

Attachment D – U.S. Patent No. 11,396,244 (“the ’244 Patent”)

Toyota’s User Profile technology provides users of Toyota’s vehicles (including Toyota and Lexus-branded vehicles) the ability to customize their driving experience, with each user profile tailored to the user’s individual preferences and settings, such as personalized navigation and music streaming preferences, vehicle setting preferences, radio preferences, as well as vehicle and notification settings. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US.

Toyota Connected Services technology – whether offered in conjunction with User Profile technology or as a standalone service – also includes the ability to transfer user profiles between vehicles using cloud services via a digital device (e.g., smartphone, smartwatch, digital assistant) application. As Toyota advertises, Connected Services technology, such as Remote Connect and Drive Connect, allow a user to remotely access a User Profile, change User Profile settings, and customize User Profile settings for a vehicle. See Toyota, Audio Multimedia and Connected Services, at <https://www.toyota.com/connected-services/>; see also Lexus, Privacy Rights, at <https://www.lexus.com/privacy> (Lexus Connected Services is a division of Toyota Motor Sales USA, Inc.).

The Accused Server Instrumentalities (referred to herein as the Accused Instrumentalities) include servers used to support or implement Toyota’s Connected Services technology (references to which include the Lexus-branded equivalent), such as Remote Connect and Drive Connect, which are included as a trial subscription service plan to all or some Connected Services as part of the purchase price of select vehicles, as well as Connected Services Subscription Plans with User Profile capability, such as the Music Lover, Go Anywhere, and Premium subscription plans, and including those set forth in the cover pleading accompanying this claim chart (including as may be amended). See, e.g., Toyota Support Home, Subscription Plans, at https://support.toyota.com/s/article/Subscription-Plans?language=en_US. Based on Toyota’s marketing materials and sales information, a subscription is included and/or activated automatically when a vehicle is initially sold.

The Accused Instrumentalities include Toyota’s servers that are used to support or implement Toyota’s collection, use, dissemination and sale of User Profile data, which (1) Toyota itself uses to provide, offer to sell, and sell other Toyota services and products, (2) Toyota shares with third parties, (3) Toyota sells to third parties, and (4) Toyota itself uses to create its Mobility Services Platform feature (“MSPF” or “MSP”). Examples include Toyota’s sales of User Profile data to third parties who offer services to the user and/or for their own marketing purposes, Toyota’s sharing of profile data with third parties who offer their services to the user and/or for their own marketing purposes, Toyota’s sharing of profile data for targeted advertising, and Toyota’s own use of User Profile data to offer or sell additional services and products to the user. See Toyota, Your Privacy Rights (October 24, 2023), at <https://www.toyota.com/support/privacy-notice/>; For example, Toyota shares User Profile data to insurance companies, enabling such

third-party insurers to make sales offers to user. See Toyota Pressroom, Toyota Expands Partnership with Connected Analytic Services, at <https://pressroom.toyota.com/toyota-expands-partnership-with-connected-analytic-services/>. Toyota’s use, sharing, and sale of User Profile data further includes the sharing and sale of User Profile data for third party service providers, such as rental car companies, car-sharing companies, mobile retailers, etc. and is further used to create Toyota’s Mobility Services Platform. See United States Securities and Exchange Commission, Toyota Motor Corporation, Form 20-F (June 30, 2023), at <https://app.quotemedia.com/data/downloadFiling?webmasterId=90423&ref=317596090&type=PDF&symbol=TOYOF&cdn=01303c2712e9b793c3df5155e787e8e1&companyName=Toyota+Motor+Corporation&formType=20-F&formDescription=Annual+and+transition+report+of+foreign+private+issuers+%5BSections+13+or+15%28d%29%5D&dateFiled=2023-06-30>; and see Automotive Logistics, Channel[ing] Big Data into Connected Services at Toyota (April 10, 2019), at <https://www.automotivelogistics.media/digital-technology/channelling-big-data-into-connected-services-at-toyota/37898.article>.

The Accused Instrumentalities include Toyota’s servers that are used to support or implement Rent a Toyota, wherein Toyota’s use of User Profile data enables Toyota’s provision of services and sales to “Rent a Toyota” customers. See Toyota, Rent a Toyota, FAQ (2023), at <https://www.toyota.com/rental/faq.html>. For example, when a user registers a User Profile with Toyota, the Toyota app dashboard advertises to the user the ability to add a vehicle or rent a Toyota vehicle. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at <https://connectedtechnologiestoyota.com/toyota/feature/Toyota%20App/c0dafef0-1bde-11ec-b8cc-7df09d7dbdc2?model=&year=null>; see also Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, at <https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/52ba95c0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023>; see Lexus, Connected Technology Support, Home, UX 250H, 2024, Support Topics, User Profile, How to Create a User Profile?, at <https://lexusconnectedtechnologysupport.com/lexus/feature/User%20Profile/6ba8b100-0929-11ed-a686-85aa58672a6c?model=UX%20250H&year=2024>. Toyota’s Rent a Toyota service uses User Profile data from Rent a Toyota customers, *inter alia*, “to provide Connected Services and for internal research and data analysis.” Toyota Rent a Toyota further uses User Profile data for “navigation assistance and to activate remote services.” See Toyota, Rent a Toyota, FAQ (2023).

While this chart principally identifies information related to Toyota branding, substantially similar (or identical) features are included in relation to Lexus-branded vehicles, with documentation that largely mirrors the Toyota-branded ones, indicating they are equivalent in relevant respects. For example, 2024 Lexus vehicles are advertised as having “User Profiles enabl[ing] the driver’s personalized settings and experience can be kept securely in the cloud and accessed on the go in other Lexus Interface equipped vehicles.” See Lexus Pressroom, What’s New: 2024 Lexus NX 250/ 350/ 350h/ 450h+ (March 15, 2023), at <https://pressroom.lexus.com/whats-new-2024-lexus-nx-250-350-350h-450h/>; see also Lexus Pressroom, Intuitive Technology Added to 2023 Lexus LS 500, 500h with Lexus Interface Integration (November 15, 2022), at <https://pressroom.lexus.com/intuitive-technology-added-to-2023-lexus-ls-500-500h->

[with-lexus-interface-integration/](#). Additionally, instructional videos for the Lexus Interface Multimedia System are substantially the same as the Toyota Multimedia System videos identified and cited herein. See Toyota USA, How to: User Profiles on Toyota's New Audio Multimedia System / Toyota (November 17, 2021), at <https://www.youtube.com/watch?v=IBS6mlpArFQ>; and see Lexus Interface: App Registration (2023), at <https://www.lexus.com/My-Lexus/resources/video-detail-page/interface/remote-start-remote-connect>.

The Toyota User Profile is stored on the cloud, supported by Toyota data center servers, making the profile portable from vehicle to vehicle, and accessible to the user from a Toyota application. See Toyota Newsroom, Toyota Motor North America Introduces Next-Generation Multimedia System To Deliver Best In-Car User Experience (June 11, 2021), at <https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; see also Toyota Audio & Connected Services Support, Home/ BZ4X / 2023 / Support Topics / Toyota User Profile, at <https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/52cdcfa0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023>.

Toyota's User Profile functionality is achieved using vehicle-embedded hardware devices, including a Toyota factory-installed data communication module ("DCM") and a Toyota factory-installed telematics system. See Toyota Connected Services Terms of Use, Effective March 7, 2023, at 2, at <https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf>; see Toyota Putting Software First in Global, Connected-Car Architecture—Toyota tags its North American team to lead its worldwide connectivity efforts, using a whole-cloth in-house data approach to monetize convenience (November 9, 2021), at <https://www.mobilityengineeringtech.com/component/content/article/ae/stories/news/45165>; see also Lexus Connect, FAQ, What is a DCM?, at <https://faq.lexus-connect.com/11104-en/>; and see Lexus, Support Home, What is Lexus Service Connect? (September 24, 2022), at <https://support.lexus.com/s/article/What-is-Lexus-Service-9420>.

The DCM is an embedded cellular device which enables wireless/GPS technology and allows Toyota to collect data from the user and the user's vehicle. See Toyota Connected Services Terms of Use, Effective March 7, 2023, at 2. The telematics system uses digital wireless telecommunications technology and GPS technology to enable Toyota Connected Services and Toyota-installed software via third party wireless networks, satellites, and related infrastructure. See *id.* at 2, 8; and see Toyota, 2023 Highlander Owner's Manual, Audio & Multimedia, Connected Services, Connected Services overview, Types of functions, at <https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.ibo1649038197243>; see also Toyota, 2023 Highlander Owner's Manual, Audio & Multimedia, Connected Services, Connected Services overview, Functional

overview, at <https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.fgi1649038197149>.

Toyota User Profile technology also includes the ability to change or customize settings and perform other functions via a smartphone (or other comparable device) application.

Toyota instructs and encourages customers to utilize infringing Toyota User Profile technology, including through user manuals and instructional videos. Toyota also instructs, encourages, and provides assistance to other entities (e.g., on information and belief, rental car companies, fleet managers, hospitality) to activate and utilize infringing Toyota User Profile technology.

Toyota places the Accused Instrumentalities in communication with Toyota Connected Services and Toyota Mobility Intelligence Platform (including a server/cloud infrastructure) to enable User Profile and Connected Services technologies and related products and services, including permissions, usage conditions, analytics, notifications, and the like.

The asserted claims include elements that are implemented, at least in part, by proprietary and specialized electronics, firmware and software in the Accused Instrumentalities. The precise designs, processes and algorithms used in them are held in secret, at least in part, and are not publicly available in their entirety. An analysis of Toyota's and third-parties' documentation and/or source code may be necessary to fully describe all infringing features and functionalities of the Accused Instrumentalities. Accordingly, Plaintiff reserves the right to supplement these contentions, including as discovery progresses, in view of any non-infringement arguments Toyota may make (e.g., to allege infringement under the doctrine of equivalents), in view of the Court's final claim construction in this action and in connection with expert reports.

As demonstrated in the chart below, the Accused Instrumentalities practice every asserted claim of the '244 patent. Emerging Auto has filed a certificate of correction with the Patent Office to request additional claim language in certain claim limitations, shown in the chart below in brackets ("[" and "]"). To the extent the certificate of correction is entered, the Accused Instrumentalities would also practice the asserted claims having the additional language, as demonstrated in the chart below.

Claim 1	Toyota Accused Instrumentalities
1[Pre]	The Accused Instrumentalities include all servers ¹ that are associated with implementing any connected service for Toyota and Lexus. Whether Toyota or Lexus-branded, the accused functionalities of the Toyota

¹ A "server" or "servers," whether used in the singular or plural in the charts herein, applies to one server or multiple servers.

Claim 1	Toyota Accused Instrumentalities
1. A method executed by a server of a cloud services system that is configured to interface with vehicles, comprising:	Accused Instrumentalities operate in the same manner for purposes of this patent. Product documentation reflects the interchangeability of the Accused Instrumentalities as between Toyota and Lexus brands.² The Toyota Accused Instrumentalities perform the method of claim 1. Whether or not this preamble is considered to be limiting, the Toyota Accused Instrumentalities are configured to perform the method of claim 1, including by a server of a cloud system configured to interface with vehicles to enable access to User Profiles. For example, Toyota Accused Instrumentalities with Connected Services³ are configured to communicate with a server of Remote Connect or Drive Connect services to enable access to User Profiles. For example, Toyota, through the manufacture, offer of sale, and sale of vehicles equipped with hardware and software enabling User Profile functionality, as well as Toyota applications, e.g. the Toyota app, and supporting infrastructure, e.g. cloud servers, performs the recited method for setting and transferring user profiles to vehicles as set forth in claim 1. <i>See, e.g.</i>, Toyota Newsroom, Innovation, Toyota Motor North America Introduces Next-Generation Multimedia System to Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/:

² See, e.g., Lexus Support, <https://support.lexus.com/s/article/If-I-own-a-Lexus-and-10451>; Lexus Support, https://support.toyota.com/s/article/If-I-own-a-Toyota-and-10534?language=en_US; Lexus, Privacy Rights, <https://www.lexus.com/privacy>; Lexus Connect Services Privacy Statement, <https://www.lexus.com/privacyvts>.

³ Toyota Connected Services include User Profile capability, such as Remote Connect and Drive Connect. Toyota provides User Profile access to users who agree to Toyota's provision of Connected Services and Terms of Use, for example, via a Trial Service Plan or Standard Service Plan. Such Connected Services are included as a trial subscription service plan to all or some Connected Services as part of the purchase price of select vehicles, as well as Connected Services Subscription Plans with User Profile capability, such as the Music Lover, Go Anywhere, and Premium subscription plans. *See, e.g.*, Toyota Support Home, Subscription Plans, at https://support.toyota.com/s/article/Subscription-Plans?language=en_US.

Claim 1	Toyota Accused Instrumentalities
	In the age of digital transformation in mobility, having a more personalized experience that moves from vehicle to vehicle with the driver is essential. Through the new multimedia system's User Profile feature, the driver's personalized settings and experience, from preferred media or radio station to climate settings in some models, will be retained and accessible when the driver next returns to the vehicle. ... • User Profiles– To help improve the user's overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. Using a Toyota app, users of connected Toyota vehicles can link a User Profile associated with the registered name of the user to a vehicle. Toyota enables users to customize settings for their User Profile, for example, the Toyota app prompts the user to enter requested personal data and select preferred settings, such as audio preferences, cloud navigation preferences, and vehicle settings, which may vary by vehicle. Toyota stores the User Profile data on cloud servers. A user can access the Toyota app to associate their User Profile(s) with a Toyota vehicle and/or rent a Toyota vehicle, and through its vehicle hardware and software, which enable communication with a Toyota server, Toyota makes the User Profile portable from vehicle to vehicle. See Toyota Newsroom, Toyota Motor North America Introduces Next-Generation

Claim 1	Toyota Accused Instrumentalities
	Multimedia System To Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/; see also Toyota, Audio & Connected Services Support, Home, BZ4X, Support Topics, Toyota User Profile, at https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/52cdcfa0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023; see also RCR Wireless News, Toyota Connected and NTT Data to collaborate on mobility service business, April 2020, at https://www.rcrwireless.com/20200408/news/toyota-connected-ntt-data-collaborate-mobility-service-business (Toyota describing “its cloud data center for big data collected from connected cars”). Toyota uses the vehicle’s communication circuitry, such as factory installed telematics system and factory-installed data communication module (“DCM”), to communicate stored User Profile data among Toyota’s server, the multimedia system of the User Profile-associated vehicle, and a linked identification device, such as a smart phone or smart key. See Toyota Connected Services Terms of Use, Effective March 7, 2023, at 1-2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf. As an example, the DCM is an embedded cellular device which enables wireless/GPS technology and allows Toyota to collect data from the user and the user’s vehicle. See <i>id.</i> The telematics system uses digital wireless telecommunications technology and GPS technology to enable Toyota Connected Services and Toyota-installed software via third party wireless networks, satellites, and related infrastructure. See <i>id.</i> at 2, 8; and see Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Types of functions, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.ibo1649038197243:

Claim 1	Toyota Accused Instrumentalities
	Types of functions PREVIOUS SECTION < Functional overview NEXT SECTION Before using the function > The functions included are classified into the following types. - Type A: Function achieved by using DCM and the system - Type B: Function achieved by using DCM - Type C Function achieved by using DCM and a smartphone Function Type User Profile, Drive Connect, Wi-Fi Connect, OTA Type A Safety Connect Type B Remote Connect, Service Connect Type C See also Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Functional overview, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.fgi1649038197149:

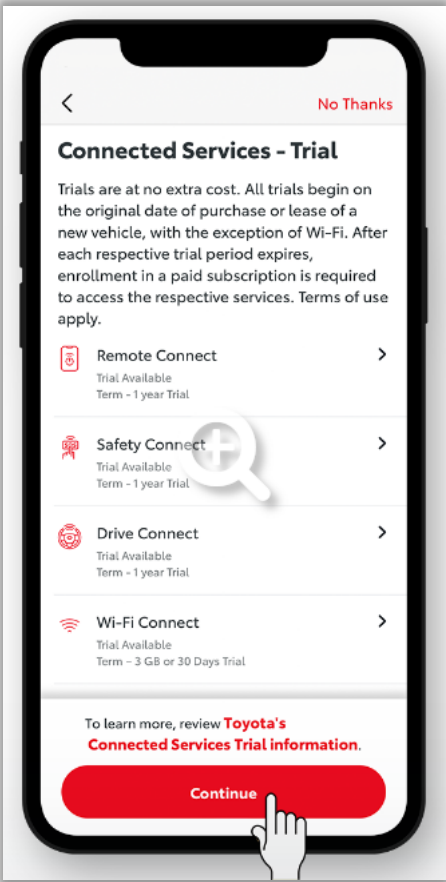
Claim 1	Toyota Accused Instrumentalities
	Type A: Function achieved by using DCM and the system PREVIOUS SECTION < Before using the function NEXT SECTION Type B: Function achieved by using DCM > The functionality of User Profile, Drive Connect (Cloud Navigation, Intelligent Assistant, Destination Assist), Wi-Fi Connect (Wi-Fi Hotspot, Integrated Streaming) is made possible through the shared work of the DCM and the system. These services are available by subscription on select, telematics hardware- equipped vehicles and supported by the Toyota, which operates 24 hours a day, 7 days a week. For details about: - User Profile: Registering a user profile - Intelligent Assistant: Using the Intelligent Assistant system - Cloud Navigation: Cloud navigation - Destination Assist: Destination Assist - Integrated Streaming: Playing Integrated Streaming - Wi-Fi Hotspot: Setting Wi-Fi Hotspot The Accused Instrumentalities further practices the method of claim 1 by providing Toyota Connected Services with User Profile capability, such as Remote Connect and Drive Connect. Toyota provides User Profile access to users who agree to Toyota’s provision of Connected Services and Terms of Use, for example, via a Trial Service Plan or Standard Service Plan. Such Connected Services are included as a trial subscription service plan to all or some Connected Services as part of the purchase price of select vehicles, as well as Connected Services Subscription Plans with User Profile capability, such as the Music Lover, Go Anywhere, and Premium subscription plans. See, e.g., Toyota Support Home, Subscription Plans, at https://support.toyota.com/s/article/Subscription-Plans?language=en_US.

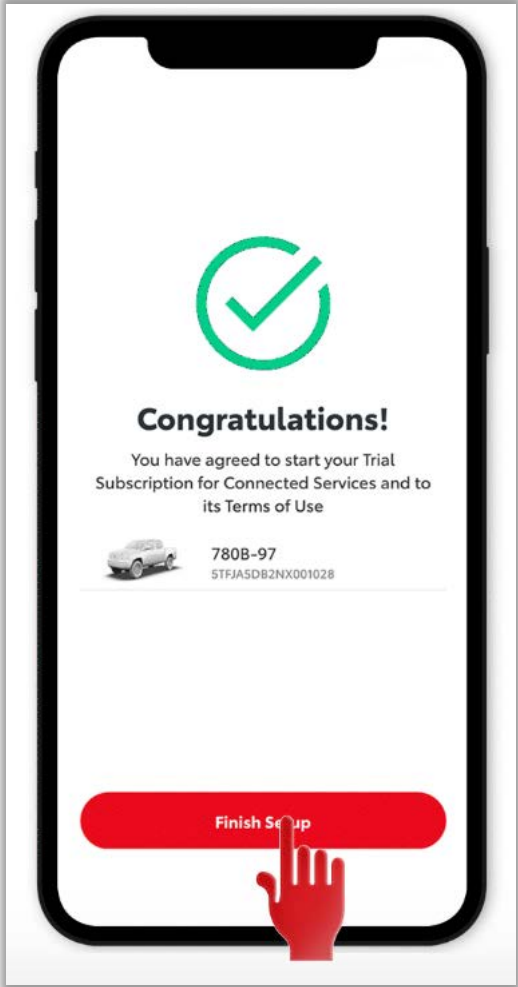
Claim 1	Toyota Accused Instrumentalities
	Before using the function PREVIOUS SECTION < Types of functions NEXT SECTION Type A: Function achieved by using DCM and the system > Subscription - After you have accepted the Connected Services Agreement (Connected Services Terms of Use and Connected Services Privacy Notice) on the Toyota App when you register the vehicle to your account, you can begin receiving services. A variety of subscription agreements are available. Contact your Toyota dealer, or call 1-800-331-4331 in the United States, 1-877-855-8377 in Puerto Rico, or 1-888-869-6828 in Canada. Availability of function(s) These functions are not made available in some countries, areas, or on some models.

Claim 1	Toyota Accused Instrumentalities
	What is a User Profile? A User Profile is created when you register an account within the Toyota app. Used on select model year 2022 & newer vehicles, User Profile allows for you & other drivers of the vehicle to customize their driving experience. Personalized settings and preferences stored in your profile are accessed when the vehicle recognizes the profile using any one of the identification devices supported. Conveniently save a total of three (3) User profiles to a vehicle, one (1) Primary Driver & two (2) additional User Profiles. Each is tailored to their individual preferences and settings. The multimedia system in the vehicle first detects your profile when your Toyota app is open and signed in, and Bluetooth® is enabled on your smartphone. Once your profile is saved to the vehicle's multimedia system it can be linked to your mobile phone or smart key fob so it is detected automatically when you enter the vehicle. For additional assistance with User Profile, please visit our Audio & Connected Services Support Tool or reference your Owner's Manual. ... <i>Use only if aware of circumstances surrounding vehicle and it is legal and safe to do so (e.g., do not remotely start engine if vehicle is in an enclosed space or vehicle is occupied by a child). Toyota Digital Key depends on factors outside of Toyota's control, including an operative Bluetooth capable smart device, without which system functionality and availability may be limited or precluded. Service may vary by vehicle and region. Registration and Toyota app download required. Subscription required after trial. Terms of Use apply. Data charges may apply. Services subject to change at any time without notice. See usage precautions and service limitations in the Toyota Owner's Manual for additional details. To learn about Toyota's data collection, use, sharing and retention practices, please visit https://www.toyota.com/privacytvs/.</i>

Claim 1	Toyota Accused Instrumentalities
	See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US. Toyota App User Profile Eligibility <i>Which vehicles are equipped with a User Profile feature?</i> The User Profile capability is available on select model year 2022 and newer vehicles. You can review your vehicles features and capabilities within the Toyota app or refer to your Owner's Manual. You can review your vehicle's Connected Services within the Toyota app or for assistance on how to subscribe to Connected Services please visit our Audio & Connected Services Support tool. <i>The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Toyota is under license. A compatible Bluetooth enabled phone must first be paired. Phone performance depends on software, coverage and carrier.</i> <i>Use only if aware of circumstances surrounding vehicle and it is legal and safe to do so (e.g., do not remotely start engine if vehicle is in an enclosed space or vehicle is occupied by a child). Toyota Digital Key depends on factors outside of Toyota's control, including an operative Bluetooth capable smart device, without which system functionality and availability may be limited or precluded. Service may vary by vehicle and region. Registration and Toyota app download required. Subscription required after trial. Terms of Use apply. Data charges may apply. Services subject to change at any time without notice. See usage precautions and service limitations in the Toyota Owner's Manual for additional details. To learn about Toyota's data collection, use, sharing and retention practices, please visit https://www.toyota.com/privacyvts/.</i>

Claim 1	Toyota Accused Instrumentalities
	See Toyota, Support Home, Toyota App User Profile Eligibility, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10736?language=en_US. The image shows a smartphone screen displaying the Toyota app interface. At the top, it says 'Stay connected wherever you go' with a clock and user icon. Below this is a section with three car images and an 'Add a Vehicle' button. Further down is a 'Rentals' section with a magnifying glass icon, the text 'Rent a Toyota', 'Find your favorite vehicle to rent', and a 'Make a Reservation' button. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://connectedtechnologiestoyota.com/toyota/feature/Toyota%20App/c0dafef0-1bde-11ec-b8cc-7df09d7dbdc2?model=&year=null; see <i>id.</i>:

Claim 1	Toyota Accused Instrumentalities
	 <i>And see id.:</i>

Claim 1	Toyota Accused Instrumentalities
	

Claim 1	Toyota Accused Instrumentalities
	2. SERVICE REQUIREMENTS; SERVICE PROVIDERS; LIMITATIONS; APP (a) To obtain Services: (i) your Vehicle must contain a factory installed telematics system (the “System”) – see Section 11(a) for more details; (ii) your Vehicle must include the software installed by or on behalf of Toyota with all updates made available to you by Toyota (whether such update installed by you, Toyota or a dealer) (collectively, the “Software”) – for more details, see the EULA referenced in Section 1(b) above; (iii) the DCM must be on/active and properly functioning; and (iv) you must have an active Service Plan as provided under Section 3(b) below. (b) Service Plans. Certain new Vehicles come with a trial subscription Service Plan to all or some Services (“Trial Service Plan”). For all other Vehicles, you can obtain the Services by subscribing to an available monthly, annual, or other Service Plan via the App or Website, by contacting us or through other options we may make available to you from time-to-time (“Standard Service Plan”). Unless otherwise noted, all references to “Service Plan” refer to both a Trial Service Plan and Standard Service Plan. You may terminate your Service Plan as provided in Section 7 below. We may terminate your Service Plan or any of the Services at any time as provided in Section 8 below. (i) <i>Trial Service Plans.</i> A Trial Service Plan includes any of the Services included in the price of your Vehicle, whether or not labelled as “Trial”. The duration of your Trial Service Plan, along with the Services available through the Trial Services Plan, will vary by Vehicle and available options. See Toyota Connected Services Terms of Use, Effective March 7, 2023, at 2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf; and see, e.g., Toyota, 2023 Audio Multimedia & Connected Services, Feature Applicability, at https://www.toyota.com/content/dam/toyota/audio-multimedia/pdf/new/MY23_Connected_Services_and_Audio_Multimedia_features-Applicability.pdf:

Claim 1

Toyota Accused Instrumentalities

2023
Audio Multimedia & Connected Services
Feature Applicability

Connected Services Plans

	Connected Services ¹		
	 Remote Connect ^{2,5} Start, lock/unlock your doors and more	 Integrated Streaming Access to your Apple Music® and Amazon Music™ accounts	 Drive Connect ⁷ Cloud Navigation, Intelligent Assistant, and Destination Assist
 Music Lover \$15/Month	✓	✓	X
 Go Anywhere \$15/Month	✓	X	✓
 Premium \$25/Month	✓	✓	✓

OPTIONAL ADD-ON

Wi-Fi Connect
 \$25/Month via AT&T

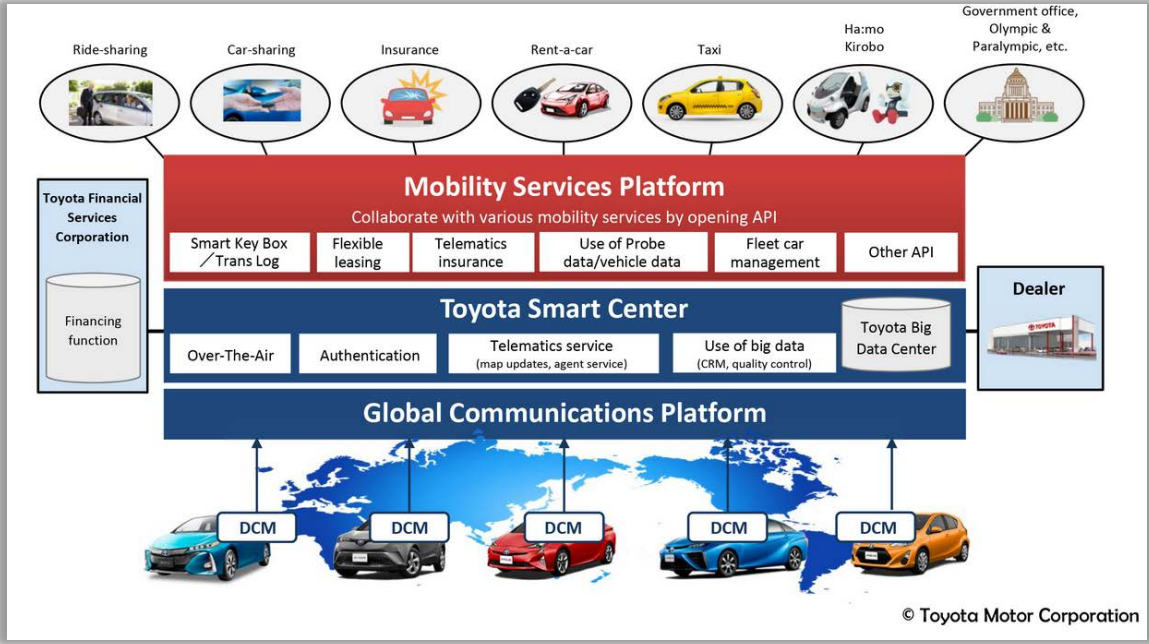
Connected by AT&T, Wi-Fi Connect is your gateway to keeping up with important information while on the go. Easily connect up to five devices at 4G LTE speeds.

*No restriction on data consumption for Integrated Streaming for customers who purchase the Music Lover or Premium Plan.

Additionally, the Accused Instrumentalities perform the method of claim 1 through Toyota’s servers that are used to implement Toyota’s collection of User Profile data, which (1) Toyota itself uses to provide, offer to sell, and sell other Toyota services and products, (2) Toyota shares with third parties, (3) Toyota sells to third parties, and (4) Toyota itself uses to create its Mobility Services Platform feature (“MSPF” or “MSP”). Examples include Toyota’s sales of User Profile data to third parties who offer services to the user and/or for their own marketing purposes, Toyota’s sharing of profile data with third parties who offer their services to the user and/or for their own marketing purposes, Toyota’s sharing of profile data for targeted advertising, and Toyota’s own use of User Profile data to offer or sell additional services and products to the user. See Toyota, Your Privacy Rights, at <https://www.toyota.com/support/privacy-notice/>.

Claim 1	Toyota Accused Instrumentalities
	For example, Toyota Connected advertises itself as a company which uses “big data collected from vehicles and analyzed on a cloud platform” to “humanize the driving experience by providing customers secure, seamless and contextual services, elevating the customer experience while benefiting dealers, distributors, and partners”: About Toyota Connected, Inc. Based in Plano, Texas, Toyota Connected North America (TCNA) was established in 2016 to drive Toyota's global efforts for an intelligent mobile society. With big data collected from vehicles and analyzed on a cloud platform, Toyota Connected humanizes the driving experience by providing customers secure, seamless and contextual services, elevating the customer experience while benefiting dealers, distributors, and partners. At the heart of TCNA is Toyota's belief in human-centered mobility and a fundamental commitment to personal privacy. See Toyota Connected, Toyota Connected Leverages Twilio to Build A Faster and More Responsive ‘Drivelink’ Experience, at https://toyotaconnected.com/insights/drivelink-experience. The Accused Instrumentalities utilize Connected Services to collect data from connected vehicles, and Toyota creates “new value” for the company by utilizing this data to deliver additional Toyota products and services and promote collaborations with third party service providers. So significant is the value of

Claim 1	Toyota Accused Instrumentalities
	data collected from connected vehicles, “Toyota is working towards having all of its vehicles become connected vehicles”: To date, Toyota has sold 20 million Lexus and Toyota vehicles that are connected cars, mainly in Japan, the United States, Europe, and China. Toyota’s vision of the connected car is not simply one of connecting the car to the internet. Rather, it is about providing customers with emotional experiences through the movement of people, goods, and activities — a vision centered on people that we call “human connected.” To achieve this, we are operating a call center as a point of contact with customers; the Toyota Smart Center, which provides a variety of services; and the Toyota Big Data Center, which utilizes vehicle information gathered from cars. In addition, we have established the Mobility Service Platform (“MSPF”) to provide mobility services and are promoting collaboration with service providers. Connected cars and connected technologies will be applied to a variety of areas, and we anticipate that which is to be connected will expand to include people, cars, communities, and society (business-to-society, or BtoS). Toyota will handle the information gathered from customers and vehicles with care, utilizing it for the happiness of customers and the development of society while creating new value from experiences centered on mobility. ... through the purchase of installment and lease contracts originated by Toyota dealers. Related to Toyota’s automotive operations, Toyota is working towards having all of its vehicles become connected vehicles, creating new value and reforming businesses by utilizing big data obtained from those connected vehicles, and establishing new mobility services. Toyota’s all other operations business segment includes the information technology related businesses including a web portal for automobile information called GAZOO.com. See United States Securities and Exchange Commission, Toyota Motor Corporation, Form 20-F, June 30, 2023, at https://app.quotemedia.com/data/downloadFiling?webmasterId=90423&ref=317596090&type=PDF&symbol=TOYOF&cdn=01303c2712e9b793c3df5155e787e8e1&companyName=Toyota+Motor+Corporation&formType=20-F&formDescription=Annual+and+transition+report+of+foreign+private+issuers+%5BSections+13+or+15%28d%29%5D&dateFiled=2023-06-30. Toyota’s use, sharing, and sale of User Profile data includes the sharing and sale of User Profile data with/to third party service providers, such as insurance companies, rental car companies, car-sharing companies, mobile retailers, etc. Moreover, Toyota’s collection, use and transfer of User Profile data is used to create Toyota’s Mobility Services Platform, as depicted in the graphic below.

Claim 1	Toyota Accused Instrumentalities
	 The diagram illustrates Toyota's Mobility Services Platform architecture. At the top, various mobility services are shown: Ride-sharing, Car-sharing, Insurance, Rent-a-car, Taxi, Ha:mo Kirobo, and Government office, Olympic & Paralympic, etc. These services are connected to the Mobility Services Platform, which collaborates with various mobility services by opening API. The platform includes components like Smart Key Box / Trans Log, Flexible leasing, Telematics insurance, Use of Probe data/vehicle data, Fleet car management, and Other API. To the left, Toyota Financial Services Corporation provides a Financing function. Below the Mobility Services Platform is the Toyota Smart Center, which includes Over-The-Air, Authentication, Telematics service (map updates, agent service), Use of big data (CRM, quality control), and the Toyota Big Data Center. A Dealer is also shown. At the bottom, the Global Communications Platform connects to several cars labeled DCM (Data Center Module). The copyright notice at the bottom right reads © Toyota Motor Corporation. See IEEE, Connected & Autonomous Vehicles, Toyota establishes a Mobility Services Platform and announces collaboration with a car-sharing company, at https://site.ieee.org/connected-vehicles/2016/10/31/toyota-establishes-mobility-services-platform-announces-collaboration-car-sharing-company/. Toyota operates “its cloud data center for big data collected from connected cars” and is developing “new mobility services that utilize integrated vehicle connectivity and big data”:

Claim 1	Toyota Accused Instrumentalities
	In the automotive industry, the value of cars is changing significantly, due to diversification of market needs, the development of new areas such as MaaS and CASE, the entry of new industries utilizing IoT technology, and the emergence of new services such as ride sharing and car sharing. Toyota entered this era by announcing its Connected Strategy at the end of 2016. In order to accelerate MaaS initiatives, Toyota is promoting the deployment of MSPF that supports the MaaS strategy. Toyota Connected will develop MSPF and operate its cloud data center for big data collected from connected cars, which are increasing by millions each year worldwide. ... "This business alliance with NTT Data, with its open and advanced software development capabilities, will enable us to take care of accelerating the development of our TOYOTA's connected strategies. The alliance will strengthen the global structure for providing higher quality mobility services, and contribute to the creation of a thriving mobility society." said Shigeki Tomoyama, President, Toyota Connected. ... Toyota Connected, uses technology and automotive and IT know-how to create new mobility services that utilize integrated vehicle connectivity and big data. See RCR Wireless News, Toyota Connected and NTT Data to collaborate on mobility service business, April 2020, at https://www.rcrwireless.com/20200408/news/toyota-connected-ntt-data-collaborate-mobility-service-business. Toyota's "ingestion" and "analytics" of data from connected vehicles, including User Profile data, enables Toyota to "create the Mobility Service Platform[,] which "enables in turn other services":

Claim 1	Toyota Accused Instrumentalities
	“Thanks to that ingestion of data and the analytics of it, we can create the Mobility Service Platform. That is an open architecture that enables in turn other services,” he said. “You can imagine the vast quantity of information that is going through the Toyota Big Data Centers across the world. Our ability to turn this data into insights and those insights into relevant services is what we are talking about.” See Automotive Logistics, Channel[ing Big Data into Connected Services at Toyota, at https://www.automotivelogistics.media/digital-technology/channelling-big-data-into-connected-services-at-toyota/37898.article. For example, Toyota’s collection of User Profile data is used by Toyota to offer additional Toyota services, such as Navigation services. • Navigation. Your vehicle’s <i>navigation</i> feature (such as Drive Connect) allows you to choose a place of interest, a location on a map, one of your favorites, a destination from your history, or enter an address or coordinates (latitude and longitude). In certain vehicles, navigation includes the Destination Assist program, which connects you with a live agent to provide navigation directions. Your vehicle’s Location Data, Profile Data (such as in-vehicle preferences, favorites, and usage history), and your Account Information are used to verify your account and to offer these features. See Toyota Privacy Notice, Connected Services, Intro, at https://www.toyota.com/privacyvts/.

Claim 1	Toyota Accused Instrumentalities
	As another example, Toyota shares User Profile data with insurance companies, enabling such third-party insurers to make sales offers to users. “Toyota’s Connected Services provide value to customers by offering them unprecedented convenience and peace of mind,” said Steve Basra, group vice president of Connected Technologies at Toyota Motor North America. “Using the latest technologies, we’re able to provide more features and safety resources than ever before. We work with CAS to empower interested customers to use their driving data to obtain potential insurance savings. It’s a great example of how new technology can benefit customers in ways never before possible.” See Toyota Pressroom, Toyota Expands Partnership with Connected Analytic Services, at https://pressroom.toyota.com/toyota-expands-partnership-with-connected-analytic-services/. The Accused Instrumentalities further perform the method of claim 1 through Toyota’s servers that are used to implement Rent a Toyota service and platform, wherein Toyota’s collection and transfer of User Profile data enable Toyota’s provision of services and sales to “Rent a Toyota” customers. For example, when a user registers a User Profile with Toyota, the Toyota app dashboard advertises to the user the ability to add a vehicle or “Rent a Toyota” vehicle:

Claim 1	Toyota Accused Instrumentalities
	The image shows a smartphone screen displaying the Toyota mobile application. At the top, it says "Stay connected wherever you go" with a moon and user icon. Below this is a section with three car images and a button labeled "Add a Vehicle". Further down is a "Rentals" section with a magnifying glass icon, a "Rent a Toyota" header, the text "Find your favorite vehicle to rent", and a "Make a Reservation" button. The background of the rental section shows two cars on a road. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://connectedtechnologiestoyota.com/toyota/feature/Toyota%20App/c0dafef0-1bde-11ec-b8cc-7df09d7dbdc2?model=&year=null; see also Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, at

Claim 1	Toyota Accused Instrumentalities
	https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/52ba95c0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023. Toyota’s Rent a Toyota service uses User Profile data from Rent a Toyota customers, <i>inter alia</i>, “to provide Connected Services and for internal research and data analysis.” Toyota Rent a Toyota further uses User Profile data for “navigation assistance and to activate remote services.” Profile: What information is required in my Toyota app profile? If you have already accessed the Toyota app, your profile is already setup. To complete a rental reservation in the Toyota app, you will need to provide valid driver details. You also have the option to upload your driver’s license and insurance information to save time at the counter.

Claim 1	Toyota Accused Instrumentalities
	Profile and Security: 1. Is the rental vehicle equipped with connected services? If so, how are they used? Toyota Connected Services Privacy and Protection Notice. Your rental vehicle may wirelessly transmit location, driving, and vehicle health data to provide Connected Services and for internal research and data analysis. Connected Services include the use of this vehicle data to respond to emergencies, navigation assistance, and/or to activate remote services. We also collect and use your personal information to facilitate your usage of Connected Services, fulfill your requests, and to manage our relationship with you. To learn more, please visit www.toyota.com/privacyts. See Toyota, Rent a Toyota, FAQ, at https://www.toyota.com/rental/faq.html. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise

Claim 1	Toyota Accused Instrumentalities
	modify these contentions in response to non-public documents, including source code, provided in this matter.
1[a] receiving, by the server, a request from electronics of a vehicle to access a profile for a user account, the request identifies user information for a user to use the vehicle;	<i>See claim 1[pre], above.</i> The Accused Instrumentalities perform the method of claim 1, including receiving, by the server, a request from electronics of a vehicle to access a profile for a user account, the request identifies user information for a user to use the vehicle. As described above, Toyota provides a Toyota app for users to register and specify user-profile settings for a vehicle associated with a User Profile, such as music preferences, weather alerts, climate settings, etc.; Toyota stores the User Profile data to a cloud server. Toyota's User Profile functionality allows for three User Profiles per vehicle, wherein each of the three users can customize their own "driving positions, multimedia settings, and other vehicle settings," including different settings allowable for the primary driver.

Claim 1	Toyota Accused Instrumentalities
	User profiles Driving positions, multimedia settings, and other vehicle settings for each driver can be saved and the applicable driver can load them when driving the car. ● Up to three user profile can be registered. ● The following setting information can be saved in a profile: • Some multimedia settings : Volume and tone quality, navigation system, audio, etc. • Some vehicle settings : Driving position, air conditioning, meters, etc. ● Vehicle settings are automatically saved to the current profile when they are changed. ● Search history, individual settings, and other private information can be protected by setting up a profile. ● By registering a device to identify the driver, your profile will be automatically loaded. You can select a smartphone and smart key as the device to be registered. ...

Claim 1	Toyota Accused Instrumentalities
	■ Linking to a Toyota account ● An active Toyota account is required to use a profile. ● Registered profiles are saved in the cloud, so even if a profile is deleted in the vehicle, it is not deleted from the cloud. ● By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle. See Toyota, bZ4X 2023 Multimedia Owner's Manual, p. 48, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf. ● The driver who is registered as the owner can delete all drivers registered in the vehicle. Drivers who are not the vehicle owner cannot delete the owner's profile. ● The same profile cannot be used in another vehicle at the same time. ● Changing the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears. ● User profile portability from vehicle to vehicle may not be available in the regions other than the U.S. 48 States. <i>Id.</i> at 49; and see <i>id.</i> at 55:

Claim 1	Toyota Accused Instrumentalities		
	<table border="1"> <tr> <td>[Saved profiles]</td><td> The user profile registered on the vehicle are displayed in a list. Touch the profile that desired to be used and enter the PIN code to change the profile. Touching [Edit] enables saved profiles to be deleted. Profiles are still stored on the cloud, preserving all settings and personalized information. Up to three user profiles can be saved on the vehicle. </td></tr> </table> See also Lexus, Connectivity, Multimedia FAQ, What is a User Profile?, at https://www.lexus.com.au/connectivity/apple-carplay-and-android-auto-support: WHAT IS A USER PROFILE? — A User Profile is created when you register an account within the Lexus Connected app. User Profile allows for you & other drivers of the vehicle to customise their driving experience. Personalised settings and preferences stored to your profile are accessed when the vehicle recognises the profile using any one of the identification devices supported. Conveniently save a total of three (3) User profiles to a vehicle, one (1) Primary Driver & two (2) additional User Profiles. Each tailored with their individual preferences.	[Saved profiles]	The user profile registered on the vehicle are displayed in a list. Touch the profile that desired to be used and enter the PIN code to change the profile. Touching [Edit] enables saved profiles to be deleted. Profiles are still stored on the cloud, preserving all settings and personalized information. Up to three user profiles can be saved on the vehicle.
[Saved profiles]	The user profile registered on the vehicle are displayed in a list. Touch the profile that desired to be used and enter the PIN code to change the profile. Touching [Edit] enables saved profiles to be deleted. Profiles are still stored on the cloud, preserving all settings and personalized information. Up to three user profiles can be saved on the vehicle.		

Claim 1	Toyota Accused Instrumentalities
	Toyota’s User Profile functionality allows a primary driver to customize their User Profile to receive “vehicle health reports, manage services, and more,” whereas the additional two User Profiles for a vehicle cannot have these settings. See Toyota, Support, How To: User Profiles on Toyota’s New Audio Multimedia System, at https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/fc9a2440-4959-11ec-99e3-59782dff31a1?model=bZ4X&year=2023; see also Lexus Connected Technology Support, Home, UX 250H, 2024, Support Topics, User Profile, What is a User Profile?, at https://lexusconnectedtechnologysupport.com/lexus/feature/User%20Profile/6bc07ec0-0929-11ed-a686-85aa58672a6c?model=UX%20250H&year=2024:

Claim 1	Toyota Accused Instrumentalities
	GUEST MODE & PROFILE MODE If the vehicle does not detect a profile, the Lexus Interface will not load any personalized preferences or settings. This is referred to as "Guest Mode." On selecting a detected/saved profile, the Lexus Interface will load the personalized preferences or settings of that profile. This is referred to as the "Profile Mode." The below Profile types can be saved to a vehicle: Primary Driver - The main driver or vehicle's owner is the Primary Driver. Additional Profile/s- a family member or a friend who wants to access their profile preferences/settings can create additional profiles. Upto two additional profiles can be saved.

Claim 1	Toyota Accused Instrumentalities
	Toyota's connected vehicles, embedded with a DCM and telematics system, can detect Toyota User Profiles, for example, detecting User Profiles associated with Toyota app users in the vehicle's vicinity. HOME / SUPPORT TOPICS / TOYOTA APP Your Toyota User Profile should now be displayed under "Detected Profiles." To load your profile, select your "name." The User Profile name matches the first and last name you entered when registering for the Toyota App. Note: Multiple Toyota User Profiles may be detected by the Audio Multimedia system if there are other Toyota app users in the vehicle's vicinity. Make sure to choose the correct profile name you wish to load. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20App/af779a10-bbf7-11ec-9c26-bda36a4d479f?model=&year=null.

Claim 1	Toyota Accused Instrumentalities
	The vehicle's multimedia system displays a message with the option to select "settings," and within the menu there is a list of "detected profiles" from which a user can select the desired profile for the user. To load a desired user profile to a vehicle's multimedia system, Toyota's server receives a request from the vehicle to access the desired profile, and the request identifies user information for a user to use the vehicle. For example, the user can opt to save user profile data to a cloud server, as opposed to the cloud and the vehicle's multimedia system. Once the vehicle detects available Toyota User Profiles in the vehicle's vicinity, the user can select the desired profile and use a profile PIN to validate the profile. See Toyota, Support Home, Can I still use my profile if I don't want to save it to the vehicle?, at https://support.toyota.com/s/article/Can-I-still-use-my-profile-if-I-don-t-want-to-save-it-to-the-vehicle?language=en_US: Can I still use my profile if I don't want to save it to the vehicle? Yes. Your profile may be detected and loaded for use within the multimedia system without saving it. Once the profile is detected, the multimedia will display a message with the option to select "Settings." Within the menu there is a list of "Detected profiles" to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to "Save profile." If you do not wish to save the profile to the multimedia system, simply select "Do not save" when prompted. The Profile will no longer appear on the multimedia system after ACC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle. For additional assistance with User Profile please visit our Audio & Connected Services Support Tool or reference your Owner's Manual.

Claim 1	Toyota Accused Instrumentalities
	A Content providerProvides contents to the application server. B Application serverProvides applications to the system or a smartphone. C Smartphone *Using the Toyota mobile application, communication is relayed between the system, application server and content provider. D ApplicationsDisplay usable content from the content providers on the screen using the data connection of the connected smartphone or DCM. E SystemContent received, via a smartphone or DCM, from content provider servers is displayed on the screen. The system is equipped with an application player to run applications. F Via DCM See Toyota, 2022 Corolla Cross, Manuals and Warranties, Audio & Multimedia, Connected Services, Connected Services overview, Type A: Function achieved by using a smartphone or DCM, at https://www.toyota.com/owners/resources/warranty-owners-manuals.corolla-cross.2022.digital.om0a012u.ch07se010402; and see, e.g., Toyota, 2022 Highlander Hybrid, Manuals and Warranties, Audio & Multimedia, Connected Services, Connected Services overview, Type A: Function achieved by using a smartphone or DCM, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander-hv.2022.digital.om0e140u.ch09se010402. Toyota makes and sells vehicles with factory installed multimedia system hardware and software, which includes an on-board DCM. The DCM enables wireless/GPS technology and allows for the collection of data from the user and the user’s vehicle, as well as communications between the vehicle and Toyota’s server. By default, the DCM is on/active when the vehicle is delivered to the customer and will remain on/active and continue to collect data from the user and the user’s vehicle until the customer contacts Toyota and requests deactivation. See, e.g.:

Claim 1	Toyota Accused Instrumentalities
	(i) the Connected Services Privacy Notice located at www.Toyota.com/privacyvts (“Privacy Notice”). Carefully review the Privacy Notice as it applies to your personal information and Vehicle (as defined below) data that we collect, use, store, share and secure to provide the Services. Please note that your Vehicle comes with a data communication module (“DCM”) that enables the Wireless/GPS Technology, as described in Section 11(a), and allows for the collection of data from you and your vehicle (e.g., location, health and driving data). BY DEFAULT, THE DCM IS ON/ACTIVE WHEN YOUR VEHICLE IS DELIVERED AND WILL REMAIN ON/ACTIVE (AND CONTINUE TO COLLECT DATA FROM YOU AND YOUR VEHICLE) UNTIL YOU CONTACT US AND REQUEST THAT IT BE DEACTIVATED. Toyota Connected Services Terms of Use, Effective March 7, 2023, at 1-2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf; see <i>id.</i> at 2: 2. SERVICE REQUIREMENTS; SERVICE PROVIDERS; LIMITATIONS; APP (a) To obtain Services: (i) your Vehicle must contain a factory installed telematics system (the “System”) – see Section 11(a) for more details; (ii) your Vehicle must include the software installed by or on behalf of Toyota with all updates made available to you by Toyota (whether such update installed by you, Toyota or a dealer) (collectively, the “Software”) – for more details, see the EULA referenced in Section 1(b) above; (iii) the DCM must be on/active and properly functioning; and (iv) you must have an active Service Plan as provided under Section 3(b) below. Toyota advertises that its vehicles with Connected Services functionality “carry onboard technologies to process complex road data.” The data is processed via edge computing or “via cloud computing through an online server”:

Claim 1	Toyota Accused Instrumentalities
	And data engineers are working to make that data easy to consume, to process it faster via edge computing (processing data closer to the source where it is picked up, such as directly in a vehicle’s onboard computer systems) or via cloud computing through an online server. They have to be able to do this with millions of vehicles today and this number grows daily with every car sale. These vehicles carry onboard technologies to process complex road data – securely and able to scale to solve for solutions we don’t even know we need yet. See Toyota Connected, Case Study, Living on the Edge, Dreaming on a cloud, and the Big Idea of Big Data: How Toyota Connected is using Data to Make Smarter Cars, at https://www.toyotaconnected.com/insights/living-on-the-edge. Toyota stores User Profile data on cloud servers, so that “even if a profile is deleted in the vehicle, it is not deleted from the cloud.” Toyota uses the Toyota app as a platform in which the user defines settings for a User Profile and identifies an associated vehicle, enabling Toyota to receive the User Profile data at the cloud server, then transfer the User Profile data to the associated vehicle. “By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle.” See, e.g., See Toyota, bZ4X 2023 Multimedia Owner’s Manual, p. 48-49, 55, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf:

Claim 1	Toyota Accused Instrumentalities
	■ Linking to a Toyota account ● An active Toyota account is required to use a profile. ● Registered profiles are saved in the cloud, so even if a profile is deleted in the vehicle, it is not deleted from the cloud. ● By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.
1[b] processing, by the server, at least part of the user information to verify the user for accessing the profile associated with the user account, the profile having a plurality of settings of the user	See claim 1[pre], 1[a], above. The Accused Instrumentalities process at least part of the user information to verify the user for accessing the profile associated with the user account, the profile having a plurality of settings of the user for the vehicle and wherein at least part of the plurality of settings for the profile being stored on storage accessible to the cloud services system. As described above, the Toyota vehicle's embedded hardware and software enable communication between the vehicle and Toyota's server, for example, to verify user-identifying information to allow the user to access the profile associated with the user account. For example, users can access their user profile in a vehicle using a Bluetooth handheld device, such as a smartphone or a tablet, smart key, or via manual login, in order to identify and select the appropriate user profile associated with the user account.

Claim 1	Toyota Accused Instrumentalities
for the vehicle [and at least one of said plurality of settings being restricted for use on the vehicle, wherein] at least part of the plurality of settings for the profile being stored on storage accessible to the cloud services system; and	• User Profiles– To help improve the user’s overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. See Toyota Newsroom, Toyota Motor North America Introduces Next-Generation Multimedia System To Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/. Additionally, a User Profile may be applied to a vehicle after Toyota’s server has processed user information to verify the user for accessing the profile associated with the user account, for example, after the user enters a PIN, which is confirmed by the vehicle communication module’s communications with a Toyota server. As another example, if a user links a preferred identification device with their User Profile, Toyota uses vehicle embedded hardware and software to relay communications between the device and the server, using device identifier data assigned to a user’s device to verify the user for accessing the profile associated with the user account. <i>See, e.g.:</i>

Claim 1	Toyota Accused Instrumentalities
	To load your saved profile, select 'Settings' (gear icon) within the menu there is a list of 'Saved profiles' to select from. Select the desired profile for the Driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. A banner will confirm that your profile has been successfully loaded to the multimedia system. You can also Link your preferred identification device to automatically load your saved profile. For assistance on how to Link your preferred identification device please visit our Audio & Connected Services Support tool or reference your Owner's Manual. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US; see also Toyota, Privacy Notice, Connected Services, at https://www.toyota.com/support/privacy-notice/:

Claim 1	Toyota Accused Instrumentalities
	• <i>Device Identifier.</i> We automatically collect your IP address or other unique identifier ("Device Identifier") for the Device (computer, mobile phone, tablet or other device) you use to access the Platforms. A Device Identifier is a number that is assigned to your Device when you access a website or its servers, and our computers identify your device by its Device Identifier. We, and our affiliates, service providers, business partners, and other parties, including authorized dealers, may use a Device Identifier to, among other things, administer the Platforms; help diagnose problems with our servers; analyze trends; track users' web page movements over time and across different websites, Platforms, or other mobile, online, or offline services; to help identify you and your shopping cart, and gather broad demographic information for aggregate use. Also, a user can link a smart key to their User Profile, according to Toyota's instructions, and Toyota uses the vehicle's embedded hardware and software, configured to relay communications with the smart key and the Toyota server, to verify the user for accessing the profile associated with the user account.

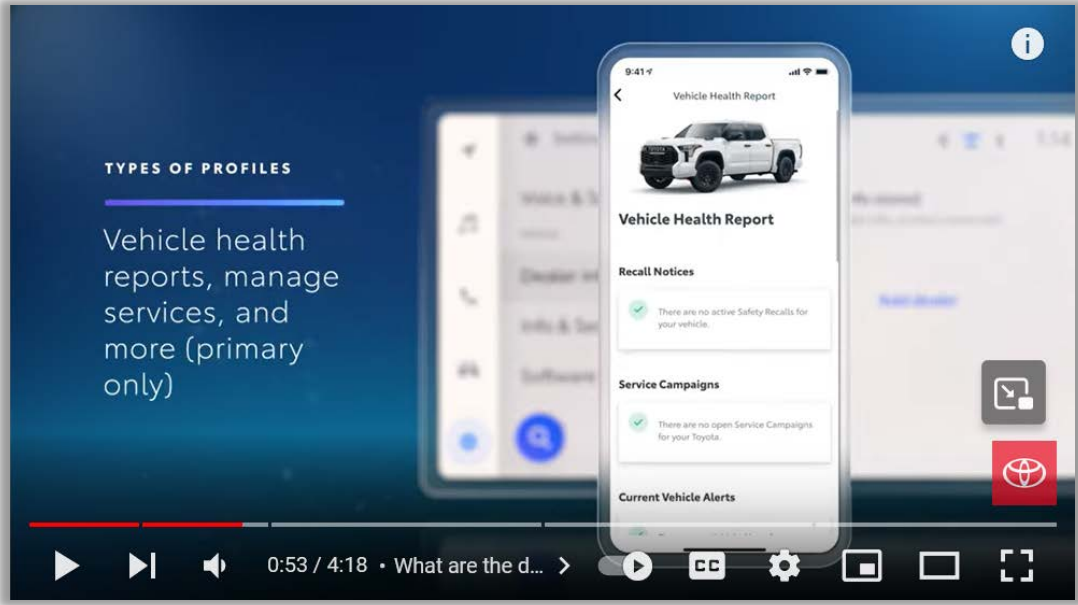
Claim 1	Toyota Accused Instrumentalities
	On select model year 2022 and newer vehicles are equipped with the User Profile feature. You can link a smartphone or smart key / key fob to identify your saved profile automatically when detected by your vehicle. To link a Smartphone to your profile, select 'Settings' (gear icon), then 'Personal info' and 'Link devices'. Continue following the instruction on the display to complete. To link a smart key / key card to your profile, select 'Settings' (gear icon), then 'Personal info' and enable the 'Link key' while your smart key / key card is in the vehicle with you. Note: Your User Profile is associated with your Digital Key and allows your profile to be loaded automatically. No further setup required. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US; see also Lexus, Support Home, How can I add My User Profile to a Vehicle?, at https://support.lexus.com/s/article/How-can-I-add-my-User-Profile-to-a-vehicle:

Claim 1	Toyota Accused Instrumentalities
	HOW CAN I ADD MY USER PROFILE TO A VEHICLE? 🕒 Sep 24, 2022 Your profile is initially detected by the multimedia system using your smartphone when you enter the vehicle. The Lexus app must be open and signed in, and Bluetooth® must be enabled on the smartphone. Once a profile is detected, the multimedia will display a message with the option to select “Settings.” Within the menu there is a list of “Detected profiles” to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to “Save profile” and continue. A banner will confirm that your profile has been successfully saved to the multimedia system. For more assistance with User Profile please visit our Connected Technology Support Tool or reference your Owner’s Manual. <i>The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Lexus is under license. A compatible Bluetooth enabled phone must first be paired. Phone performance depends on software, coverage and carrier.</i> The profile has a plurality of settings of the user for the vehicle, at least part of the plurality of settings for the profile being stored on storage accessible to the cloud services system. <i>See, e.g.:</i>

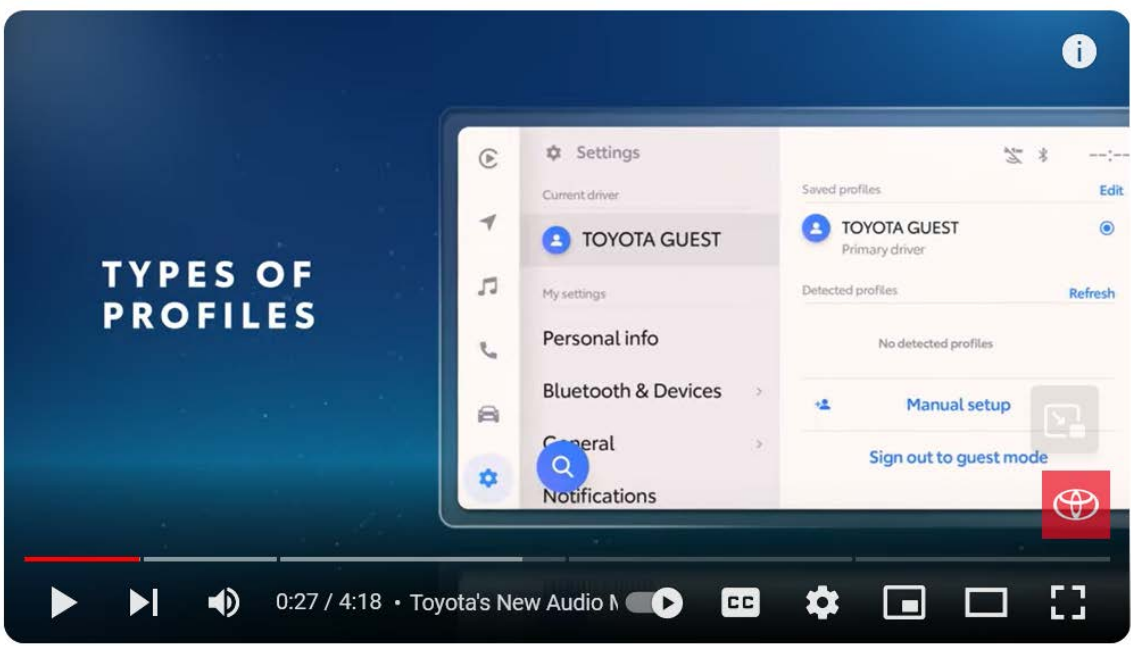
Claim 1	Toyota Accused Instrumentalities
	What is a Toyota User Profile? A User Profile allows you to have a personalized cloud-stored collection of select driver preferences & settings to enhance your Toyota driving experience. ...

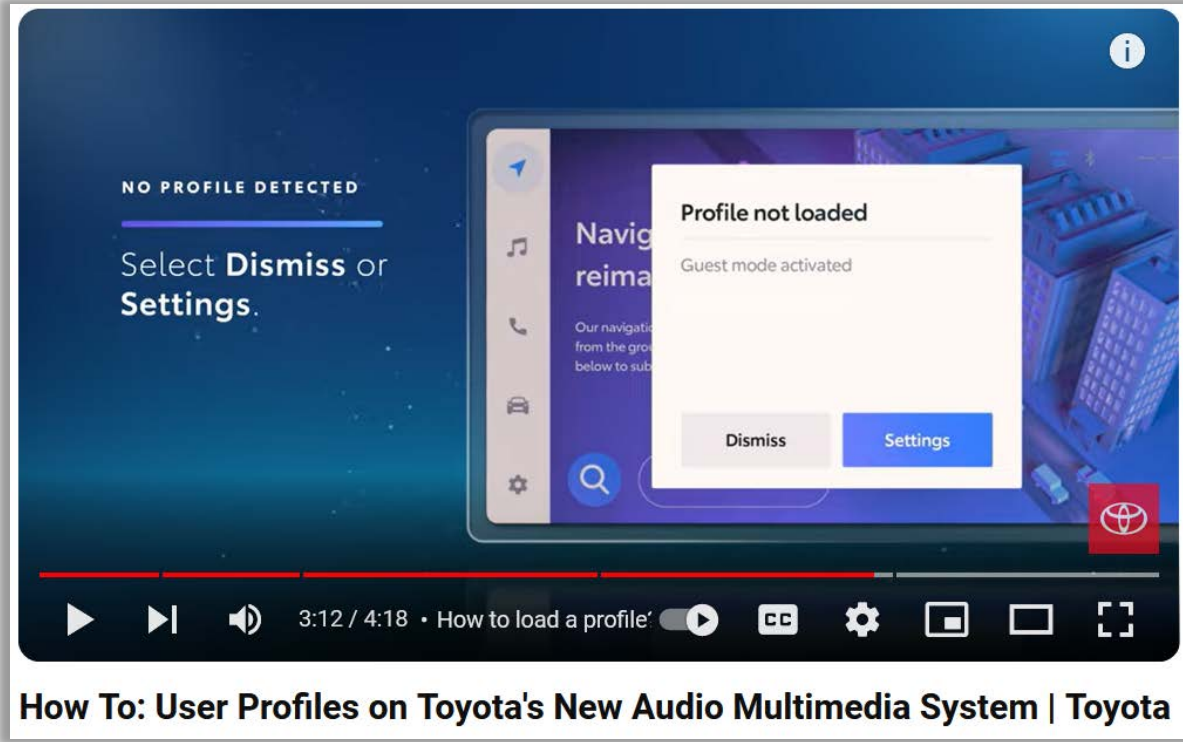
Claim 1	Toyota Accused Instrumentalities
	Examples of Cloud-Stored Personalized Settings: Audio Settings ▪ Radio Station Favorites ▪ Recently Played AM/FM Stations ▪ Treble/Bass/Mid Programming ▪ Music Streaming Preferences Cloud Navigation Settings ▪ Home & Work Addresses ▪ Recent Addresses ▪ Show/Hide Traffic ▪ Avoid Toll Roads ▪ Notification Preferences Vehicle Preferences ▪ Date & Time ▪ Language & Units ▪ Driver seat adjustments ▪ Heads up display settings

Claim 1	Toyota Accused Instrumentalities
	See Toyota, Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, at https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20User%20Profile%20/52cdcfa0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023. To the extent this claim element is corrected to require “and at least one of said plurality of settings being restricted for use on the vehicle, wherein” the Accused Instrumentalities would satisfy this requirement. As shown in the instructional video below, at least one of the above-described plurality of settings of the user for the vehicle is restricted for use on the vehicle because Toyota restricts user profile settings on the vehicle according to “types of profiles.” For example, Toyota restricts the settings available on the vehicle depending on the type of user profile activated. Toyota allows the primary driver to customize their User Profile to receive “vehicle health reports, manage services, and more,” whereas the additional two User Profiles for a vehicle cannot access these settings.

Claim 1	Toyota Accused Instrumentalities
	 See Toyota, Support, How To: User Profiles on Toyota’s New Audio Multimedia System, at https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20User%20Profile%20/fc9a2440-4959-11ec-99e3-59782dff31a1?model=bZ4X&year=2023; see also Lexus Connected Technology Support, Home, UX 250H, 2024, Support Topics, User Profile, What is a User Profile?, at https://lexusconnectedtechnologysupport.com/lexus/feature/User%20Profile/6bc07ec0-0929-11ed-a686-85aa58672a6c?model=UX%20250H&year=2024:

Claim 1	Toyota Accused Instrumentalities
	GUEST MODE & PROFILE MODE If the vehicle does not detect a profile, the Lexus Interface will not load any personalized preferences or settings. This is referred to as "Guest Mode." On selecting a detected/saved profile, the Lexus Interface will load the personalized preferences or settings of that profile. This is referred to as the "Profile Mode." The below Profile types can be saved to a vehicle: Primary Driver - The main driver or vehicle's owner is the Primary Driver. Additional Profile/s- a family member or a friend who wants to access their profile preferences/settings can create additional profiles. Upto two additional profiles can be saved.

Claim 1	Toyota Accused Instrumentalities
	 How To: User Profiles on Toyota's New Audio Multimedia System Toyota Toyota, How To: User Profiles on Toyota's New Audio Multimedia System, at https://www.youtube.com/watch?v=IBS6mlpArFQ&t=10s Additionally, at least one of the above-described plurality of settings of the user for the vehicle is restricted for use on the vehicle when “guest mode” is activated. As described below, when the vehicle is in “guest mode, there are no personalized preferences or settings for the vehicle.”

Claim 1	Toyota Accused Instrumentalities
	 The screenshot displays the Toyota Multimedia System interface. On the left, a dark blue screen shows the text 'NO PROFILE DETECTED' and 'Select Dismiss or Settings.' In the center, a white pop-up dialog box contains the text 'Profile not loaded' and 'Guest mode activated', with 'Dismiss' and 'Settings' buttons at the bottom. The background of the interface shows a navigation map and various icons like music, phone, and car settings. A red Toyota logo is visible in the bottom right corner of the interface. Below the interface, a video player control bar shows the video title 'How To: User Profiles on Toyota's New Audio Multimedia System Toyota' and a progress bar at 3:12 / 4:18. How To: User Profiles on Toyota's New Audio Multimedia System Toyota <i>Id.; see id.:</i>

Claim 1	Toyota Accused Instrumentalities
	The screenshot displays the Toyota Audio Multimedia System interface. On the left, a dark blue screen shows the text "SIGNING OUT OF PROFILES" and instructions: "Select [gear icon], then Sign out to guest mode." On the right, a white settings menu is open, showing a yellow notification at the top: "Guest mode activated" with the subtext "You will no longer have access to connected services." The settings menu includes options like "Guest", "My settings", "Personal info", "Bluetooth & Devices", "General", and "Notifications". Below the settings menu, a "TOYOTA GUEST" profile is listed as the "Primary driver". At the bottom of the screen, a video player interface is visible, showing a progress bar at 3:43 / 4:18 and various control icons. How To: User Profiles on Toyota's New Audio Multimedia System Toyota As shown above, and further described below, “guest mode” can be activated to restrict a driver’s access to any settings “in instances, such as valet, when you need to pass your vehicle off to someone else who you wish not to have access to your connected services, personalized preferences, and settings within the vehicle.”

Claim 1	Toyota Accused Instrumentalities
	What is Sign out or Guest mode? If a profile has been loaded for use on the multimedia system you can easily sign out of the profile. This then puts the multimedia in what is called Guest mode. Guest mode is often used in instances, such as valet, when you need to pass your vehicle off to someone else who you wish not to have access to your connected services, personalize preferences, and settings within the vehicle. To sign out into Guest mode, select "Settings" (gear icon), scroll down on the right side of the multimedia display and select "Sign out." You will be required to enter your profile PIN in the multimedia system to authenticate the profile. Once verified using your profile PIN, your selected profile will be loaded again for use. A welcome banner will confirm that your profile has been successfully loaded to the multimedia system." Toyota Support Home, What is Sign Out or Guest mode?, at https://support.toyota.com/s/article/What-is-Sign-out-or-Guest-mode?language=en_US

Claim 1	Toyota Accused Instrumentalities		
	<table> <tr> <td>[Sign out to guest mode]</td><td>Sign out of the current my settings to go to guest mode. This feature can be used for valet to protect personal information. Values of the my settings other than search history and personal settings will be carried over to the my setting of the guest.</td></tr> </table> Toyota 2023 Prius Prime Multimedia Owner's Manual at 50, at https://assets.sia.toyota.com/publications/en/omnav-s/OM47F28U/pdf/OM47F28U.pdf?_gl=1*1k0ptjn*_tmna_ga*MTk3ODYyMTk2LjE2OTQxOTM0MDY.*_tmna_ga_EP43E5EFVZ*MTY5NDQ0MTg2NC4zLjEuMTY5NDQ0OTgzNC41Ni4wLjA. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise	[Sign out to guest mode]	Sign out of the current my settings to go to guest mode. This feature can be used for valet to protect personal information. Values of the my settings other than search history and personal settings will be carried over to the my setting of the guest.
[Sign out to guest mode]	Sign out of the current my settings to go to guest mode. This feature can be used for valet to protect personal information. Values of the my settings other than search history and personal settings will be carried over to the my setting of the guest.		

Claim 1	Toyota Accused Instrumentalities
	modify these contentions in response to non-public documents, including source code, provided in this matter.
1[c] transferring, by the server, upon verifying the user information, one or more settings of the plurality of settings to [storage of] the vehicle, the transferring is configured to instruct software and/or hardware associated with said electronics of the vehicle to apply said one or more settings to the vehicle for customizing said vehicle to use said one or more settings associated with the profile,	See claim 1[pre], 1[a]-[b], above. The Accused Instrumentalities transfer, upon verifying the user information, one or more settings of the plurality of settings to [storage of] the vehicle. For example, Toyota’s server transfers one or more user profile settings to the vehicle after a user enters their profile PIN and the PIN is confirmed (or the user information is otherwise verified as discussed previously). See Toyota, Support Home, Can I still use my profile if I don’t want to save it to the vehicle?, at https://support.toyota.com/s/article/Can-I-still-use-my-profile-if-I-don-t-want-to-save-it-to-the-vehicle?language=en_US:

Claim 1	Toyota Accused Instrumentalities
	Can I still use my profile if I don't want to save it to the vehicle? Yes. Your profile may be detected and loaded for use within the multimedia system without saving it. Once the profile is detected, the multimedia will display a message with the option to select "Settings." Within the menu there is a list of "Detected profiles" to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to "Save profile." If you do not wish to save the profile to the multimedia system, simply select "Do not save" when prompted. The Profile will no longer appear on the multimedia system after ACC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle. For additional assistance with User Profile please visit our Audio & Connected Services Support Tool or reference your Owner's Manual. The transferring is configured to instruct software and/or hardware associated with said electronics of the vehicle to apply said one or more settings to the vehicle for customizing said vehicle to use said one or more settings associated with the profile. For example, Toyota transfers cloud-stored User Profile data from Toyota's server to the multimedia system of the User Profile-associated vehicle, using the vehicle's factory installed telematics system and factory-installed DCM to communicate with Toyota's server and apply one or more settings to the vehicle for customizing the vehicle to use those User Profile-associated settings. See Toyota Connected Services Terms of Use, Effective March 7, 2023, at 1-2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf; see also https://pressroom.toyota.com/toyotas-

Claim 1	Toyota Accused Instrumentalities
	new-in-house-intelligent-assistant-learns-voice-commands-and-gets-smarter-over-time/; and see https://www.youtube.com/watch?app=desktop&v=kiPysxvkmoU: The DCM is an embedded cellular device which enables wireless/GPS technology and allows Toyota to collect data from the user and the user's vehicle. <i>See id.</i> The telematics system uses digital wireless telecommunications technology and GPS technology to enable Toyota Connected Services and Toyota-installed software via third party wireless networks, satellites, and related infrastructure. <i>See id.</i> at 2, 8; and see Toyota, 2023 Highlander Owner's Manual, Audio & Multimedia, Connected Services, Connected Services overview, Types of functions, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.ibo1649038197243: Types of functions PREVIOUS SECTION < Functional overview The functions included are classified into the following types. - Type A: Function achieved by using DCM and the system - Type B: Function achieved by using DCM - Type C Function achieved by using DCM and a smartphone Function Type User Profile, Drive Connect, Wi-Fi Connect, OTA Type A Safety Connect Type B Remote Connect, Service Connect Type C NEXT SECTION Before using the function >

Claim 1	Toyota Accused Instrumentalities
	See also Toyota, 2023 Highlander Owner's Manual, Audio & Multimedia, Connected Services, Connected Services overview, Functional overview, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.fgi1649038197149: Type A: Function achieved by using DCM and the system PREVIOUS SECTION < Before using the function NEXT SECTION Type B: Function achieved by using DCM > The functionality of User Profile, Drive Connect (Cloud Navigation, Intelligent Assistant, Destination Assist), Wi-Fi Connect (Wi-Fi Hotspot, Integrated Streaming) is made possible through the shared work of the DCM and the system. These services are available by subscription on select, telematics hardware- equipped vehicles and supported by the Toyota, which operates 24 hours a day, 7 days a week. For details about: - User Profile: Registering a user profile - Intelligent Assistant: Using the Intelligent Assistant system - Cloud Navigation: Cloud navigation - Destination Assist: Destination Assist - Integrated Streaming: Playing Integrated Streaming - Wi-Fi Hotspot: Setting Wi-Fi Hotspot And see:

Claim 1	Toyota Accused Instrumentalities
	• User Profiles– To help improve the user’s overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. Toyota Newsroom, Innovation, Toyota Motor North America Introduces Next-Generation Multimedia System to Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.
1[d] wherein the vehicle uses wireless communication for exchanging data with the cloud services system	See claim 1[pre], 1[a]-[c], above. Toyota performs the method of claim 1, including wherein the vehicle uses wireless communication for exchanging data with the cloud services system and for receiving said one or more settings for the profile. Toyota makes and sells vehicles with factory installed multimedia system hardware and software, which includes an on-board DCM. The DCM enables wireless/GPS technology and allows for the collection of data from the user and the user’s vehicle, as well as communications between the vehicle and Toyota’s

Claim 1	Toyota Accused Instrumentalities
and for receiving said one or more settings for the profile.	cloud services system. By default, the DCM is on/active when the vehicle is delivered to the customer and will remain on/active and continue to collect data from the user and the user’s vehicle until the customer contacts Toyota and requests deactivation. <i>See, e.g.:</i> (i) the Connected Services Privacy Notice located at www.Toyota.com/privacyvts (“Privacy Notice”). Carefully review the Privacy Notice as it applies to your personal information and Vehicle (as defined below) data that we collect, use, store, share and secure to provide the Services. Please note that your Vehicle comes with a data communication module (“DCM”) that enables the Wireless/GPS Technology, as described in Section 11(a), and allows for the collection of data from you and your vehicle (e.g., location, health and driving data). BY DEFAULT, THE DCM IS ON/ACTIVE WHEN YOUR VEHICLE IS DELIVERED AND WILL REMAIN ON/ACTIVE (AND CONTINUE TO COLLECT DATA FROM YOU AND YOUR VEHICLE) UNTIL YOU CONTACT US AND REQUEST THAT IT BE DEACTIVATED. Toyota Connected Services Terms of Use, Effective March 7, 2023, at 1-2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf; <i>see id.</i> at 2: 2. SERVICE REQUIREMENTS; SERVICE PROVIDERS; LIMITATIONS; APP (a) To obtain Services: (i) your Vehicle must contain a factory installed telematics system (the “System”) – see Section 11(a) for more details; (ii) your Vehicle must include the software installed by or on behalf of Toyota with all updates made available to you by Toyota (whether such update installed by you, Toyota or a dealer) (collectively, the “Software”) – for more details, see the EULA referenced in Section 1(b) above; (iii) the DCM must be on/active and properly functioning; and (iv) you must have an active Service Plan as provided under Section 3(b) below.

Claim 1	Toyota Accused Instrumentalities
	The DCM and the telematics system use wireless telecommunication for exchanging data with the cloud service and for receiving User Profile settings. <i>See id.</i> at 2, 8; <i>and see</i> Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Types of functions, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.ibo1649038197243: The screenshot displays a webpage titled "Types of functions". On the left, there are navigation links: "PREVIOUS SECTION < Functional overview" and "NEXT SECTION Before using the function >". The main content area is headed "The functions included are classified into the following types." and lists three categories: Type A (achieved by using DCM and the system), Type B (achieved by using DCM), and Type C (achieved by using DCM and a smartphone). Under Type A, specific functions are listed: User Profile, Drive Connect, Wi-Fi Connect, and OTA. Under Type B, Safety Connect is listed. Under Type C, Remote Connect and Service Connect are listed. <i>See also</i> Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Functional overview, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.fgi1649038197149:

Claim 1	Toyota Accused Instrumentalities
	Type A: Function achieved by using DCM and the system PREVIOUS SECTION < Before using the function NEXT SECTION Type B: Function achieved by using DCM > The functionality of User Profile, Drive Connect (Cloud Navigation, Intelligent Assistant, Destination Assist), Wi-Fi Connect (Wi-Fi Hotspot, Integrated Streaming) is made possible through the shared work of the DCM and the system. These services are available by subscription on select, telematics hardware- equipped vehicles and supported by the Toyota, which operates 24 hours a day, 7 days a week. For details about: - User Profile: Registering a user profile - Intelligent Assistant: Using the Intelligent Assistant system - Cloud Navigation: Cloud navigation - Destination Assist: Destination Assist - Integrated Streaming: Playing Integrated Streaming - Wi-Fi Hotspot: Setting Wi-Fi Hotspot See also: HOW DOES THE LEXUS CONNECTED APP COMMUNICATE WITH THE VEHICLE? — The Lexus Connected app sends commands to the cloud server, which confirms the command and relays it the to the vehicle's DCM. If the app does not connect to the server, the Guest will receive in-app message of the non-connection.

Claim 1	Toyota Accused Instrumentalities
	Lexus, Connectivity, Multimedia FAQ, How Does the Lexus Connected App Communicate with the Vehicle?, at https://www.lexus.com.au/connectivity/apple-carplay-and-android-auto-support#MM. See also Lexus, Connectivity, Multimedia FAQ, What Hardware is Required for Lexus Multimedia Connect?, at https://www.lexus.com.au/connectivity/apple-carplay-and-android-auto-support: WHAT HARDWARE IS REQUIRED FOR LEXUS MULTIMEDIA CONNECT? A factory installed Data Communication Module (DCM) is required. ... WHAT IS A DCM AND HOW DO I KNOW IF MY VEHICLE IS COMPATIBLE? — A Data Communication Module (DCM) is a factory installed hardware component that acts as an embedded smartphone receiving and sending information to and from the vehicle. Lexus Connected Services are dependent upon the DCM. Lexus is launching Connected Services progressively across its model range. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics,

Claim 1	Toyota Accused Instrumentalities
	as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 2	Toyota Accused Instrumentalities
2. The method of claim 1, wherein the profile of the user is transferrable to one or more other vehicles from the cloud services system.	See claim 1, above. The profile of the user is transferrable to one or more other vehicles from the cloud services system. For example, Toyota’s User Profile functionality is a “personalized experience that moves from vehicle to vehicle with the driver[.]” See, e.g., Toyota Newsroom, Innovation, Toyota Motor North America Introduces Next-Generation Multimedia System to Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/: In the age of digital transformation in mobility, having a more personalized experience that moves from vehicle to vehicle with the driver is essential. Through the new multimedia system’s User Profile feature, the driver’s personalized settings and experience, from preferred media or radio station to climate settings in some models, will be retained and accessible when the driver next returns to the vehicle. Toyota’s User Profile system “is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system.” See <i>id.</i>:

Claim 2	Toyota Accused Instrumentalities
	• User Profiles– To help improve the user’s overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 4	Toyota Accused Instrumentalities
4. [Pre] The method of claim 1, further comprising,	See claim 1, above.
4[a] receiving, by the server, communication from the vehicle regarding inputs made to systems of the vehicle during use of the vehicle while the vehicle is associated with the profile of the user account;	The Accused Instrumentalities receive receives communication from the vehicle (e.g., the Toyota vehicle) regarding inputs made to systems of the vehicle during use of the vehicle while the vehicle is associated with the profile of the user account. As an example, the vehicle receives interface input data related to user data, including, for example, data related to a user's profile during use of the vehicle by a user while the vehicle is associated with the profile of the user account. Data related to a user's profile may include vehicle settings. The inputs are received by the Accused Instrumentalities to be saved in a user profile, and "are automatically saved to the current profile when they are changed."

Claim 4	Toyota Accused Instrumentalities
	User profiles Driving positions, multimedia settings, and other vehicle settings for each driver can be saved and the applicable driver can load them when driving the car. ● Up to three user profile can be registered. ● The following setting information can be saved in a profile: • Some multimedia settings : Volume and tone quality, navigation system, audio, etc. • Some vehicle settings : Driving position, air conditioning, meters, etc. ● Vehicle settings are automatically saved to the current profile when they are changed. Toyota 2023 bZ4X Multimedia Owner's Manual (OM42D77U), at 48, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf

Claim 4	Toyota Accused Instrumentalities
	How do I set up my vehicle to recognize my Primary User Profile when I enter it? Once a User Profile has been saved to the vehicle, there will be an option in the Toyota multimedia system settings to link or associate that profile with an 'Identification Device'. The saved Profile can be linked or associated via the following methods: - Driver Monitor Camera - Face identification - Smart Key / Key Fob - Bluetooth® Mobile Phone 1. Select 'Settings' 2. Select 'Personal info' 3. Select one of the preferred methods available and follow the on-screen instructions When a Digital Key is registered with the vehicle the User Profile is associated and allows your profile to be loaded automatically. No further setup required. https://support.toyota.com/s/article/How-do-I-set-up-my-ve-10883?language=en_US Toyota App User Profile Overview Note: Your User Profile is associated with your Digital Key and allows your profile to be loaded automatically. No further setup required.

Claim 4	Toyota Accused Instrumentalities
	<i>What are the key features of a User Profile?</i> Key features of a User Profile can be used and carried along with you within select model year 2022 and new vehicles: · Your radio and preset favorites · Your preferences such as display day/night mode, seat settings, language · Use your account PIN to easily sign in when your profile has been detected · You can quickly sign out to Guest mode when using services like Valet · Use various devices such as a smart key or your smartphone to sign into your profile automatically https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US As another example, the interface input data is received by the Accused Instrumentalities and examined to determine learned patterns, the learned patterns used to identify recommendations for settings of the vehicle during the use or future uses of the vehicle or other vehicles. As an example, the recommendations are provided to “[o]ffer[] a unique experience catered to the particular user by utilizing learned user data.” The Intelligent Assistant allows the customer with the following enhancements: - Enhanced Voice Recognition / Natural Language Understanding - Improved voice performance by utilizing both in-vehicle and cloud-based voice recognition. - Personalized experience - Offers a unique experience catered to the particular user by utilizing learned user data stored in the cloud. - Up-to-date information - Cloud content is constantly kept up-to-date in the Toyota server, so there is no need to visit dealer for a data update.

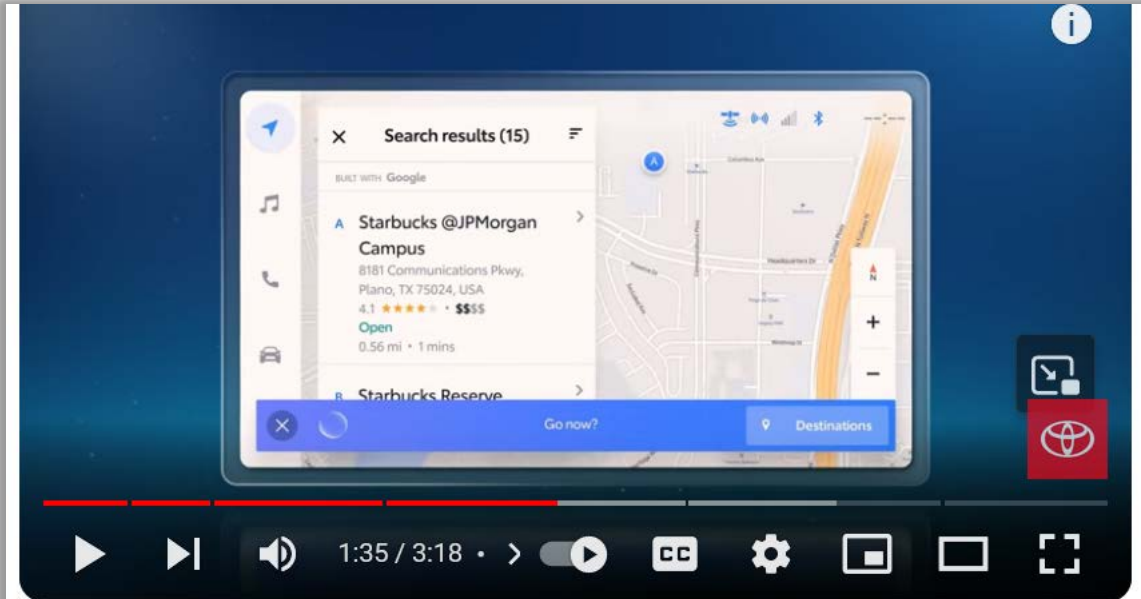
Claim 4	Toyota Accused Instrumentalities
	https://www.toyota.com/owners/warranty-owners-manuals/digital/article/highlander-hv/2023/om0e147u/oum1648203486842/ Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.
4[b] determining, by the server, based on the inputs made to systems of the vehicle that at least one of the plurality of settings of the profile is to be updated.	The Accused Instrumentalities determine, based on the inputs made to systems of the vehicle that at least one of the plurality of settings of the profile is to be updated. For example, settings of a user profile may include “vehicle settings,” and “[c]hanging the vehicle settings automatically updates the profile saved at the cloud[.]”

Claim 4	Toyota Accused Instrumentalities
	2-1. Multimedia system initial setup ● The driver who is registered as the owner can delete all drivers registered in the vehicle. Drivers who are not the vehicle owner cannot delete the owner's profile. ● The same profile cannot be used in another vehicle at the same time. ● Changing the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears. See Toyota 2023 bZ4X Multimedia Owner's Manual (OM42D77U), at 48-49, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf. "Cloud content is constantly kept up-to-date in the Toyota server[.]" See <i>id.</i> at 37:

Claim 4	Toyota Accused Instrumentalities
	The Intelligent Assistant allows the customer with the following enhancements: ● Enhanced Voice Recognition / Natural Language Understanding Improved voice performance by utilizing both in-vehicle and cloud-based voice recognition. ● Personalized experience Offers a unique experience catered to the particular user by utilizing learned user data stored in the cloud. ● Up-to-date information Cloud content is constantly kept up-to-date in the Toyota server, so there is no need to visit dealer for a data update. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 5	Toyota Accused Instrumentalities
5. The method of claim 4, further comprising, processing by a learning engine that uses the inputs made to the systems of the vehicle to find patterns in use of the systems of the vehicle while the profile was used with the vehicle.	See claim 4, above. Toyota performs the method of claim 4, further comprising processing by a learning engine that uses the inputs made to the systems of the vehicle to find patterns in use of the systems of the vehicle while the profile was used with the vehicle. As an example, when a user pushes the talk button in the vehicle, Toyota’s Intelligent Assistant “transcribes that speech to text both in the vehicle’s embedded computer and over the cloud,” and “Toyota Connected’s machine learning models in the cloud” process the transcribed commands and use the inputs made to the systems of the vehicle to find patterns in use of the systems of the vehicle while the profile was used with the vehicle. The transcribed command text is then processed by Toyota Connected’s machine learning models in the cloud – what is the intent of the words being used, from audio commands to windshield wipers or even finding a five-star-rated burger restaurant nearby. From there, it’s fed back to the vehicle where notes are compared between the embedded and cloud voice assistants to ensure the car is most accurately executing the command the user actually wants. “This is where the Toyota Connected magic comes in,” Oehler said.

Claim 5	Toyota Accused Instrumentalities
	First up, the computer determines top-line intent – temperature, audio, navigation, etc. Then comes sub-intent – specific temperature, a song or that ice cream shop that always seems to hit the spot. If it’s a music request for a new J-Pop song, and you’re already listening to your favorite streaming platform, the head unit will attempt to find the song on that platform. If it’s not there, it will switch to the next best option, such as satellite radio. The system is constantly getting smarter, looking at accuracy and tweaking commands to add more ways to ask for specific functions. The new infotainment technologies that have brought forth the Intelligent Assistant made their way to the Lexus NX, LX, and Toyota Tundra for 2022 but are already being introduced in more models for 2023 in North America. As it proliferates to more models, the speed of the machine learning system’s ability to, well, learn will only accelerate. See Toyota Newsroom, Toyota’s New In-House Intelligent Assistant Learns Voice Commands and Gets Smarter Over Time, at https://pressroom.toyota.com/toyotas-new-in-house-intelligent-assistant-learns-voice-commands-and-gets-smarter-over-time/ As another example, Toyota’s Intelligent Assistant relies on machine learning artificial intelligence to process commands using the inputs made to the systems of the vehicle, such as navigation and music inputs, to find patterns in use of the systems of the vehicle and deliver “a smart, personalized experience” for the user. As instructed in the video below, Toyota’s “Intelligent Assistant goes a step further than Toyota’s standard voice assistant feature by relying on machine learning AI for a smart, personalized experience. ...For example,

Claim 5	Toyota Accused Instrumentalities
	Intelligent Assistant works great with cloud navigation. ...Intelligent Assistant can also be used for music. ...If you're curious about what's playing, just ask 'what track is playing?' And if it's a song you love, you can say, 'play more music like this.' ”  The screenshot shows a Toyota infotainment screen. The top half displays a Google search interface with results for 'Starbucks @JPMorgan Campus' and 'Starbucks Reserve'. The bottom half of the screen shows a video player interface with a red progress bar, play/pause buttons, and a volume icon. The video title is 'How To: Intelligent Assistant on Toyota's New Audio Multimedia System Toyota'. https://www.youtube.com/watch?app=desktop&v=kiPysxvkmoU Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of

Claim 5	Toyota Accused Instrumentalities
	Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 6	Toyota Accused Instrumentalities
6. The method of claim 5, further comprising, sending, by the server, a recommended setting to the user account, the recommended setting is based on processing by the learning engine and said recommended setting is applied to the vehicle when the vehicle is used with the profile or is applied to the vehicle upon receiving acceptance of the recommended setting via the user account.	See claim 5, above. The Accused Instrumentalities send a recommended setting to the user account, the recommended setting is based on processing by the learning engine and said recommended setting is applied to the vehicle when the vehicle is used with the profile or is applied to the vehicle upon receiving acceptance of the recommended setting via the user account. As an example, Toyota’s cloud server sends a recommended setting to the user account where the recommended setting is based on processing by Toyota Connected’s machine learning models and the recommended setting is applied to the vehicle when the vehicle is used with the profile. The transcribed command text is then processed by Toyota Connected’s machine learning models in the cloud – what is the intent of the words being used, from audio commands to windshield wipers or even finding a five-star-rated burger restaurant nearby. From there, it’s fed back to the vehicle where notes are compared between the embedded and cloud voice assistants to ensure the car is most accurately executing the command the user actually wants. “This is where the Toyota Connected magic comes in,” Oehler said.

Claim 6	Toyota Accused Instrumentalities
	First up, the computer determines top-line intent – temperature, audio, navigation, etc. Then comes sub-intent – specific temperature, a song or that ice cream shop that always seems to hit the spot. If it’s a music request for a new J-Pop song, and you’re already listening to your favorite streaming platform, the head unit will attempt to find the song on that platform. If it’s not there, it will switch to the next best option, such as satellite radio. The system is constantly getting smarter, looking at accuracy and tweaking commands to add more ways to ask for specific functions. The new infotainment technologies that have brought forth the Intelligent Assistant made their way to the Lexus NX, LX, and Toyota Tundra for 2022 but are already being introduced in more models for 2023 in North America. As it proliferates to more models, the speed of the machine learning system’s ability to, well, learn will only accelerate. https://pressroom.toyota.com/toyotas-new-in-house-intelligent-assistant-learns-voice-commands-and-gets-smarter-over-time/; <i>see also</i> https://www.youtube.com/watch?app=desktop&v=kiPysxvkmoU Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves

Claim 6	Toyota Accused Instrumentalities
	the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 7	Toyota Accused Instrumentalities
7. The method of claim 5, wherein the patterns are correlated to one or more conditions, the one or more conditions include type of input, or time of day inputs, or temperature, or security, or number of occupants in the vehicle, or weather, or age of the vehicle, or service requirements of the vehicle.	See claim 5, above. The patterns are correlated to one or more conditions, the one or more conditions include type of input, or time of day inputs, or temperature, or security, or number of occupants in the vehicle, or weather, or age of the vehicle, or service requirements of the vehicle. As an example, Toyota provides an Intelligent Assistant feature which sends “notifications [] to the vehicle based on user preferences and vehicle geolocation[,]” and Toyota offers “[e]nhancements and learned behavior capabilities [that] are available real-time via cloud-base services.” A Drive Connect subscription is required to have the Intelligent Assistant feature. It enhances the standard Assistant which comes readily available on select model year 2022 or newer vehicles. The Intelligent Assistant offers additional capabilities such as, notifications sent to the vehicle based on user preferences and vehicle geolocation. Enhancements and learned behavior capabilities are available real-time via cloud-base services. Intelligent Assistant also offers expanded voice commands throughout Cloud Navigation, Phone and Vehicle settings. https://support.toyota.com/s/article/What-is-the-differenc-10740?language=en_US As another example, Toyota Connected’s machine learning models in the cloud process inputs made to the systems of the vehicle to find patterns in use of the systems of the vehicle, wherein the patterns are correlated to one or more conditions, such as types of input or temperature.

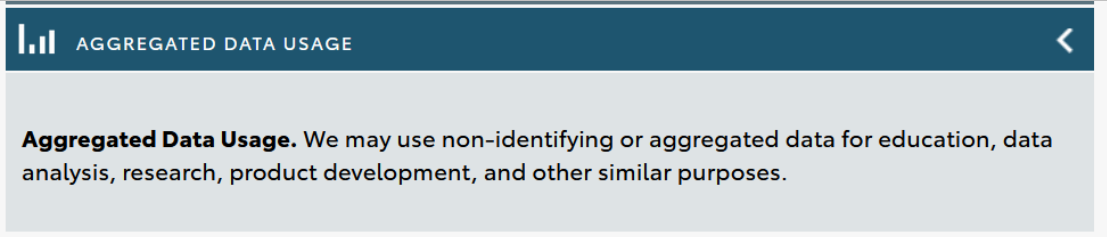
Claim 7	Toyota Accused Instrumentalities
	The transcribed command text is then processed by Toyota Connected's machine learning models in the cloud – what is the intent of the words being used, from audio commands to windshield wipers or even finding a five-star-rated burger restaurant nearby. From there, it's fed back to the vehicle where notes are compared between the embedded and cloud voice assistants to ensure the car is most accurately executing the command the user actually wants. "This is where the Toyota Connected magic comes in," Oehler said.

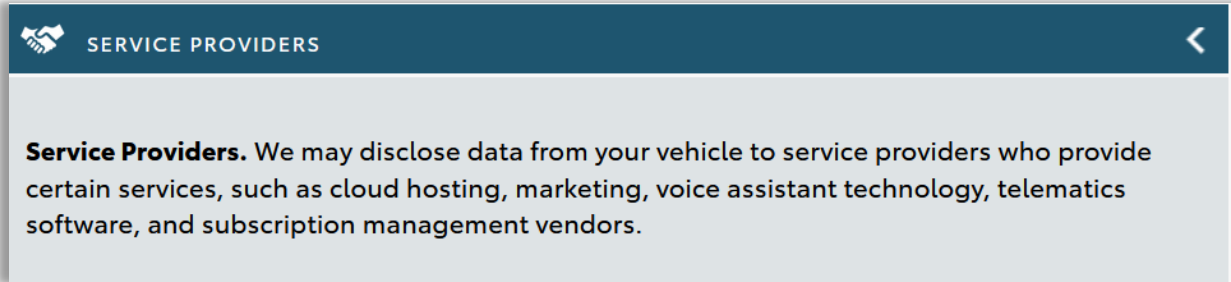
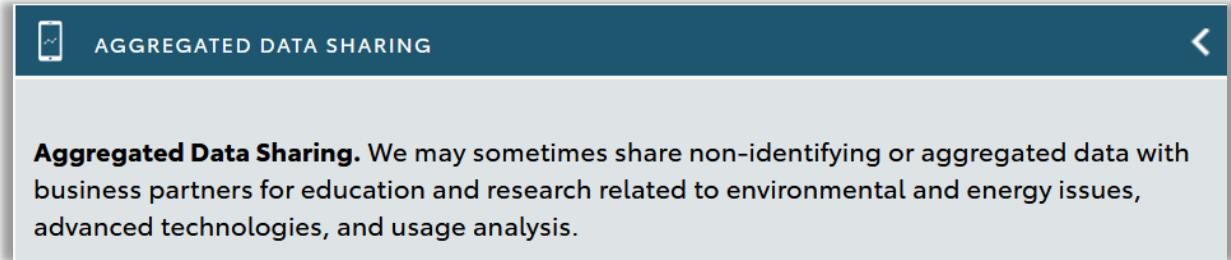
Claim 7	Toyota Accused Instrumentalities
	First up, the computer determines top-line intent – temperature, audio, navigation, etc. Then comes sub-intent – specific temperature, a song or that ice cream shop that always seems to hit the spot. If it’s a music request for a new J-Pop song, and you’re already listening to your favorite streaming platform, the head unit will attempt to find the song on that platform. If it’s not there, it will switch to the next best option, such as satellite radio. The system is constantly getting smarter, looking at accuracy and tweaking commands to add more ways to ask for specific functions. The new infotainment technologies that have brought forth the Intelligent Assistant made their way to the Lexus NX, LX, and Toyota Tundra for 2022 but are already being introduced in more models for 2023 in North America. As it proliferates to more models, the speed of the machine learning system’s ability to, well, learn will only accelerate. https://pressroom.toyota.com/toyotas-new-in-house-intelligent-assistant-learns-voice-commands-and-gets-smarter-over-time/; <i>see also</i> https://www.youtube.com/watch?app=desktop&v=kiPysxvkmoU Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves

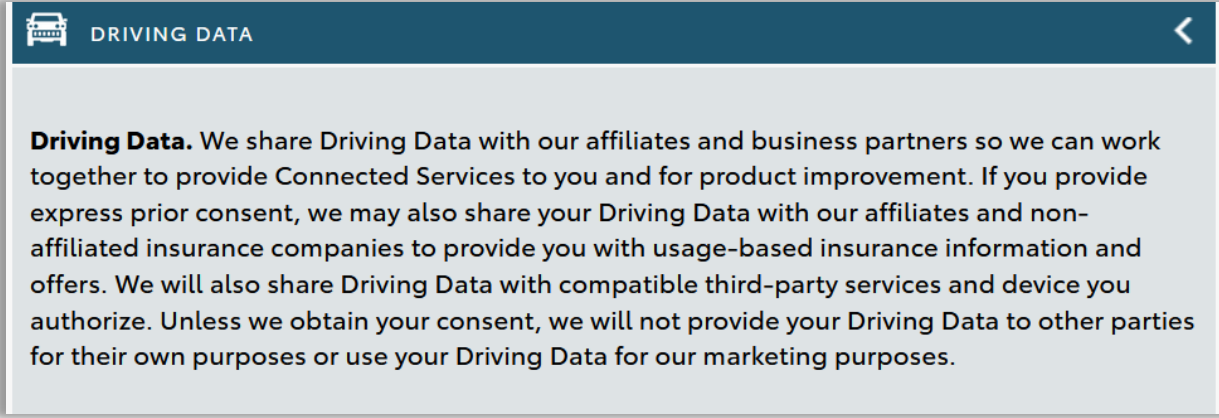
Claim 7	Toyota Accused Instrumentalities
	the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 8	Toyota Accused Instrumentalities
8[pre] 8. The method of claim 1, further comprising:	See claim 1, above. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.
8[a] accessing, by the server, a plurality of profiles of different users stored in the storage accessible to the cloud services system;	The Accused Instrumentalities access a plurality of profiles of different users stored in the storage accessible to the cloud services system. Toyota’s server accesses data from a plurality of profiles of different users to “build machine learning models” and “enable AI-driven enhancements.” Toyota Newsroom, Home/Innovation/Mobility, Toyota and Generative AI: It’s Here, and This is How We’re Using It (September 6, 2023), at https://pressroom.toyota.com/toyota-and-generative-ai-its-here-and-this-is-how-were-using-it/ As shown below, for example, “[o]n a regular and continuous basis,” Toyota collects and stores users’ “in-vehicle preferences (i.e., your linked Apple Music or Amazon Music account), favorites (i.e., your saved locations on maps or your preset radio stations), and usage history (i.e., your search and routing history on maps).” Toyota also collects and uses “Multimedia Screen Data (how you interact with your screen) for quality confirmation, data analysis, research and to improve functionalities and product offerings.” Toyota also uses “non-identifying or aggregated data for education, data analysis, research, product development, and other similar purposes.” On A Regular And Continuous Basis, We Or Your Vehicle Collect And Use The Following Data:

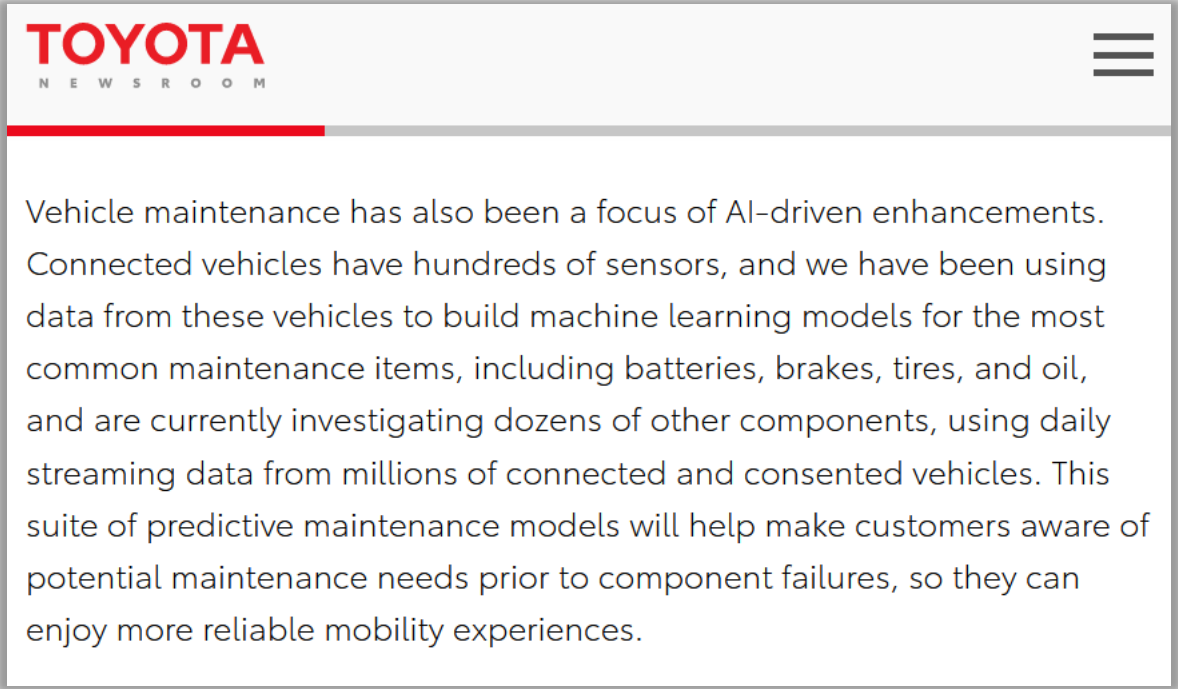
Claim 8	Toyota Accused Instrumentalities
	 Profile Data. If your vehicle is equipped with the ability to create and save user profiles, we may collect your in-vehicle preferences (i.e., your linked Apple Music or Amazon Music account), favorites (i.e., your saved locations on maps or your preset radio stations), and usage history (i.e., your search and routing history on maps). This information is used to deliver Connected Services tailored to your profile. ...

Claim 8	Toyota Accused Instrumentalities
	 Multimedia Screen Data. We may collect and use Multimedia Screen Data (how you interact with your screen) for quality confirmation, data analysis, research and to improve functionality and product offerings. ...  Aggregated Data Usage. We may use non-identifying or aggregated data for education, data analysis, research, product development, and other similar purposes. Toyota, Privacy Notice, Connected Services (2024), at https://www.toyota.com/privacyvts/ For example, Toyota accesses users’ data to “disclose data from your vehicle to service providers who provide certain services, such as cloud hosting, marketing, voice assistant technology,

Claim 8	Toyota Accused Instrumentalities
	telematics software, and subscription management vendors.” Also, as shown below, Toyota also accesses users’ data to “share non-identifying or aggregated data with business partners for education and research related to environmental and energy issues, advanced technologies, and usage analysis.”  ...  ...

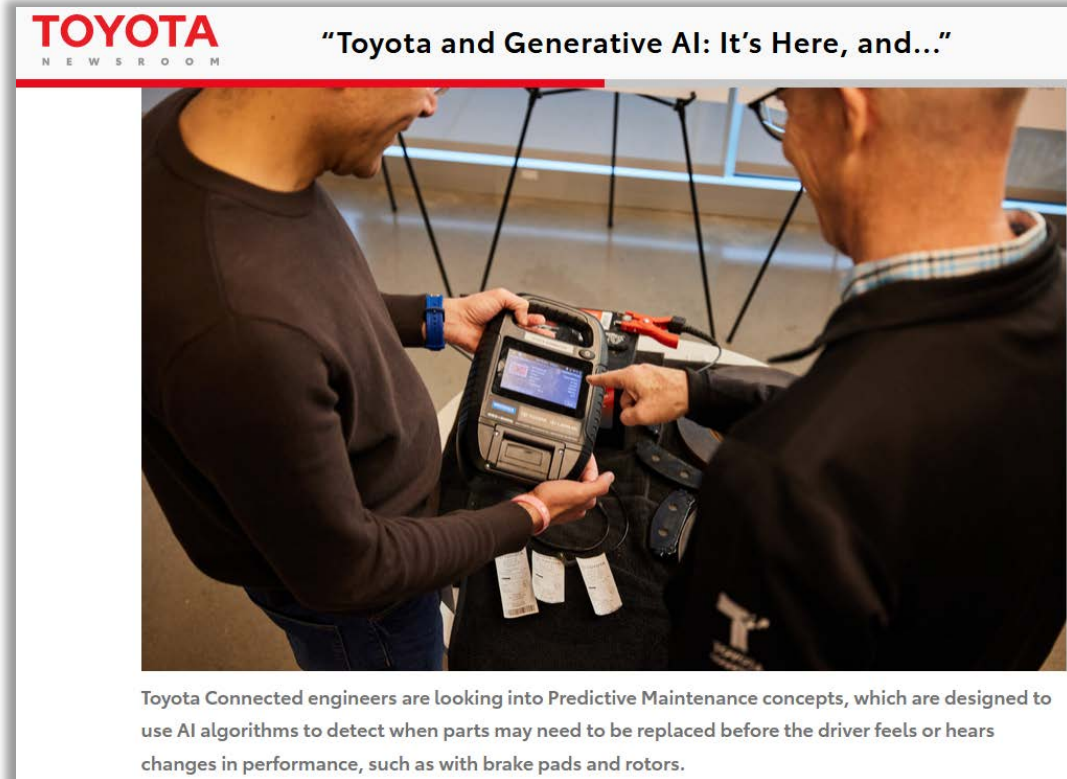
Claim 8	Toyota Accused Instrumentalities
	 Toyota, Privacy Notice, Connected Services (2024), at https://www.toyota.com/privacyvts/ Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.
8[b] detecting, by the server, similarities in patterns for inputs made to systems of vehicles associated with the profiles of different users;	See claim 8[a], above. The Accused Instrumentalities detect similarities in patterns for inputs made to the systems of vehicles associated with the profiles of different users. As shown below, for example, Toyota’s server detects similarities in patterns for inputs made to the multimedia systems of vehicles associated with the profiles of different users – “using daily

Claim 8	Toyota Accused Instrumentalities
	streaming data from millions of connected and consented vehicles” – for trend analysis, product development, to build machine learning models, to provide AI-drive vehicle maintenance and other AI-driven enhancements. How does Toyota use the data Service Connect collects? The data is used for quality confirmation, trend analysis and product development. The data is also used to send you Vehicle Health Report and Alert Notifications. View our Privacy Policy for more information. Toyota, Support Home, How does Toyota use the data Service Connect collects?, at https://support.toyota.com/s/article/How-does-Toyota-use-t-10231?language=en_US In parallel and through ingenuity, TCNA engineers built proofs of concept to see how they could enable AI-driven services as well. As such, the “Hey Toyota” and “Hey Lexus” Virtual Agents were born to support voice interactions in the vehicle. Launched in 2021, vehicles with the latest Toyota Audio Multimedia or Lexus Interface multimedia system have been using AI via Virtual Agent voice commands for audio, climate control, and other functions – even the ability to tell you a joke if you’re needing a pick-me-up. ...

Claim 8	Toyota Accused Instrumentalities
	 The screenshot shows the Toyota Newsroom website. At the top left is the 'TOYOTA NEWSROOM' logo in red and black. At the top right is a hamburger menu icon. Below the header is a red horizontal line. The main content area contains a paragraph of text about AI-driven enhancements in vehicle maintenance. Below the screenshot, there is a caption providing the source of the information. Vehicle maintenance has also been a focus of AI-driven enhancements. Connected vehicles have hundreds of sensors, and we have been using data from these vehicles to build machine learning models for the most common maintenance items, including batteries, brakes, tires, and oil, and are currently investigating dozens of other components, using daily streaming data from millions of connected and consented vehicles. This suite of predictive maintenance models will help make customers aware of potential maintenance needs prior to component failures, so they can enjoy more reliable mobility experiences. Toyota Newsroom, Home/Innovation/Mobility, Toyota and Generative AI: It's Here, and This is How We're Using It (September 6, 2023), at https://pressroom.toyota.com/toyota-and-generative-ai-its-here-and-this-is-how-were-using-it/

Claim 8

Toyota Accused Instrumentalities



Id.

As shown below, Toyota Connected's machine learning models in the cloud detect similarities in patterns for inputs made to systems of vehicles associated with the profiles of different users, such that Toyota's "system is constantly getting smarter, looking at accuracy and tweaking commands to add more ways to ask for specific functions. ...As it proliferates to more models the speed of the machine learning system's ability to, well, learn will only accelerate."

Claim 8	Toyota Accused Instrumentalities
	The transcribed command text is then processed by Toyota Connected's machine learning models in the cloud – what is the intent of the words being used, from audio commands to windshield wipers or even finding a five-star-rated burger restaurant nearby. From there, it's fed back to the vehicle where notes are compared between the embedded and cloud voice assistants to ensure the car is most accurately executing the command the user actually wants. "This is where the Toyota Connected magic comes in," Oehler said.

Claim 8	Toyota Accused Instrumentalities
	First up, the computer determines top-line intent – temperature, audio, navigation, etc. Then comes sub-intent – specific temperature, a song or that ice cream shop that always seems to hit the spot. If it’s a music request for a new J-Pop song, and you’re already listening to your favorite streaming platform, the head unit will attempt to find the song on that platform. If it’s not there, it will switch to the next best option, such as satellite radio. The system is constantly getting smarter, looking at accuracy and tweaking commands to add more ways to ask for specific functions. The new infotainment technologies that have brought forth the Intelligent Assistant made their way to the Lexus NX, LX, and Toyota Tundra for 2022 but are already being introduced in more models for 2023 in North America. As it proliferates to more models, the speed of the machine learning system’s ability to, well, learn will only accelerate. https://pressroom.toyota.com/toyotas-new-in-house-intelligent-assistant-learns-voice-commands-and-gets-smarter-over-time/; <i>see also</i> https://www.youtube.com/watch?app=desktop&v=kiPysxvkmoU Toyota’s Intelligent Assistant “utilize[es] learned user data stored in the cloud” and “cloud content is constantly kept up-to-date in the Toyota server,” and “changing some multimedia settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears.”

Claim 8	Toyota Accused Instrumentalities
	The Intelligent Assistant allows the customer with the following enhancements: ● Enhanced Voice Recognition / Natural Language Understanding Improved voice performance by utilizing both in-vehicle and cloud-based voice recognition. ● Personalized experience Offers a unique experience catered to the particular user by utilizing learned user data stored in the cloud. ● Up-to-date information Cloud content is constantly kept up-to-date in the Toyota server, so there is no need to visit dealer for a data update. Toyota, Mirai 2023 Multimedia Owner's Manual, at 50-51, at https://assets.sia.toyota.com/publications/en/omnav-s/OM62112U/pdf/OM62112U.pdf Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 8	Toyota Accused Instrumentalities
8[c] using, by the server, a learning engine to produce a recommended setting that is sent to the user account.	See claim 8[a]-8[b], above. The Accused Instrumentalities use a learning engine to produce a recommended setting that is sent to the user account. As shown below, for example, Toyota’s server uses a learning engine to produce a recommended setting, such specific temperature or audio settings, that is sent to the user account. First up, the computer determines top-line intent – temperature, audio, navigation, etc. Then comes sub-intent – specific temperature, a song or that ice cream shop that always seems to hit the spot. If it’s a music request for a new J-Pop song, and you’re already listening to your favorite streaming platform, the head unit will attempt to find the song on that platform. If it’s not there, it will switch to the next best option, such as satellite radio. The system is constantly getting smarter, looking at accuracy and tweaking commands to add more ways to ask for specific functions. The new infotainment technologies that have brought forth the Intelligent Assistant made their way to the Lexus NX, LX, and Toyota Tundra for 2022 but are already being introduced in more models for 2023 in North America. As it proliferates to more models, the speed of the machine learning system’s ability to, well, learn will only accelerate.

Claim 8	Toyota Accused Instrumentalities
	Toyota Pressroom, Toyota's New In-House Intelligent Assistant Learns Voice Commands and Gets Smarter Over Time (June 6, 2022), at https://pressroom.toyota.com/toyotas-new-in-house-intelligent-assistant-learns-voice-commands-and-gets-smarter-over-time/; <i>see also</i> Toyota Newsroom, Home/Innovation/Mobility, Toyota and Generative AI: It's Here, and This is How We're Using It (September 6, 2023), at https://pressroom.toyota.com/toyota-and-generative-ai-its-here-and-this-is-how-were-using-it/ Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 9	Toyota Accused Instrumentalities
9. The method of claim 1, wherein the request is automatically generated by the electronics of the vehicle upon detecting a pairing with a user device of the user, or input of credentials of the user for the user account.	See claim 1, above. The request is automatically generated by the electronics of the vehicle upon detecting a pairing with a user device of the user, or input of credentials of the user for the user account. As described above, Toyota's connected vehicles, embedded with a DCM and telematics system, automatically detect Toyota User Profiles of Toyota app users in the vehicle's vicinity. HOME / SUPPORT TOPICS / TOYOTA APP Your Toyota User Profile should now be displayed under "Detected Profiles." To load your profile, select your "name." The User Profile name matches the first and last name you entered when registering for the Toyota App. Note: Multiple Toyota User Profiles may be detected by the Audio Multimedia system if there are other Toyota app users in the vehicle's vicinity. Make sure to choose the correct profile name you wish to load. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at

Claim 9	Toyota Accused Instrumentalities
	https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20App/af779a10-bbf7-11ec-9c26-bda36a4d479f?model=&year=null. What is a User Profile? A User Profile is created when you register an account within the Toyota app. Used on select model year 2022 & newer vehicles, User Profile allows for you & other drivers of the vehicle to customize their driving experience. Personalized settings and preferences stored in your profile are accessed when the vehicle recognizes the profile using any one of the identification devices supported. Conveniently save a total of three (3) User profiles to a vehicle, one (1) Primary Driver & two (2) additional User Profiles. Each is tailored to their individual preferences and settings. The multimedia system in the vehicle first detects your profile when your Toyota app is open and signed in, and Bluetooth® is enabled on your smartphone. Once your profile is saved to the vehicle's multimedia system it can be linked to your mobile phone or smart key fob so it is detected automatically when you enter the vehicle. For additional assistance with User Profile, please visit our Audio & Connected Services Support Tool or reference your Owner's Manual. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US. Upon detecting a pairing with a User Profile-associated identification device, such as a smartphone, the vehicle's multimedia system will display a message with the option to select "settings," and within the menu there is a list of "detected profiles" from which a user can select the desired profile for the driver. To load a desired user profile to a vehicle's multimedia system, Toyota's server

Claim 9	Toyota Accused Instrumentalities
	receives a request from the vehicle to access the desired profile, and the request identifies user information related to the user. For example, the user can opt to save user profile data to a cloud server, as opposed to the cloud and the vehicle's multimedia system. Once the vehicle's electronics automatically generates a request to the server, upon detecting available Toyota User Profiles in the vehicle's vicinity, the user can select the desired profile and input user credential for the user account, such as a profile PIN, to validate the profile. See Toyota, Support Home, Can I still use my profile if I don't want to save it to the vehicle?, at https://support.toyota.com/s/article/Can-I-still-use-my-profile-if-I-don-t-want-to-save-it-to-the-vehicle?language=en_US: Can I still use my profile if I don't want to save it to the vehicle? Yes. Your profile may be detected and loaded for use within the multimedia system without saving it. Once the profile is detected, the multimedia will display a message with the option to select "Settings." Within the menu there is a list of "Detected profiles" to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to "Save profile." If you do not wish to save the profile to the multimedia system, simply select "Do not save" when prompted. The Profile will no longer appear on the multimedia system after ACC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle. For additional assistance with User Profile please visit our Audio & Connected Services Support Tool or reference your Owner's Manual. <i>See also:</i>

Claim 9	Toyota Accused Instrumentalities
	<i>What are the key features of a User Profile?</i> Key features of a User Profile can be used and carried along with you within select model year 2022 and new vehicles: · Your radio and preset favorites · Your preferences such as display day/night mode, seat settings, language · Use your account PIN to easily sign in when your profile has been detected · You can quickly sign out to Guest mode when using services like Valet · Use various devices such as a smart key or your smartphone to sign into your profile automatically Toyota, Toyota Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 10	Toyota Accused Instrumentalities
10. The method of claim 1, wherein the profile is configured for application in other vehicles.	See claim 1, above. The profile is configured for application in other vehicles. For example, Toyota’s User Profile functionality “can be used and carried with [the user] within select model year 2022 and new vehicles”: <i>What are the key features of a User Profile?</i> Key features of a User Profile can be used and carried along with you within select model year 2022 and new vehicles: · Your radio and preset favorites · Your preferences such as display day/night mode, seat settings, language · Use your account PIN to easily sign in when your profile has been detected · You can quickly sign out to Guest mode when using services like Valet · Use various devices such as a smart key or your smartphone to sign into your profile automatically See Toyota, Toyota Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US. Toyota’s User Profile functionality is a “personalized experience” that is configured to “move[] from vehicle to vehicle with the driver[.]” See, e.g., Toyota Newsroom, Innovation, Toyota Motor North America Introduces Next-Generation Multimedia System to Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/:

Claim 10	Toyota Accused Instrumentalities
	In the age of digital transformation in mobility, having a more personalized experience that moves from vehicle to vehicle with the driver is essential. Through the new multimedia system's User Profile feature, the driver's personalized settings and experience, from preferred media or radio station to climate settings in some models, will be retained and accessible when the driver next returns to the vehicle. Toyota's User Profile system "is stored on the cloud," and configured to allow "users [to] access and take their experiences on the go with them across vehicles featuring the new multimedia system." <i>See id.</i>: • User Profiles– To help improve the user's overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these

Claim 10	Toyota Accused Instrumentalities
	contentions in response to non-public documents, including source code, provided in this matter.

Claim 11	Toyota Accused Instrumentalities
11. The method of claim 1, wherein the profile is activated on the vehicle when the user information, including biometrics data, is activated [verified].	See claim 1, above. The profile is activated on the vehicle when the user information, including biometrics data, is activated and/or verified. For example, the Toyota User Profile is activated on the vehicle when the user information, including facial geometric features, is activated and/or verified. Toyota’s Face Identification feature can use the user’s “facial geometric features and profile data to verify [the user’s] identity and load [the user’s] saved user profile on the vehicle.” • Face Identification. Certain vehicles equipped with an interior, driver-facing camera use sensor and/or image data from the vehicle’s interior to scan your face when you open the vehicle’s door. If you opt-in and link your user profile using the in-vehicle “Setup Face” process, the Face Identification feature may use your Facial Geometric Features and Profile Data to verify your identity and load your saved user profile on the vehicle. Your Facial Geometric Features will only be stored on your vehicle. See Toyota Privacy Notice, Connected Services, Intro, at https://www.toyota.com/privacyvts/. Toyota’s “Face Identification service takes and stores a facial scan which is then linked to the driver’s profile in the vehicle in order to load the driver’s settings in the vehicle”:

Claim 11	Toyota Accused Instrumentalities
	(f) Facial Recognition System Service. Certain vehicles are equipped with Facial Identification services that are enabled through the use of interior cameras and other technology in the vehicle. The Face Identification service takes and stores a facial scan which is then linked to the driver's profile in the vehicle in order to load the driver's settings in the vehicle. These services may not operate correctly in certain instances, including if the driver's eyes, eyebrows, eyewear, masks, or other features, items, or conditions (e.g., sunlight) obstruct or interfere with the interior camera's ability to take a facial scan or identify the driver. Further, you should note that the services can result in misidentification from time-to-time, particularly with twins or others who share similar facial features. The Face Identification service is for driver convenience only and should not be relied upon for any other purpose, such as theft prevention. See Toyota Privacy Notice, Agreement, Terms of Use, at https://www.toyota.com/privacyvts/. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 14	Toyota Accused Instrumentalities
14. The method of claim 1, wherein the plurality of settings include one or more of tracking settings, or use metrics settings, or comfort settings, or entertainment settings, or driving mode settings, or refuel routing settings, or purchase settings, or combinations of two or more thereof.	See claim 1, above. The plurality of settings include one or more tracking settings, or use metrics settings, or comfort settings, or driving mode settings, or refuel routing settings, or purchase settings, or combinations of two or more thereof. For example, the plurality of user profile defined settings include comfort settings such driver seat adjustments, and entertainment settings such as radio station preferences and music streaming preferences. <i>See, e.g.:</i> What is a Toyota User Profile? A User Profile allows you to have a personalized cloud-stored collection of select driver preferences & settings to enhance your Toyota driving experience. ...

Claim 14	Toyota Accused Instrumentalities
	Examples of Cloud-Stored Personalized Settings: Audio Settings ▪ Radio Station Favorites ▪ Recently Played AM/FM Stations ▪ Treble/Bass/Mid Programming ▪ Music Streaming Preferences Cloud Navigation Settings ▪ Home & Work Addresses ▪ Recent Addresses ▪ Show/Hide Traffic ▪ Avoid Toll Roads ▪ Notification Preferences Vehicle Preferences ▪ Date & Time ▪ Language & Units ▪ Driver seat adjustments ▪ Heads up display settings See Toyota, Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%2052cdcfa0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023.

Claim 14	Toyota Accused Instrumentalities
	Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 15	Toyota Accused Instrumentalities
15. The method of claim 1, wherein the profile stored in the storage is accessible via a device using a connection to the Internet and/or a vehicle interface of the vehicle, and the device is one of a portable device, or a computer.	See claim 1, above. The profile stored in the storage is accessible via a device using a connection to the Internet and/or a vehicle interface of the vehicle, and the device is one of a portable device, or a computer. For example, Toyota stores User Profile data on cloud servers, so that “even if a profile is deleted in the vehicle, it is not deleted from the cloud.” Toyota uses the Toyota app as a platform in which the user defines settings for a User Profile and identifies an associated vehicle, enabling Toyota to receive the User Profile data at the cloud server, then transfer the User Profile data to the associated vehicle. “By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle.” <i>See, e.g., See Toyota, bZ4X 2023 Multimedia Owner’s Manual, p. 48-49, 55, at</i> https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf:

Claim 15	Toyota Accused Instrumentalities
	■ Linking to a Toyota account ● An active Toyota account is required to use a profile. ● Registered profiles are saved in the cloud, so even if a profile is deleted in the vehicle, it is not deleted from the cloud. ● By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle. Toyota's User Profile functionality is accessible via a portable device using a connection to the Internet, for example, via a "handheld device such as a smartphone or tablet[.]" • User Profiles– To help improve the user's overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. See Toyota Newsroom, Toyota Motor North America Introduces Next-Generation Multimedia System To Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for

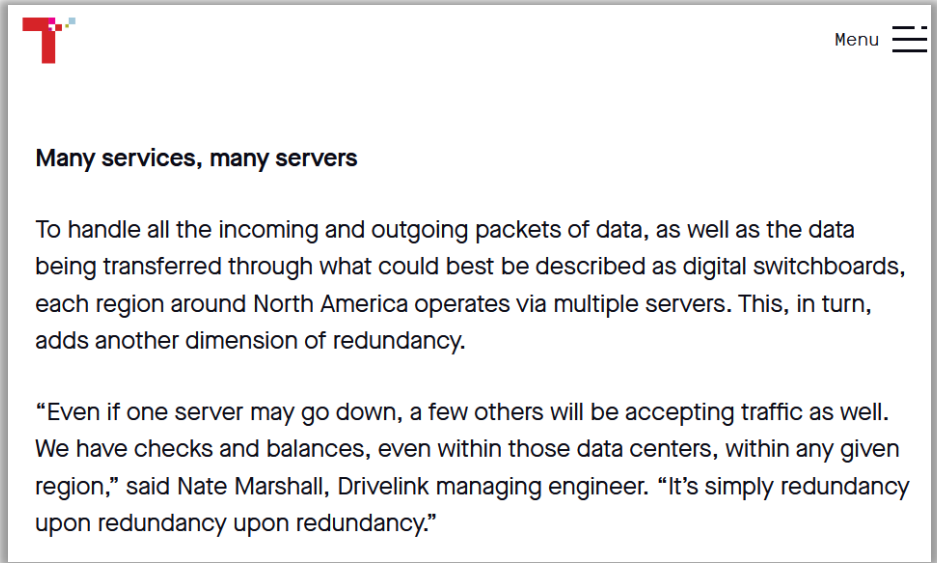
Claim 15	Toyota Accused Instrumentalities
	aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 16	Toyota Accused Instrumentalities
16. The method of claim 1, wherein the user information includes one or more of sign-in credentials, or biometrics or face recognition data, or voice data, or fingerprint data, or eye-retina scan data, or a combination of two or more thereof.	See claim 1, above. The user information includes one or more of sign-in credentials, or biometrics or face recognition data, or a combination of two or more thereof. For example, Toyota’s Face Identification feature can use the user’s “facial geometric features and profile data to verify [the user’s] identity and load [the user’s] saved user profile on the vehicle.” • Face Identification. Certain vehicles equipped with an interior, driver-facing camera use sensor and/or image data from the vehicle’s interior to scan your face when you open the vehicle’s door. If you opt-in and link your user profile using the in-vehicle “Setup Face” process, the Face Identification feature may use your Facial Geometric Features and Profile Data to verify your identity and load your saved user profile on the vehicle. Your Facial Geometric Features will only be stored on your vehicle. See Toyota Privacy Notice, Connected Services, Intro, at https://www.toyota.com/privacyvts/. Toyota’s “Face Identification service takes and stores a facial scan which is then linked to the driver’s profile in the vehicle in order to load the driver’s settings in the vehicle”:

Claim 16	Toyota Accused Instrumentalities
	(f) Facial Recognition System Service. Certain vehicles are equipped with Facial Identification services that are enabled through the use of interior cameras and other technology in the vehicle. The Face Identification service takes and stores a facial scan which is then linked to the driver's profile in the vehicle in order to load the driver's settings in the vehicle. These services may not operate correctly in certain instances, including if the driver's eyes, eyebrows, eyewear, masks, or other features, items, or conditions (e.g., sunlight) obstruct or interfere with the interior camera's ability to take a facial scan or identify the driver. Further, you should note that the services can result in misidentification from time-to-time, particularly with twins or others who share similar facial features. The Face Identification service is for driver convenience only and should not be relied upon for any other purpose, such as theft prevention. See Toyota Privacy Notice, Agreement, Terms of Use, at https://www.toyota.com/privacyvts/. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 17	Toyota Accused Instrumentalities
17[Pre] 17. A cloud-based system including one or more data centers, and each data center of the cloud-based system includes one or more servers, wherein some of said one or more servers have program instructions for enabling connections with vehicles and providing services to vehicles, wherein one service includes enabling access to settings associated with profiles of user accounts of	Whether Toyota or Lexus-branded, the accused functionalities of the Toyota Accused Instrumentalities operate in the same manner for purposes of this patent. Product documentation reflects the interchangeability of the Accused Instrumentalities as between Toyota and Lexus brands.⁴ Toyota uses and benefits from the system of claim 17. Whether or not this preamble is considered to be limiting, Toyota's connected services offerings are implemented in a cloud-based system including one or more data centers, and each data center of the cloud-based system includes one or more servers (e.g., one or more of the Accused Server Instrumentalities). By way of example, the Accused Instrumentalities are included within and/or constitute one or more data centers. At least some of the one or more servers have program instructions for enabling connections with vehicles (e.g., Toyota's Toyota or Lexus-branded vehicles) and providing services (e.g., Connected Services^[1] such as Remote Connect or Drive Connect services to enable access to User Profiles). For example, Toyota, through the manufacture, offer of sale, and sale of vehicles equipped with hardware and software enabling User Profile functionality, as well as Toyota applications, e.g. the Toyota app, and supporting infrastructure, e.g. cloud servers and data centers, uses and benefits from the recited system for setting and transferring user profiles to vehicles as set forth in claim 17. <i>See, e.g.,</i> Toyota Connected, Insights, How Toyota Connected Built Stability into Its Drivelink Telematics Services Platform, at https://www.toyotaconnected.com/insights/drivelink-stability:

⁴ See, e.g., Lexus Support, <https://support.lexus.com/s/article/If-I-own-a-Lexus-and-10451>; Lexus Support, https://support.toyota.com/s/article/If-I-own-a-Toyota-and-10534?language=en_US; Lexus, Privacy Rights, <https://www.lexus.com/privacy>; Lexus Connect Services Privacy Statement, <https://www.lexus.com/privacyvts>.

Claim 17	Toyota Accused Instrumentalities
the cloud-based system, comprising:	 Many services, many servers To handle all the incoming and outgoing packets of data, as well as the data being transferred through what could best be described as digital switchboards, each region around North America operates via multiple servers. This, in turn, adds another dimension of redundancy. “Even if one server may go down, a few others will be accepting traffic as well. We have checks and balances, even within those data centers, within any given region,” said Nate Marshall, Drivelink managing engineer. “It’s simply redundancy upon redundancy upon redundancy.” <i>And see, e.g., Toyota Newsroom, Innovation, Toyota Motor North America Introduces Next-Generation Multimedia System to Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/:</i> In the age of digital transformation in mobility, having a more personalized experience that moves from vehicle to vehicle with the driver is essential. Through the new multimedia system’s User Profile feature, the driver’s personalized settings and experience, from preferred media or radio station to climate settings in some models, will be retained and accessible when the driver next returns to the vehicle. ...

Claim 17	Toyota Accused Instrumentalities
	• User Profiles– To help improve the user’s overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. Using the Toyota app, users of connected Toyota vehicles can link a User Profile associated with the registered name of the user to a vehicle. Toyota enables users to customize settings for their User Profile, for example, the Toyota app prompts the user to enter requested personal data and select preferred settings, such as audio preferences, cloud navigation preferences, and vehicle settings, which may vary by vehicle. Toyota stores the User Profile data on cloud servers. A user can access the Toyota app to associate their User Profile(s) with a Toyota vehicle and/or rent a Toyota vehicle, and through its vehicle hardware and software, which enable communication with a Toyota server, Toyota makes the User Profile portable from vehicle to vehicle. See Toyota Newsroom, Toyota Motor North America Introduces Next-Generation Multimedia System To Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/; see also https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20User%20Profile%20/52cdcfa0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023; see also RCR Wireless News, Toyota Connected and NTT Data to collaborate on mobility service business, April 2020, at https://www.rcrwireless.com/20200408/news/toyota-connected-ntt-data-collaborate-mobility-service-business (Toyota describing “its cloud data center for big data collected from connected cars”).

Claim 17	Toyota Accused Instrumentalities
	Toyota uses the vehicle’s factory installed telematics system and factory-installed data communication module (“DCM”) to communicate stored User Profile data among Toyota’s server, the multimedia system of the User Profile-associated vehicle, and a linked identification device, such as a smart phone or smart key. See Toyota Connected Services Terms of Use, Effective March 7, 2023, at 2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf. The DCM is an embedded cellular device which enables wireless/GPS technology and allows Toyota to collect data from the user and the user’s vehicle. See <i>id.</i> The telematics system uses digital wireless telecommunications technology and GPS technology to enable Toyota Connected Services and Toyota-installed software via third party wireless networks, satellites, and related infrastructure. See <i>id.</i> at 2, 8; and see Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Types of functions, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.ibo1649038197243:

Claim 17	Toyota Accused Instrumentalities
	Types of functions PREVIOUS SECTION < Functional overview NEXT SECTION Before using the function > The functions included are classified into the following types. - Type A: Function achieved by using DCM and the system - Type B: Function achieved by using DCM - Type C Function achieved by using DCM and a smartphone User Profile, Drive Connect, Wi-Fi Connect, OTA Type A Safety Connect Type B Remote Connect, Service Connect Type C See also Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Functional overview, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.fgi1649038197149:

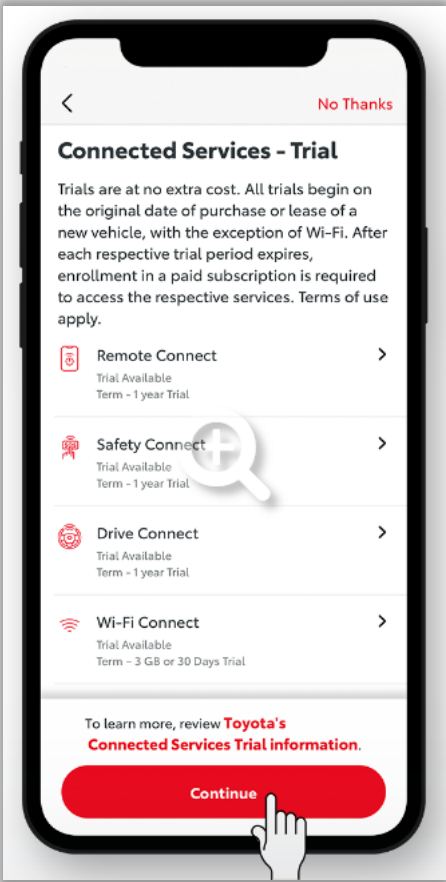
Claim 17	Toyota Accused Instrumentalities
	Type A: Function achieved by using DCM and the system PREVIOUS SECTION < Before using the function NEXT SECTION Type B: Function achieved by using DCM > The functionality of User Profile, Drive Connect (Cloud Navigation, Intelligent Assistant, Destination Assist), Wi-Fi Connect (Wi-Fi Hotspot, Integrated Streaming) is made possible through the shared work of the DCM and the system. These services are available by subscription on select, telematics hardware- equipped vehicles and supported by the Toyota, which operates 24 hours a day, 7 days a week. For details about: - User Profile: Registering a user profile - Intelligent Assistant: Using the Intelligent Assistant system - Cloud Navigation: Cloud navigation - Destination Assist: Destination Assist - Integrated Streaming: Playing Integrated Streaming - Wi-Fi Hotspot: Setting Wi-Fi Hotspot Toyota uses and benefits from the system of claim 17 by providing Toyota Connected Services with User Profile capability, such as Remote Connect and Drive Connect. Toyota provides User Profile access to users who agree to Toyota’s provision of Connected Services and Terms of Use, for example, via a Trial Service Plan or Standard Service Plan. Such Connected Services are included as a trial subscription service plan to all or some Connected Services as part of the purchase price of select vehicles, as well as Connected Services Subscription Plans with User Profile capability, such as the Music Lover, Go Anywhere, and Premium subscription plans. See, e.g., Toyota Support Home, Subscription Plans, at https://support.toyota.com/s/article/Subscription-Plans?language=en_US.

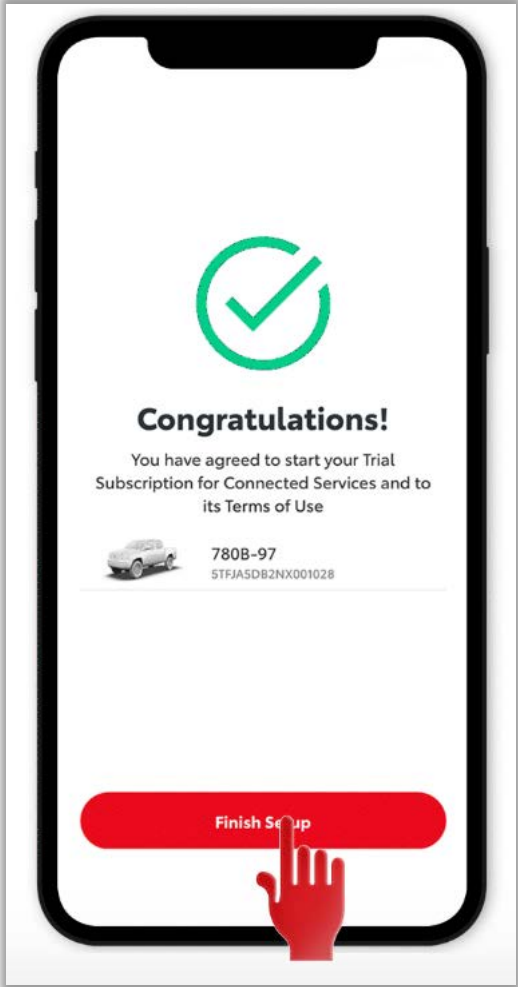
Claim 17	Toyota Accused Instrumentalities
	Before using the function PREVIOUS SECTION < Types of functions NEXT SECTION Type A: Function achieved by using DCM and the system > Subscription After you have accepted the Connected Services Agreement (Connected Services Terms of Use and Connected Services Privacy Notice) on the Toyota App when you register the vehicle to your account, you can begin receiving services. A variety of subscription agreements are available. Contact your Toyota dealer, or call 1-800-331-4331 in the United States, 1-877-855-8377 in Puerto Rico, or 1-888-869-6828 in Canada. Availability of function(s) These functions are not made available in some countries, areas, or on some models.

Claim 17	Toyota Accused Instrumentalities
	What is a User Profile? A User Profile is created when you register an account within the Toyota app. Used on select model year 2022 & newer vehicles, User Profile allows for you & other drivers of the vehicle to customize their driving experience. Personalized settings and preferences stored in your profile are accessed when the vehicle recognizes the profile using any one of the identification devices supported. Conveniently save a total of three (3) User profiles to a vehicle, one (1) Primary Driver & two (2) additional User Profiles. Each is tailored to their individual preferences and settings. The multimedia system in the vehicle first detects your profile when your Toyota app is open and signed in, and Bluetooth® is enabled on your smartphone. Once your profile is saved to the vehicle's multimedia system it can be linked to your mobile phone or smart key fob so it is detected automatically when you enter the vehicle. For additional assistance with User Profile, please visit our Audio & Connected Services Support Tool or reference your Owner's Manual. ... <i>Use only if aware of circumstances surrounding vehicle and it is legal and safe to do so (e.g., do not remotely start engine if vehicle is in an enclosed space or vehicle is occupied by a child). Toyota Digital Key depends on factors outside of Toyota's control, including an operative Bluetooth capable smart device, without which system functionality and availability may be limited or precluded. Service may vary by vehicle and region. Registration and Toyota app download required. Subscription required after trial. Terms of Use apply. Data charges may apply. Services subject to change at any time without notice. See usage precautions and service limitations in the Toyota Owner's Manual for additional details. To learn about Toyota's data collection, use, sharing and retention practices, please visit https://www.toyota.com/privacytvs/.</i>

Claim 17	Toyota Accused Instrumentalities
	See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US. Toyota App User Profile Eligibility <i>Which vehicles are equipped with a User Profile feature?</i> The User Profile capability is available on select model year 2022 and newer vehicles. You can review your vehicles features and capabilities within the Toyota app or refer to your Owner's Manual. You can review your vehicle's Connected Services within the Toyota app or for assistance on how to subscribe to Connected Services please visit our Audio & Connected Services Support tool. <i>The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Toyota is under license. A compatible Bluetooth enabled phone must first be paired. Phone performance depends on software, coverage and carrier.</i> <i>Use only if aware of circumstances surrounding vehicle and it is legal and safe to do so (e.g., do not remotely start engine if vehicle is in an enclosed space or vehicle is occupied by a child). Toyota Digital Key depends on factors outside of Toyota's control, including an operative Bluetooth capable smart device, without which system functionality and availability may be limited or precluded. Service may vary by vehicle and region. Registration and Toyota app download required. Subscription required after trial. Terms of Use apply. Data charges may apply. Services subject to change at any time without notice. See usage precautions and service limitations in the Toyota Owner's Manual for additional details. To learn about Toyota's data collection, use, sharing and retention practices, please visit https://www.toyota.com/privacyvts/.</i>

Claim 17	Toyota Accused Instrumentalities
	See Toyota, Support Home, Toyota App User Profile Eligibility, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10736?language=en_US. The image shows a smartphone screen displaying the Toyota app interface. At the top, it says 'Stay connected wherever you go' with a clock and user icon. Below this is a section with three car images and an 'Add a Vehicle' button. Further down is a 'Rentals' section with a magnifying glass icon, a 'Rent a Toyota' heading, a subtext 'Find your favorite vehicle to rent', a car image, and a 'Make a Reservation' button. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://connectedtechnologiestoyota.com/toyota/feature/Toyota%20App/c0dafef0-1bde-11ec-b8cc-7df09d7dbdc2?model=&year=null; see <i>id.</i>:

Claim 17	Toyota Accused Instrumentalities
	 The screenshot shows a smartphone interface for 'Connected Services - Trial'. At the top, there is a back arrow and a 'No Thanks' link. Below the title, a paragraph states: 'Trials are at no extra cost. All trials begin on the original date of purchase or lease of a new vehicle, with the exception of Wi-Fi. After each respective trial period expires, enrollment in a paid subscription is required to access the respective services. Terms of use apply.' The services listed are: Remote Connect (1 year trial), Safety Connect (1 year trial), Drive Connect (1 year trial), and Wi-Fi Connect (3 GB or 30 Days trial). At the bottom, there is a red 'Continue' button being pointed to by a hand icon. A magnifying glass icon is also visible over the 'Safety Connect' entry. <i>And see id.:</i>

Claim 17	Toyota Accused Instrumentalities
	

Claim 17	Toyota Accused Instrumentalities
	2. SERVICE REQUIREMENTS; SERVICE PROVIDERS; LIMITATIONS; APP (a) To obtain Services: (i) your Vehicle must contain a factory installed telematics system (the “System”) – see Section 11(a) for more details; (ii) your Vehicle must include the software installed by or on behalf of Toyota with all updates made available to you by Toyota (whether such update installed by you, Toyota or a dealer) (collectively, the “Software”) – for more details, see the EULA referenced in Section 1(b) above; (iii) the DCM must be on/active and properly functioning; and (iv) you must have an active Service Plan as provided under Section 3(b) below. (b) Service Plans. Certain new Vehicles come with a trial subscription Service Plan to all or some Services (“Trial Service Plan”). For all other Vehicles, you can obtain the Services by subscribing to an available monthly, annual, or other Service Plan via the App or Website, by contacting us or through other options we may make available to you from time-to-time (“Standard Service Plan”). Unless otherwise noted, all references to “Service Plan” refer to both a Trial Service Plan and Standard Service Plan. You may terminate your Service Plan as provided in Section 7 below. We may terminate your Service Plan or any of the Services at any time as provided in Section 8 below. (i) <i>Trial Service Plans.</i> A Trial Service Plan includes any of the Services included in the price of your Vehicle, whether or not labelled as “Trial”. The duration of your Trial Service Plan, along with the Services available through the Trial Services Plan, will vary by Vehicle and available options. See Toyota Connected Services Terms of Use, Effective March 7, 2023, at 2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf; and see, e.g., Toyota, 2023 Audio Multimedia & Connected Services, Feature Applicability, at https://www.toyota.com/content/dam/toyota/audio-multimedia/pdf/new/MY23_Connected_Services_and_Audio_Multimedia_features-Applicability.pdf:

2023 Audio Multimedia & Connected Services
Feature Applicability

Connected Services Plans

		Connected Services ¹		
		Remote Connect ^{2,5}	Integrated Streaming	Drive Connect ⁷
		Start, lock/unlock your doors and more	Access to your Apple Music® and Amazon Music™ accounts	Cloud Navigation, Intelligent Assistant, and Destination Assist
	Music Lover \$15/Month	✓	✓	X
	Go Anywhere \$15/Month	✓	X	✓
	Premium \$25/Month	✓	✓	✓



OPTIONAL ADD-ON

Wi-Fi Connect
\$25/Month via AT&T

Connected by AT&T, Wi-Fi Connect is your gateway to keeping up with important information while on the go. Easily connect up to five devices at 4G LTE speeds.

*No restriction on data consumption for Integrated Streaming for customers who purchase the Music Lover or Premium Plan.

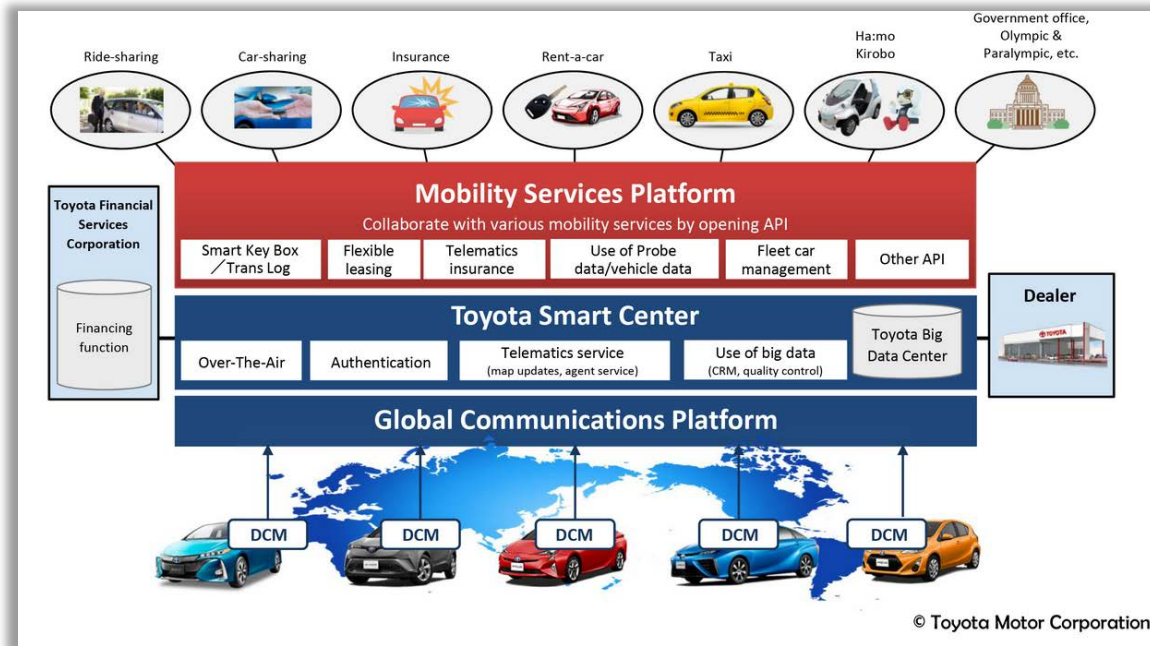
Additionally, Toyota uses and benefits from the system of claim 17 through Toyota's servers that are used to implement Toyota's collection of User Profile data, which (1) Toyota itself uses to provide, offer to sell, and sell other Toyota services and products, (2) Toyota shares with third parties, (3) Toyota sells to third parties, and (4) Toyota itself uses to create its Mobility Services Platform feature ("MSPF" or "MSP"). Examples include Toyota's sales of User Profile data to third parties who offer services to the user and/or for their own marketing purposes, Toyota's sharing of profile data with third parties who offer their services to the user and/or for their own marketing purposes, Toyota's sharing of profile data for targeted

Claim 17	Toyota Accused Instrumentalities
	advertising, and Toyota’s own use of User Profile data to offer or sell additional services and products to the user. See Toyota, Your Privacy Rights, at https://www.toyota.com/support/privacy-notice/. For example, Toyota Connected advertises itself as a company which uses “big data collected from vehicles and analyzed on a cloud platform” to “humanize the driving experience by providing customers secure, seamless and contextual services, elevating the customer experience while benefiting dealers, distributors, and partners”: About Toyota Connected, Inc. Based in Plano, Texas, Toyota Connected North America (TCNA) was established in 2016 to drive Toyota's global efforts for an intelligent mobile society. With big data collected from vehicles and analyzed on a cloud platform, Toyota Connected humanizes the driving experience by providing customers secure, seamless and contextual services, elevating the customer experience while benefiting dealers, distributors, and partners. At the heart of TCNA is Toyota's belief in human-centered mobility and a fundamental commitment to personal privacy. See Toyota Connected, Toyota Connected Leverages Twilio to Build A Faster and More Responsive ‘Drivelink’ Experience, at https://toyotaconnected.com/insights/drivelink-experience.

Claim 17	Toyota Accused Instrumentalities
	Toyota utilizes Connected Services to collect data from connected vehicles, and Toyota creates “new value” for the company by utilizing these data to deliver additional Toyota products and services and promote collaborations with third party service providers. So significant is the value of data collected from connected vehicles, “Toyota is working towards having all of its vehicles become connected vehicles”: To date, Toyota has sold 20 million Lexus and Toyota vehicles that are connected cars, mainly in Japan, the United States, Europe, and China. Toyota’s vision of the connected car is not simply one of connecting the car to the internet. Rather, it is about providing customers with emotional experiences through the movement of people, goods, and activities — a vision centered on people that we call “human connected.” To achieve this, we are operating a call center as a point of contact with customers; the Toyota Smart Center, which provides a variety of services; and the Toyota Big Data Center, which utilizes vehicle information gathered from cars. In addition, we have established the Mobility Service Platform (“MSPF”) to provide mobility services and are promoting collaboration with service providers. Connected cars and connected technologies will be applied to a variety of areas, and we anticipate that which is to be connected will expand to include people, cars, communities, and society (business-to-society, or BtoS). Toyota will handle the information gathered from customers and vehicles with care, utilizing it for the happiness of customers and the development of society while creating new value from experiences centered on mobility. ... through the purchase of installment and lease contracts originated by Toyota dealers. Related to Toyota’s automotive operations, Toyota is working towards having all of its vehicles become connected vehicles, creating new value and reforming businesses by utilizing big data obtained from those connected vehicles, and establishing new mobility services. Toyota’s all other operations business segment includes the information technology related businesses including a web portal for automobile information called GAZOO.com. See United States Securities and Exchange Commission, Toyota Motor Corporation, Form 20-F, June 30, 2023, at https://app.quotemedia.com/data/downloadFiling?webmasterId=90423&ref=317596090&type=PDF&symbol=TOYOF&cdn=01303c2712e9b793c3df5155e787e8e1&companyName=Toyota+Motor+Corporation&formType=20-F&formDescription=Annual+and+transition+report+of+foreign+private+issuers+%5BSections+13+or+15%28d%29%5D&dateFiled=2023-06-30. Toyota’s use, sharing, and sale of User Profile data includes the sharing and sale of User Profile data with/to third party service providers, such as insurance companies, rental car companies, car-sharing companies, mobile retailers, etc. Moreover, Toyota’s collection, use and transfer of User Profile data is used to create Toyota’s Mobility Services Platform, as depicted in the graphic below.

Claim 17

Toyota Accused Instrumentalities



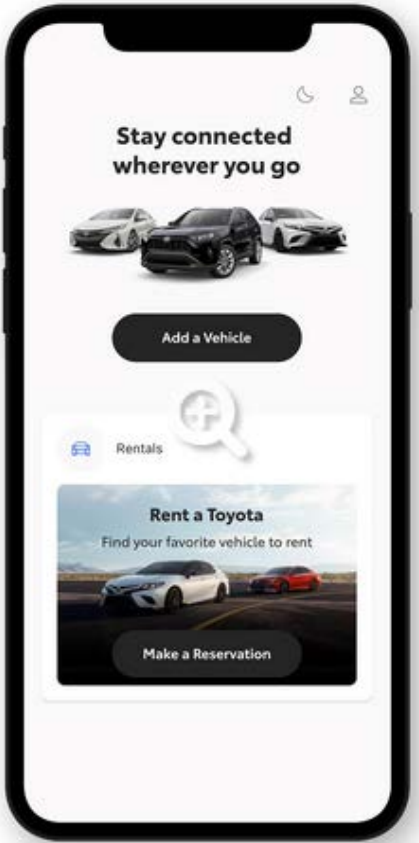
See IEEE, Connected & Autonomous Vehicles, Toyota establishes a Mobility Services Platform and announces collaboration with a car-sharing company, at <https://site.ieee.org/connected-vehicles/2016/10/31/toyota-establishes-mobility-services-platform-announces-collaboration-car-sharing-company/>.

Toyota operates “its cloud data center for big data collected from connected cars” and is developing “new mobility services that utilize integrated vehicle connectivity and big data”:

Claim 17	Toyota Accused Instrumentalities
	In the automotive industry, the value of cars is changing significantly, due to diversification of market needs, the development of new areas such as MaaS and CASE, the entry of new industries utilizing IoT technology, and the emergence of new services such as ride sharing and car sharing. Toyota entered this era by announcing its Connected Strategy at the end of 2016. In order to accelerate MaaS initiatives, Toyota is promoting the deployment of MSPF that supports the MaaS strategy. Toyota Connected will develop MSPF and operate its cloud data center for big data collected from connected cars, which are increasing by millions each year worldwide. ... "This business alliance with NTT Data, with its open and advanced software development capabilities, will enable us to take care of accelerating the development of our TOYOTA's connected strategies. The alliance will strengthen the global structure for providing higher quality mobility services, and contribute to the creation of a thriving mobility society." said Shigeki Tomoyama, President, Toyota Connected. ... Toyota Connected, uses technology and automotive and IT know-how to create new mobility services that utilize integrated vehicle connectivity and big data. See RCR Wireless News, Toyota Connected and NTT Data to collaborate on mobility service business, April 2020, at https://www.rcrwireless.com/20200408/news/toyota-connected-ntt-data-collaborate-mobility-service-business. Toyota's "ingestion" and "analytics" of data from connected vehicles, including User Profile data, enables Toyota to "create the Mobility Service Platform[,] which "enables in turn other services":

Claim 17	Toyota Accused Instrumentalities
	“Thanks to that ingestion of data and the analytics of it, we can create the Mobility Service Platform. That is an open architecture that enables in turn other services,” he said. “You can imagine the vast quantity of information that is going through the Toyota Big Data Centers across the world. Our ability to turn this data into insights and those insights into relevant services is what we are talking about.” See Automotive Logistics, Channel[ing Big Data into Connected Services at Toyota, at https://www.automotive-logistics.media/digital-technology/channelling-big-data-into-connected-services-at-toyota/37898.article. For example, Toyota’s collection of User Profile data is used by Toyota to offer additional Toyota services, such as Navigation services. • Navigation. Your vehicle’s <i>navigation</i> feature (such as Drive Connect) allows you to choose a place of interest, a location on a map, one of your favorites, a destination from your history, or enter an address or coordinates (latitude and longitude). In certain vehicles, navigation includes the Destination Assist program, which connects you with a live agent to provide navigation directions. Your vehicle’s Location Data, Profile Data (such as in-vehicle preferences, favorites, and usage history), and your Account Information are used to verify your account and to offer these features. See Toyota Privacy Notice, Connected Services, Intro, at https://www.toyota.com/privacyvts/.

Claim 17	Toyota Accused Instrumentalities
	As another example, Toyota shares User Profile data with insurance companies, enabling such third-party insurers to make sales offers to users. “Toyota’s Connected Services provide value to customers by offering them unprecedented convenience and peace of mind,” said Steve Basra, group vice president of Connected Technologies at Toyota Motor North America. “Using the latest technologies, we’re able to provide more features and safety resources than ever before. We work with CAS to empower interested customers to use their driving data to obtain potential insurance savings. It’s a great example of how new technology can benefit customers in ways never before possible.” See Toyota Pressroom, Toyota Expands Partnership with Connected Analytic Services, at https://pressroom.toyota.com/toyota-expands-partnership-with-connected-analytic-services/. Toyota further uses and benefits from the system of claim 17 through Toyota’s servers that are used to implement Toyota’s Rent a Toyota service and platform, wherein Toyota’s collection and transfer of User Profile data enable Toyota’s provision of services and sales to “Rent a Toyota” customers. For example, when a user registers a User Profile with Toyota, the Toyota app dashboard advertises to the user the ability to add a vehicle or “Rent a Toyota” vehicle:

Claim 17	Toyota Accused Instrumentalities
	 See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://connectedtechnologiestoyota.com/toyota/feature/Toyota%20App/c0dafef0-1bde-11ec-b8cc-7df09d7dbdc2?model=&year=null; see also Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, at

Claim 17	Toyota Accused Instrumentalities
	https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/52ba95c0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023. Toyota’s Rent a Toyota service uses User Profile data from Rent a Toyota customers, <i>inter alia</i>, “to provide Connected Services and for internal research and data analysis.” Toyota Rent a Toyota further uses User Profile data for “navigation assistance and to activate remote services.” Profile: What information is required in my Toyota app profile? If you have already accessed the Toyota app, your profile is already setup. To complete a rental reservation in the Toyota app, you will need to provide valid driver details. You also have the option to upload your driver’s license and insurance information to save time at the counter.

Claim 17	Toyota Accused Instrumentalities
	Profile and Security: 1. Is the rental vehicle equipped with connected services? If so, how are they used? Toyota Connected Services Privacy and Protection Notice. Your rental vehicle may wirelessly transmit location, driving, and vehicle health data to provide Connected Services and for internal research and data analysis. Connected Services include the use of this vehicle data to respond to emergencies, navigation assistance, and/or to activate remote services. We also collect and use your personal information to facilitate your usage of Connected Services, fulfill your requests, and to manage our relationship with you. To learn more, please visit www.toyota.com/privacyvts. See Toyota, Rent a Toyota, FAQ, at https://www.toyota.com/rental/faq.html. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 17	Toyota Accused Instrumentalities
17[a] receiving, by one of the servers, a request from a vehicle to access a profile for a user account associated with a user, the request identifies user information related to a user;	<i>See claim 17[pre], above.</i> The Accused Instrumentalities receive a request from a vehicle (e.g., Toyota’s Toyota or Lexus-branded vehicle) to access a profile for a user account associated with a user, the request identifies user information related to a user. As described above, Toyota provides a Toyota app for users to register and specify user-profile settings for a vehicle associated with a User Profile, such as music preferences, weather alerts, climate settings, etc.; Toyota stores the User Profile data to a cloud server. Toyota’s User Profile functionality allows for three User Profiles per vehicle, wherein each of the three users can customize their own “driving positions, multimedia settings, and other vehicle settings,” including different settings allowable for the primary driver.

Claim 17	Toyota Accused Instrumentalities
	User profiles Driving positions, multimedia settings, and other vehicle settings for each driver can be saved and the applicable driver can load them when driving the car. ● Up to three user profile can be registered. ● The following setting information can be saved in a profile: • Some multimedia settings : Volume and tone quality, navigation system, audio, etc. • Some vehicle settings : Driving position, air conditioning, meters, etc. ● Vehicle settings are automatically saved to the current profile when they are changed. ● Search history, individual settings, and other private information can be protected by setting up a profile. ● By registering a device to identify the driver, your profile will be automatically loaded. You can select a smartphone and smart key as the device to be registered. ...

Claim 17	Toyota Accused Instrumentalities
	■ Linking to a Toyota account ● An active Toyota account is required to use a profile. ● Registered profiles are saved in the cloud, so even if a profile is deleted in the vehicle, it is not deleted from the cloud. ● By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle. See Toyota, bZ4X 2023 Multimedia Owner's Manual, p. 48, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf ● The driver who is registered as the owner can delete all drivers registered in the vehicle. Drivers who are not the vehicle owner cannot delete the owner's profile. ● The same profile cannot be used in another vehicle at the same time. ● Changing the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears. ● User profile portability from vehicle to vehicle may not be available in the regions other than the U.S. 48 States. <i>Id.</i> at 49; and see <i>id.</i> at 55:

Claim 17	Toyota Accused Instrumentalities		
	<table border="1"> <tr> <td>[Saved profiles]</td><td> The user profile registered on the vehicle are displayed in a list. Touch the profile that desired to be used and enter the PIN code to change the profile. Touching [Edit] enables saved profiles to be deleted. Profiles are still stored on the cloud, preserving all settings and personalized information. Up to three user profiles can be saved on the vehicle. </td></tr> </table> See also Lexus, Connectivity, Multimedia FAQ, What is a User Profile?, at https://www.lexus.com.au/connectivity/apple-carplay-and-android-auto-support: WHAT IS A USER PROFILE? — A User Profile is created when you register an account within the Lexus Connected app. User Profile allows for you & other drivers of the vehicle to customise their driving experience. Personalised settings and preferences stored to your profile are accessed when the vehicle recognises the profile using any one of the identification devices supported. Conveniently save a total of three (3) User profiles to a vehicle, one (1) Primary Driver & two (2) additional User Profiles. Each tailored with their individual preferences.	[Saved profiles]	The user profile registered on the vehicle are displayed in a list. Touch the profile that desired to be used and enter the PIN code to change the profile. Touching [Edit] enables saved profiles to be deleted. Profiles are still stored on the cloud, preserving all settings and personalized information. Up to three user profiles can be saved on the vehicle.
[Saved profiles]	The user profile registered on the vehicle are displayed in a list. Touch the profile that desired to be used and enter the PIN code to change the profile. Touching [Edit] enables saved profiles to be deleted. Profiles are still stored on the cloud, preserving all settings and personalized information. Up to three user profiles can be saved on the vehicle.		

Claim 17	Toyota Accused Instrumentalities
	Toyota’s User Profile functionality allows a primary driver to customize their User Profile to receive “vehicle health reports, manage services, and more,” whereas the additional two User Profiles for a vehicle cannot have these settings. See Toyota, Support, How To: User Profiles on Toyota’s New Audio Multimedia System, at https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/fc9a2440-4959-11ec-99e3-59782dff31a1?model=bZ4X&year=2023; see also Lexus Connected Technology Support, Home, UX 250H, 2024, Support Topics, User Profile, What is a User Profile?, at https://lexusconnectedtechnologysupport.com/lexus/feature/User%20Profile/6bc07ec0-0929-11ed-a686-85aa58672a6c?model=UX%20250H&year=2024:

Claim 17	Toyota Accused Instrumentalities
	GUEST MODE & PROFILE MODE If the vehicle does not detect a profile, the Lexus Interface will not load any personalized preferences or settings. This is referred to as "Guest Mode." On selecting a detected/saved profile, the Lexus Interface will load the personalized preferences or settings of that profile. This is referred to as the "Profile Mode." The below Profile types can be saved to a vehicle: Primary Driver - The main driver or vehicle's owner is the Primary Driver. Additional Profile/s- a family member or a friend who wants to access their profile preferences/settings can create additional profiles. Upto two additional profiles can be saved.

Claim 17	Toyota Accused Instrumentalities
	Toyota's connected vehicles, embedded with a DCM and telematics system, can detect Toyota User Profiles, for example, detecting User Profiles associated with Toyota app users in the vehicle's vicinity. HOME / SUPPORT TOPICS / TOYOTA APP Your Toyota User Profile should now be displayed under "Detected Profiles." To load your profile, select your "name." The User Profile name matches the first and last name you entered when registering for the Toyota App. Note: Multiple Toyota User Profiles may be detected by the Audio Multimedia system if there are other Toyota app users in the vehicle's vicinity. Make sure to choose the correct profile name you wish to load. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20App/af779a10-bbf7-11ec-9c26-bda36a4d479f?model=&year=null.

Claim 17	Toyota Accused Instrumentalities
	The vehicle's multimedia system displays a message with the option to select "settings," and within the menu there is a list of "detected profiles" from which a user can select the desired profile for the user. To load a desired user profile to a vehicle's multimedia system, Toyota's server receives a request from the vehicle to access the desired profile, and the request identifies user information for a user to use the vehicle. For example, the user can opt to save user profile data to a cloud server, as opposed to the cloud and the vehicle's multimedia system. Once the vehicle detects available Toyota User Profiles in the vehicle's vicinity, the user can select the desired profile and use a profile PIN to validate the profile. See Toyota, Support Home, Can I still use my profile if I don't want to save it to the vehicle?, at https://support.toyota.com/s/article/Can-I-still-use-my-profile-if-I-don-t-want-to-save-it-to-the-vehicle?language=en_US: Can I still use my profile if I don't want to save it to the vehicle? Yes. Your profile may be detected and loaded for use within the multimedia system without saving it. Once the profile is detected, the multimedia will display a message with the option to select "Settings." Within the menu there is a list of "Detected profiles" to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to "Save profile." If you do not wish to save the profile to the multimedia system, simply select "Do not save" when prompted. The Profile will no longer appear on the multimedia system after ACC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle. For additional assistance with User Profile please visit our Audio & Connected Services Support Tool or reference your Owner's Manual.

Claim 17	Toyota Accused Instrumentalities
	A Content providerProvides contents to the application server. B Application serverProvides applications to the system or a smartphone. C Smartphone *Using the Toyota mobile application, communication is relayed between the system, application server and content provider. D ApplicationsDisplay usable content from the content providers on the screen using the data connection of the connected smartphone or DCM. E SystemContent received, via a smartphone or DCM, from content provider servers is displayed on the screen. The system is equipped with an application player to run applications. F Via DCM See Toyota, 2022 Corolla Cross, Manuals and Warranties, Audio & Multimedia, Connected Services, Connected Services overview, Type A: Function achieved by using a smartphone or DCM, at https://www.toyota.com/owners/resources/warranty-owners-manuals.corolla-cross.2022.digital.om0a012u.ch07se010402; and see, e.g., Toyota, 2022 Highlander Hybrid, Manuals and Warranties, Audio & Multimedia, Connected Services, Connected Services overview, Type A: Function achieved by using a smartphone or DCM, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander-hv.2022.digital.om0e140u.ch09se010402. Toyota makes and sells vehicles with factory installed multimedia system hardware and software, which includes an on-board DCM. The DCM enables wireless/GPS technology and allows for the collection of data from the user and the user's vehicle, as well as communications between the vehicle and Toyota's server. By default, the DCM is on/active when the vehicle is delivered to the customer and will remain on/active and continue to collect data from the user and the user's vehicle until the customer contacts Toyota and requests deactivation. See, e.g.:

Claim 17	Toyota Accused Instrumentalities
	(i) the Connected Services Privacy Notice located at www.Toyota.com/privacyvts (“Privacy Notice”). Carefully review the Privacy Notice as it applies to your personal information and Vehicle (as defined below) data that we collect, use, store, share and secure to provide the Services. Please note that your Vehicle comes with a data communication module (“DCM”) that enables the Wireless/GPS Technology, as described in Section 11(a), and allows for the collection of data from you and your vehicle (e.g., location, health and driving data). BY DEFAULT, THE DCM IS ON/ACTIVE WHEN YOUR VEHICLE IS DELIVERED AND WILL REMAIN ON/ACTIVE (AND CONTINUE TO COLLECT DATA FROM YOU AND YOUR VEHICLE) UNTIL YOU CONTACT US AND REQUEST THAT IT BE DEACTIVATED. Toyota Connected Services Terms of Use, Effective March 7, 2023, at 1-2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf; see <i>id.</i> at 2: 2. SERVICE REQUIREMENTS; SERVICE PROVIDERS; LIMITATIONS; APP (a) To obtain Services: (i) your Vehicle must contain a factory installed telematics system (the “System”) – see Section 11(a) for more details; (ii) your Vehicle must include the software installed by or on behalf of Toyota with all updates made available to you by Toyota (whether such update installed by you, Toyota or a dealer) (collectively, the “Software”) – for more details, see the EULA referenced in Section 1(b) above; (iii) the DCM must be on/active and properly functioning; and (iv) you must have an active Service Plan as provided under Section 3(b) below. Toyota advertises that its vehicles with Connected Services functionality “carry onboard technologies to process complex road data.” The data is processed via edge computing or “via cloud computing through an online server”:

Claim 17	Toyota Accused Instrumentalities
	And data engineers are working to make that data easy to consume, to process it faster via edge computing (processing data closer to the source where it is picked up, such as directly in a vehicle’s onboard computer systems) or via cloud computing through an online server. They have to be able to do this with millions of vehicles today and this number grows daily with every car sale. These vehicles carry onboard technologies to process complex road data – securely and able to scale to solve for solutions we don’t even know we need yet. See Toyota Connected, Case Study, Living on the Edge, Dreaming on a cloud, and the Big Idea of Big Data: How Toyota Connected is using Data to Make Smarter Cars, at https://www.toyotaconnected.com/insights/living-on-the-edge. Toyota stores User Profile data on cloud servers, so that “even if a profile is deleted in the vehicle, it is not deleted from the cloud.” Toyota uses the Toyota app as a platform in which the user defines settings for a User Profile and identifies an associated vehicle, enabling Toyota to receive the User Profile data at the cloud server, then transfer the User Profile data to the associated vehicle. “By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle.” See, e.g., See Toyota, bZ4X 2023 Multimedia Owner’s Manual, p. 48-49, 55, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf:

Claim 17	Toyota Accused Instrumentalities
	■ Linking to a Toyota account ● An active Toyota account is required to use a profile. ● Registered profiles are saved in the cloud, so even if a profile is deleted in the vehicle, it is not deleted from the cloud. ● By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.
17[b] processing, by one of the servers, at least part of the user information to verify the access for the user, the profile having a plurality of settings of the user for the vehicle [and at least one of said plurality of	See claim 17[pre] and claim 17[a], above. The Accused Instrumentalities process at least part of the user information to verify the access for the user. As described above, the Toyota vehicle's embedded hardware and software enable communication between the vehicle and Toyota's server, for example, to verify user-identifying information to allow the user to access the profile associated with the user account. For example, users can access their user profile in a vehicle using a Bluetooth handheld device, such as a smartphone or a tablet, smart key, or via manual login, in order to identify and select the appropriate user profile associated with the user account.

Claim 17	Toyota Accused Instrumentalities
settings being restricted for use on the vehicle, wherein] at least part of the plurality of settings of the profile being stored on storage accessible to said one or more servers; and	• User Profiles– To help improve the user’s overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. See Toyota Newsroom, Toyota Motor North America Introduces Next-Generation Multimedia System To Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/. Additionally, a User Profile may be applied to a vehicle after Toyota’s server has processed user information to verify the user for accessing the profile associated with the user account, for example, after the user enters a PIN, which is confirmed by the vehicle communication module’s communications with a Toyota server. As another example, if a user links a preferred identification device with their User Profile, Toyota uses vehicle embedded hardware and software to relay communications between the device and the server, using device identifier data assigned to a user’s device to verify the user for accessing the profile associated with the user account. See, e.g.:

Claim 17	Toyota Accused Instrumentalities
	To load your saved profile, select 'Settings' (gear icon) within the menu there is a list of 'Saved profiles' to select from. Select the desired profile for the Driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. A banner will confirm that your profile has been successfully loaded to the multimedia system. You can also Link your preferred identification device to automatically load your saved profile. For assistance on how to Link your preferred identification device please visit our Audio & Connected Services Support tool or reference your Owner's Manual. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US; see also Toyota, Privacy Notice, Connected Services, at https://www.toyota.com/support/privacy-notice/:

Claim 17	Toyota Accused Instrumentalities
	• <i>Device Identifier.</i> We automatically collect your IP address or other unique identifier ("Device Identifier") for the Device (computer, mobile phone, tablet or other device) you use to access the Platforms. A Device Identifier is a number that is assigned to your Device when you access a website or its servers, and our computers identify your device by its Device Identifier. We, and our affiliates, service providers, business partners, and other parties, including authorized dealers, may use a Device Identifier to, among other things, administer the Platforms; help diagnose problems with our servers; analyze trends; track users' web page movements over time and across different websites, Platforms, or other mobile, online, or offline services; to help identify you and your shopping cart, and gather broad demographic information for aggregate use. Also, a user can link a smart key to their User Profile, according to Toyota's instructions, and Toyota uses the vehicle's embedded hardware and software, configured to relay communications with the smart key and the Toyota server, to verify the user for accessing the profile associated with the user account.

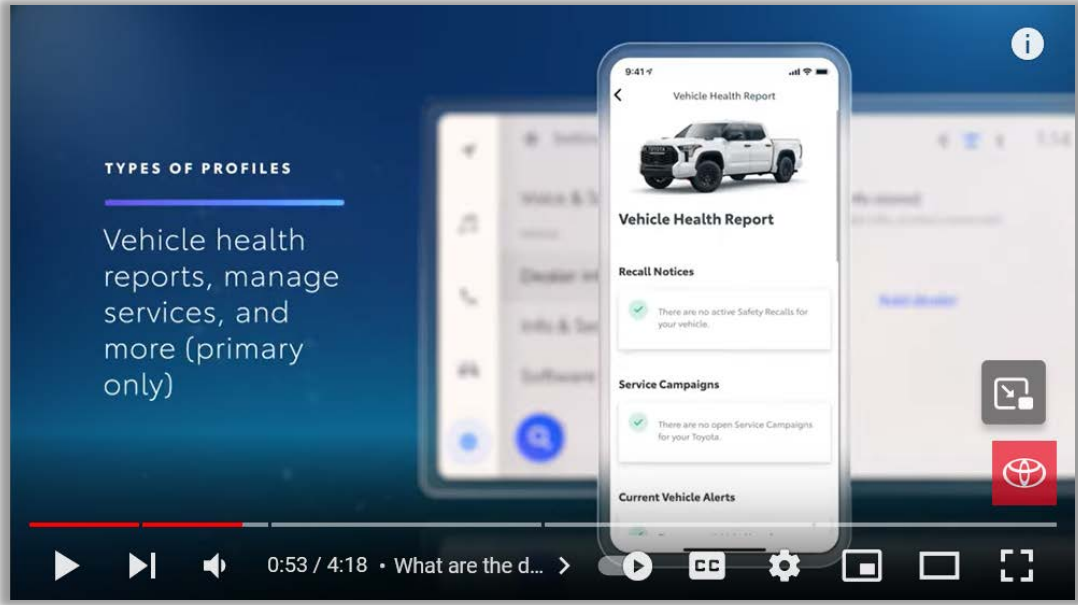
Claim 17	Toyota Accused Instrumentalities
	On select model year 2022 and newer vehicles are equipped with the User Profile feature. You can link a smartphone or smart key / key fob to identify your saved profile automatically when detected by your vehicle. To link a Smartphone to your profile, select 'Settings' (gear icon), then 'Personal info' and 'Link devices'. Continue following the instruction on the display to complete. To link a smart key / key card to your profile, select 'Settings' (gear icon), then 'Personal info' and enable the 'Link key' while your smart key / key card is in the vehicle with you. Note: Your User Profile is associated with your Digital Key and allows your profile to be loaded automatically. No further setup required. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US; see also Lexus, Support Home, How can I add My User Profile to a Vehicle?, at https://support.lexus.com/s/article/How-can-I-add-my-User-Profile-to-a-vehicle:

Claim 17	Toyota Accused Instrumentalities
	HOW CAN I ADD MY USER PROFILE TO A VEHICLE? 🕒 Sep 24, 2022 Your profile is initially detected by the multimedia system using your smartphone when you enter the vehicle. The Lexus app must be open and signed in, and Bluetooth® must be enabled on the smartphone. Once a profile is detected, the multimedia will display a message with the option to select “Settings.” Within the menu there is a list of “Detected profiles” to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to “Save profile” and continue. A banner will confirm that your profile has been successfully saved to the multimedia system. For more assistance with User Profile please visit our Connected Technology Support Tool or reference your Owner’s Manual. <i>The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Lexus is under license. A compatible Bluetooth enabled phone must first be paired. Phone performance depends on software, coverage and carrier.</i> Toyota uses and benefits from the system of claim 17, including the profile having a plurality of settings of the user for the vehicle, at least part of the plurality of settings of the profile being stored on storage accessible to said one or more servers. <i>See, e.g.:</i>

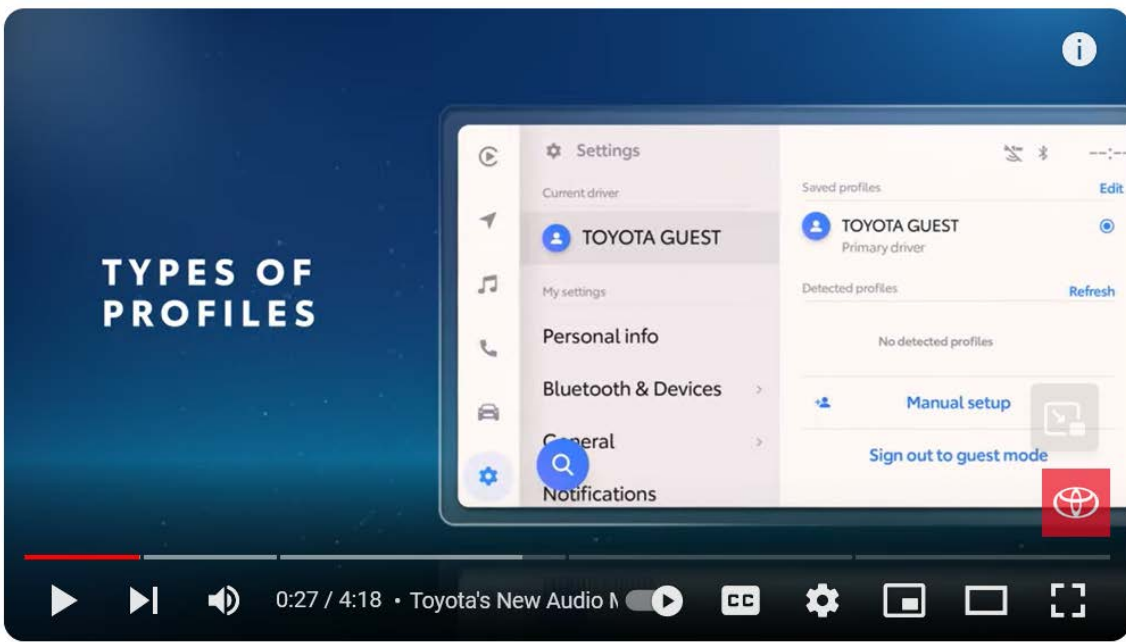
Claim 17	Toyota Accused Instrumentalities
	What is a Toyota User Profile? A User Profile allows you to have a personalized cloud-stored collection of select driver preferences & settings to enhance your Toyota driving experience. ...

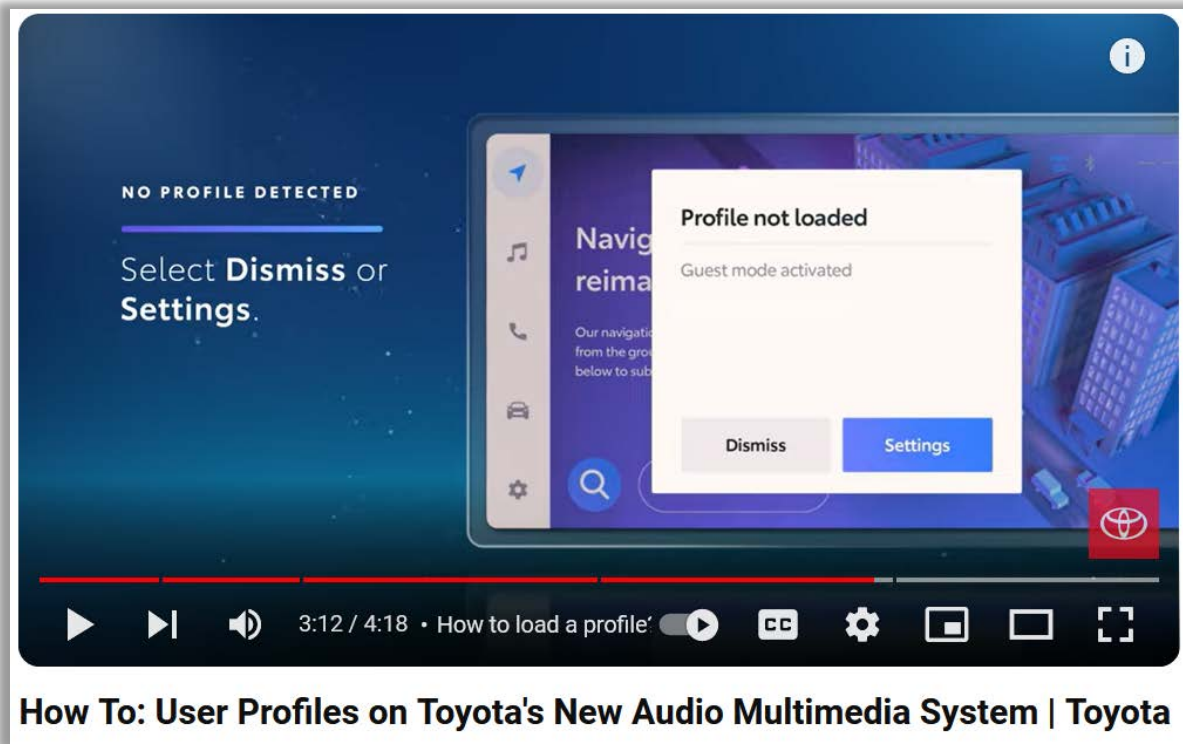
Claim 17	Toyota Accused Instrumentalities
	Examples of Cloud-Stored Personalized Settings: Audio Settings ▪ Radio Station Favorites ▪ Recently Played AM/FM Stations ▪ Treble/Bass/Mid Programming ▪ Music Streaming Preferences Cloud Navigation Settings ▪ Home & Work Addresses ▪ Recent Addresses ▪ Show/Hide Traffic ▪ Avoid Toll Roads ▪ Notification Preferences Vehicle Preferences ▪ Date & Time ▪ Language & Units ▪ Driver seat adjustments ▪ Heads up display settings

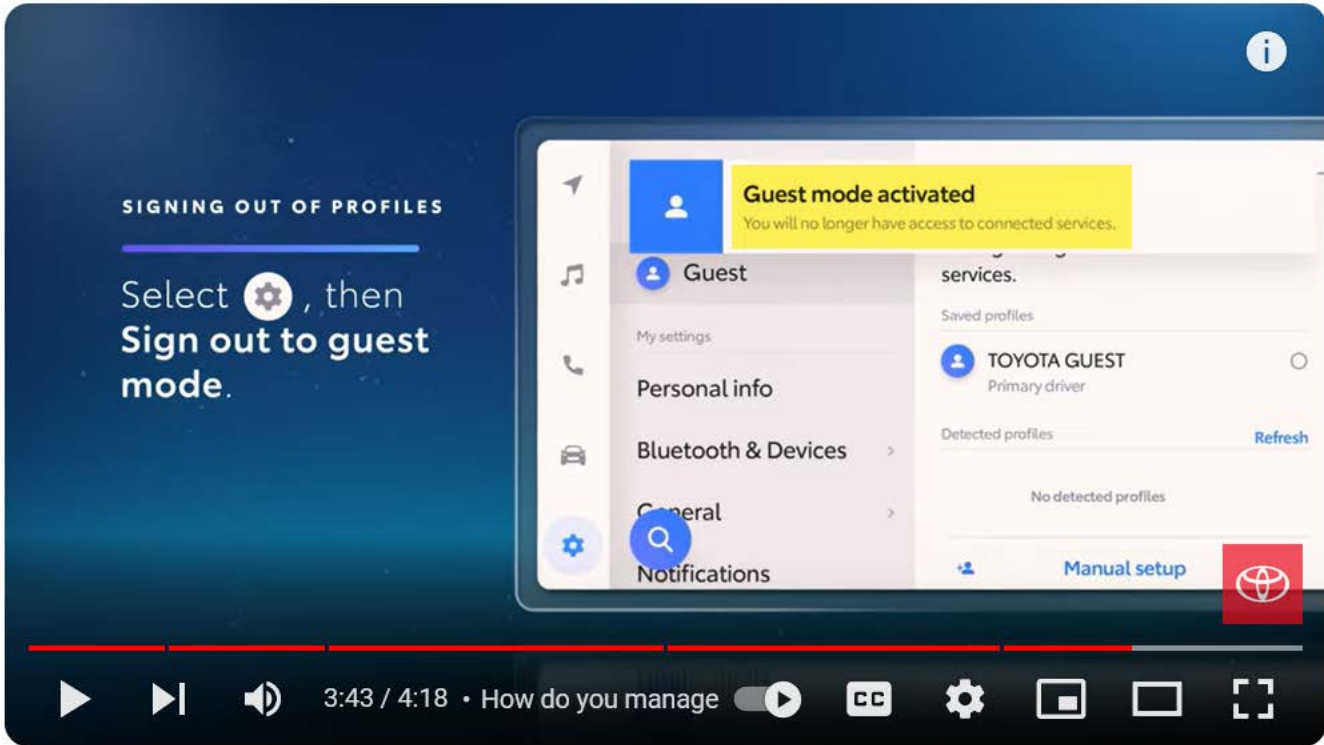
Claim 17	Toyota Accused Instrumentalities
	See Toyota, Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, at https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/52cdcfa0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023. To the extent this claim element is corrected to require “and at least one of said plurality of settings being restricted for use on the vehicle, wherein” the Accused Instrumentalities would satisfy this requirement. As shown in the instructional video below, at least one of the above-described plurality of settings of the user for the vehicle is restricted for use on the vehicle because Toyota restricts user profile settings on the vehicle according to “types of profiles.” For example, Toyota restricts the settings available on the vehicle depending on the type of user profile activated. Toyota allows the primary driver to customize their User Profile to receive “vehicle health reports, manage services, and more,” whereas the additional two User Profiles for a vehicle cannot access these settings.

Claim 17	Toyota Accused Instrumentalities
	 See Toyota, Support, How To: User Profiles on Toyota's New Audio Multimedia System, at https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/fc9a2440-4959-11ec-99e3-59782dff31a1?model=bZ4X&year=2023; see also Lexus Connected Technology Support, Home, UX 250H, 2024, Support Topics, User Profile, What is a User Profile?, at https://lexusconnectedtechnologysupport.com/lexus/feature/User%20Profile/6bc07ec0-0929-11ed-a686-85aa58672a6c?model=UX%20250H&year=2024:

Claim 17	Toyota Accused Instrumentalities
	GUEST MODE & PROFILE MODE If the vehicle does not detect a profile, the Lexus Interface will not load any personalized preferences or settings. This is referred to as "Guest Mode." On selecting a detected/saved profile, the Lexus Interface will load the personalized preferences or settings of that profile. This is referred to as the "Profile Mode." The below Profile types can be saved to a vehicle: Primary Driver - The main driver or vehicle's owner is the Primary Driver. Additional Profile/s- a family member or a friend who wants to access their profile preferences/settings can create additional profiles. Upto two additional profiles can be saved.

Claim 17	Toyota Accused Instrumentalities
	 How To: User Profiles on Toyota's New Audio Multimedia System Toyota Toyota, How To: User Profiles on Toyota’s New Audio Multimedia System, at https://www.youtube.com/watch?v=IBS6mlpArFQ&t=10s Additionally, at least one of the above-described plurality of settings of the user for the vehicle is restricted for use on the vehicle when “guest mode” is activated. As described below, when the vehicle is in “guest mode, there are no personalized preferences or settings for the vehicle.”

Claim 17	Toyota Accused Instrumentalities
	 The screenshot displays the Toyota Multimedia System interface. On the left, a dark blue screen shows the text 'NO PROFILE DETECTED' and 'Select Dismiss or Settings.' In the center, a white pop-up dialog box contains the text 'Profile not loaded' and 'Guest mode activated', with 'Dismiss' and 'Settings' buttons at the bottom. The background of the interface shows a navigation screen with a map and various icons. The video player controls at the bottom indicate the video is at 3:12 / 4:18. How To: User Profiles on Toyota's New Audio Multimedia System Toyota <i>Id.; see id.:</i>

Claim 17	Toyota Accused Instrumentalities
	 The screenshot displays the Toyota Audio Multimedia System interface. On the left, a dark blue screen with white text reads: "SIGNING OUT OF PROFILES", "Select [gear icon], then Sign out to guest mode." On the right, a white overlay shows the "Guest" profile settings. A yellow banner at the top of the overlay states "Guest mode activated" and "You will no longer have access to connected services." Below this, the "Guest" profile is listed under "Saved profiles" with a "Refresh" button. The "Detected profiles" section shows "No detected profiles". At the bottom of the overlay, there is a "Manual setup" button and the Toyota logo. The video player controls at the bottom show a progress bar at 3:43 / 4:18 and the title "How To: User Profiles on Toyota's New Audio Multimedia System Toyota". How To: User Profiles on Toyota's New Audio Multimedia System Toyota As shown above, and further described below, “guest mode” can be activated to restrict a driver’s access to any settings “in instances, such as valet, when you need to pass your vehicle off to someone else who you wish not to have access to your connected services, personalized preferences, and settings within the vehicle.”

Claim 17	Toyota Accused Instrumentalities
	What is Sign out or Guest mode? If a profile has been loaded for use on the multimedia system you can easily sign out of the profile. This then puts the multimedia in what is called Guest mode. Guest mode is often used in instances, such as valet, when you need to pass your vehicle off to someone else who you wish not to have access to your connected services, personalize preferences, and settings within the vehicle. To sign out into Guest mode, select "Settings" (gear icon), scroll down on the right side of the multimedia display and select "Sign out." You will be required to enter your profile PIN in the multimedia system to authenticate the profile. Once verified using your profile PIN, your selected profile will be loaded again for use. A welcome banner will confirm that your profile has been successfully loaded to the multimedia system." Toyota Support Home, What is Sign Out or Guest mode?, at https://support.toyota.com/s/article/What-is-Sign-out-or-Guest-mode?language=en_US

Claim 17	Toyota Accused Instrumentalities
	[Sign out to guest mode] Sign out of the current my settings to go to guest mode. This feature can be used for valet to protect personal information. Values of the my settings other than search history and personal settings will be carried over to the my setting of the guest. Toyota 2023 Prius Prime Multimedia Owner's Manual at 50, at https://assets.sia.toyota.com/publications/en/omnav-s/OM47F28U/pdf/OM47F28U.pdf?_gl=1*1k0ptjn*_tmna_ga*MTk3ODYyMTk2LjE2OTQxOTM0MDY.*_tmna_ga_EP43E5EFVZ*MTY5NDQ0MTg2NC4zLjEuMTY5NDQ0OTgzNC41Ni4wLjA. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 17	Toyota Accused Instrumentalities
17[c] transferring, by one of the servers, upon verification of the user information, one or more settings of the plurality of settings to [storage of] the vehicle, the transferring is configured to instruct software and hardware associated the vehicle to enable said one or more settings for use on the vehicle to customize said vehicle for the user, the request and the transferring being via wireless communication of said vehicle.	See claim 17[pre] and claim 17[a]-[b], above. The Accused Instrumentalities transfer, upon verification of the user information, one or more settings of the plurality of settings to [storage of] the vehicle. For example, Toyota’s server transfers one or more user profile settings to storage of the vehicle after a user enters their profile PIN and the PIN is confirmed. See Toyota, Support Home, Can I still use my profile if I don’t want to save it to the vehicle?, at https://support.toyota.com/s/article/Can-I-still-use-my-profile-if-I-don-t-want-to-save-it-to-the-vehicle?language=en_US: Can I still use my profile if I don’t want to save it to the vehicle? Yes. Your profile may be detected and loaded for use within the multimedia system without saving it. Once the profile is detected, the multimedia will display a message with the option to select “Settings.” Within the menu there is a list of “Detected profiles” to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to “Save profile.” If you do not wish to save the profile to the multimedia system, simply select “Do not save” when prompted. The Profile will no longer appear on the multimedia system after ACC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle. For additional assistance with User Profile please visit our Audio & Connected Services Support Tool or reference your Owner’s Manual.

Claim 17	Toyota Accused Instrumentalities
	The transferring is configured to instruct software and hardware associated the vehicle to enable said one or more settings for use on the vehicle to customize said vehicle for the user, the request and the transferring being via wireless communication of said vehicle. For example, Toyota transfers cloud-stored User Profile data from Toyota’s server to the multimedia system of the User Profile-associated vehicle, using the vehicle’s factory installed telematics system and factory-installed DCM to communicate with Toyota’s server and apply one or more settings to the vehicle for customizing the vehicle to use those User Profile-associated settings. <i>See</i> Toyota Connected Services Terms of Use, Effective March 7, 2023, at 1-2, <i>at</i> https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf. The DCM is an embedded cellular device which enables wireless/GPS technology and allows Toyota to collect data from the user and the user’s vehicle. <i>See id.</i> The telematics system uses digital wireless telecommunications technology and GPS technology to enable Toyota Connected Services and Toyota-installed software via third party wireless networks, satellites, and related infrastructure. <i>See id.</i> at 2, 8; <i>and see</i> Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Types of functions, <i>at</i> https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.ibo1649038197243:

Claim 17	Toyota Accused Instrumentalities
	Types of functions PREVIOUS SECTION < Functional overview NEXT SECTION Before using the function > The functions included are classified into the following types. - Type A: Function achieved by using DCM and the system - Type B: Function achieved by using DCM - Type C Function achieved by using DCM and a smartphone User Profile, Drive Connect, Wi-Fi Connect, OTA Type A Safety Connect Type B Remote Connect, Service Connect Type C See also Toyota, 2023 Highlander Owner's Manual, Audio & Multimedia, Connected Services, Connected Services overview, Functional overview, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.fgi1649038197149:

Claim 17	Toyota Accused Instrumentalities
	Type A: Function achieved by using DCM and the system PREVIOUS SECTION < Before using the function NEXT SECTION Type B: Function achieved by using DCM > The functionality of User Profile, Drive Connect (Cloud Navigation, Intelligent Assistant, Destination Assist), Wi-Fi Connect (Wi-Fi Hotspot, Integrated Streaming) is made possible through the shared work of the DCM and the system. These services are available by subscription on select, telematics hardware- equipped vehicles and supported by the Toyota, which operates 24 hours a day, 7 days a week. For details about: - User Profile: Registering a user profile - Intelligent Assistant: Using the Intelligent Assistant system - Cloud Navigation: Cloud navigation - Destination Assist: Destination Assist - Integrated Streaming: Playing Integrated Streaming - Wi-Fi Hotspot: Setting Wi-Fi Hotspot And see: • User Profiles– To help improve the user’s overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile.

Claim 17	Toyota Accused Instrumentalities
	Toyota Newsroom, Innovation, Toyota Motor North America Introduces Next-Generation Multimedia System to Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 18	Toyota Accused Instrumentalities
18. The cloud-based system of claim 17, wherein the profile is transferrable to one or more other vehicles.	See claim 17, above. The profile is transferrable to one or more other vehicles. For example, Toyota’s User Profile functionality is a “personalized experience that moves from vehicle to vehicle with the driver[.]” See, e.g., Toyota Newsroom, Innovation, Toyota Motor North America Introduces Next-Generation Multimedia System to Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/:

Claim 18	Toyota Accused Instrumentalities
	In the age of digital transformation in mobility, having a more personalized experience that moves from vehicle to vehicle with the driver is essential. Through the new multimedia system's User Profile feature, the driver's personalized settings and experience, from preferred media or radio station to climate settings in some models, will be retained and accessible when the driver next returns to the vehicle. Toyota's User Profile system "is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system." <i>See id.</i>: • User Profiles– To help improve the user's overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 19	Toyota Accused Instrumentalities
19. The cloud-based system of claim 17, wherein the vehicle is configured to use the one or more settings for the vehicle while the profile is active in the vehicle, and said one or more settings are removed when the profile is no longer active in the vehicle, and wherein the request is processed automatically by the vehicle upon a pairing of a user device or input by the user of credentials.	See claim 17, above. The vehicle is configured to use the one or more settings for the vehicle while the profile is active in the vehicle, and said one or more settings are removed when the profile is no longer active in the vehicle, and wherein the request is processed automatically by the vehicle upon a pairing of a user device or input by the user of credentials. As described above, Toyota's connected vehicles, embedded with a DCM and telematics system, automatically detects Toyota User Profiles of Toyota app users in the vehicle's vicinity. <i>What are the key features of a User Profile?</i> Key features of a User Profile can be used and carried along with you within select model year 2022 and new vehicles: · Your radio and preset favorites · Your preferences such as display day/night mode, seat settings, language · Use your account PIN to easily sign in when your profile has been detected · You can quickly sign out to Guest mode when using services like Valet · Use various devices such as a smart key or your smartphone to sign into your profile automatically See Toyota, Toyota Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US.

Claim 19	Toyota Accused Instrumentalities
	HOME / SUPPORT TOPICS / TOYOTA APP Your Toyota User Profile should now be displayed under "Detected Profiles." To load your profile, select your "name." The User Profile name matches the first and last name you entered when registering for the Toyota App. Note: Multiple Toyota User Profiles may be detected by the Audio Multimedia system if there are other Toyota app users in the vehicle's vicinity. Make sure to choose the correct profile name you wish to load. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20App/af779a10-bbf7-11ec-9c26-bda36a4d479f?model=&year=null.

Claim 19	Toyota Accused Instrumentalities
	What is a User Profile? A User Profile is created when you register an account within the Toyota app. Used on select model year 2022 & newer vehicles, User Profile allows for you & other drivers of the vehicle to customize their driving experience. Personalized settings and preferences stored in your profile are accessed when the vehicle recognizes the profile using any one of the identification devices supported. Conveniently save a total of three (3) User profiles to a vehicle, one (1) Primary Driver & two (2) additional User Profiles. Each is tailored to their individual preferences and settings. The multimedia system in the vehicle first detects your profile when your Toyota app is open and signed in, and Bluetooth® is enabled on your smartphone. Once your profile is saved to the vehicle's multimedia system it can be linked to your mobile phone or smart key fob so it is detected automatically when you enter the vehicle. For additional assistance with User Profile, please visit our Audio & Connected Services Support Tool or reference your Owner's Manual. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US. Upon detecting a pairing with a User Profile-associated identification device, such as a smartphone, the vehicle's multimedia system will display a message with the option to select "settings," and within the menu there is a list of "detected profiles" from which a user can select the desired profile for the driver. To load a desired user profile to a vehicle's multimedia system, Toyota's server receives a request from the vehicle to access the desired profile, and the request identifies user information related to the user. For example, the user can opt to save user profile data to a cloud server, as opposed to the cloud and the vehicle's multimedia system. Once the vehicle's electronics automatically generates a request to the server, upon detecting available Toyota

Claim 19	Toyota Accused Instrumentalities
	User Profiles in the vehicle’s vicinity, the user can select the desired profile and input user credential for the user account, such as a profile PIN, to validate the profile. See Toyota, Support Home, Can I still use my profile if I don’t want to save it to the vehicle?, at https://support.toyota.com/s/article/Can-I-still-use-my-profile-if-I-don-t-want-to-save-it-to-the-vehicle?language=en_US. Toyota’s User Profile functionality includes cloud-stored settings for the user profile-associated vehicle, wherein the vehicle is configured to use the one or more settings for the vehicle while the profile is active in the vehicle, but the one or more settings are removed when the profile is no longer active. For example, the “Profile will no longer appear on the multimedia system after AC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle”: Can I still use my profile if I don’t want to save it to the vehicle? Yes. Your profile may be detected and loaded for use within the multimedia system without saving it. Once the profile is detected, the multimedia will display a message with the option to select “Settings.” Within the menu there is a list of “Detected profiles” to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to “Save profile.” If you do not wish to save the profile to the multimedia system, simply select “Do not save” when prompted. The Profile will no longer appear on the multimedia system after ACC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle. For additional assistance with User Profile please visit our Audio & Connected Services Support Tool or reference your Owner’s Manual. <i>See id.</i>

Claim 19	Toyota Accused Instrumentalities
	Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 20	Toyota Accused Instrumentalities
20. The cloud-based system of claim 17, wherein one or more of the settings are associated with systems of the vehicle, and the systems of the vehicle are configured to receive input or cause one or more actions or functions, wherein the systems include one or more of a door lock, a heating and cooling system, a speaker, an engine start/shut switch, a user interface, a button, a lever, a key, a graphical user interface (GUI), an electronic component of the vehicle, a telecommunication s system, a remote	See claim 17, above. One or more of the settings are associated with systems of the vehicle, and the systems of the vehicle are configured to receive input or cause one or more actions or functions, wherein the systems include one or more of a door lock, a heating and cooling system, a speaker, an engine start/shut switch, a user interface, a button, a lever, a key, a graphical user interface (GUI), an electronic component of the vehicle, a telecommunications system, a remote face-to-face conferencing system, a mapping function system, a GPS system, a fingerprint system, a touch screen, a navigation system, a wireless communication system, a data encryption system, WiFi logic, Bluetooth logic, NFC logic, a microprocessor, a memory system, a camera, application programming interfaces (APIs) for vehicle systems, kernel level systems, function invoking systems, temperature detection systems, HVAC APIs, display screens, data network logic, mechanical systems, electrical systems, physical mechanical and electrical systems, seat mechanical systems, mirror systems, alarm systems, battery systems, battery, lighting systems, an application shared by mobile a device present and paired with the vehicle for providing at least one interface in a display screen of the vehicle, or vehicle electronics system. As shown below, for example, one or more of the settings of a user profile are associated with systems of the vehicle, such as audio settings, cloud navigation settings, and vehicle preferences, which are “cloud-stored”. See, e.g.: What is a Toyota User Profile? A User Profile allows you to have a personalized cloud-stored collection of select driver preferences & settings to enhance your Toyota driving experience.

Claim 20	Toyota Accused Instrumentalities
face-to-face conferencing system, a mapping function system, a GPS system, a fingerprint scanner, a touch screen, a navigation system, a wireless communication system, a data encryption system, WiFi logic, Bluetooth logic, NFC logic, a microprocessor, a memory system, a camera, application programming interfaces (APIs) for vehicle systems, kernel level systems, function invoking systems, temperature detection systems, HVAC APIs, display screens, data network logic, mechanical systems, electrical	... Examples of Cloud-Stored Personalized Settings: Audio Settings ▪ Radio Station Favorites ▪ Recently Played AM/FM Stations ▪ Treble/Bass/Mid Programming ▪ Music Streaming Preferences Cloud Navigation Settings ▪ Home & Work Addresses ▪ Recent Addresses ▪ Show/Hide Traffic ▪ Avoid Toll Roads ▪ Notification Preferences Vehicle Preferences ▪ Date & Time ▪ Language & Units ▪ Driver seat adjustments ▪ Heads up display settings

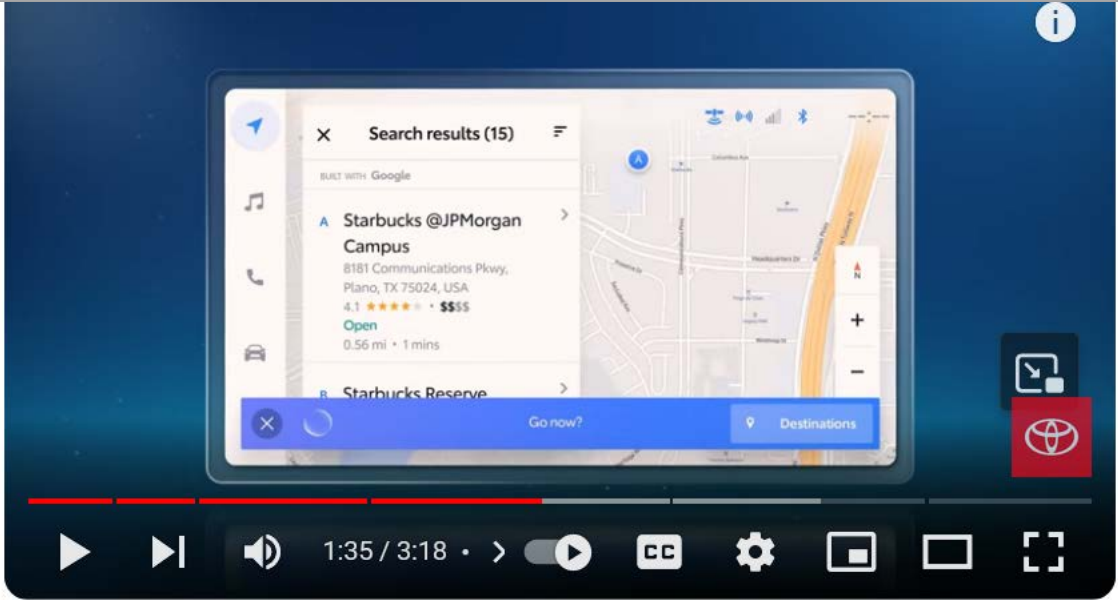
Claim 20	Toyota Accused Instrumentalities
systems, physical mechanical and electrical systems, seat mechanical systems, mirror systems, alarm systems, battery systems, battery, lighting systems, an application shared by mobile a device present and paired with the vehicle for providing at least one interface in a display screen of the vehicle, or vehicle electronics system.	See Toyota, Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, at https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20User%20Profile%20/52cdcfa0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023; see also Toyota Newsroom, Toyota Motor North America Introduces Next-Generation Multimedia System To Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/: • User Profiles– To help improve the user’s overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. Additionally, the systems of the vehicle are configured to receive input or cause one or more actions or functions. A User Profile may be applied to a vehicle after Toyota’s server has processed user information to verify the user for accessing the profile associated with the user account, for example, after the user enters a PIN, which is confirmed by the vehicle communication module’s communications with a Toyota server. As another example, if a user links a preferred identification device with their User Profile, Toyota uses vehicle embedded hardware and software to relay communications between the device and the server, using device identifier data assigned to a user’s device to verify the user for accessing the profile associated with the user account. See, e.g.:

Claim 20	Toyota Accused Instrumentalities
	To load your saved profile, select 'Settings' (gear icon) within the menu there is a list of 'Saved profiles' to select from. Select the desired profile for the Driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. A banner will confirm that your profile has been successfully loaded to the multimedia system. You can also Link your preferred identification device to automatically load your saved profile. For assistance on how to Link your preferred identification device please visit our Audio & Connected Services Support tool or reference your Owner's Manual. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US; As shown below, for example, the systems include such systems as a door lock and an engine start/shut switch. On select model year 2022 and newer vehicles are equipped with the User Profile feature. You can link a smartphone or smart key / key fob to identify your saved profile automatically when detected by your vehicle. To link a Smartphone to your profile, select 'Settings' (gear icon), then 'Personal info' and 'Link devices'. Continue following the instruction on the display to complete. To link a smart key / key card to your profile, select 'Settings' (gear icon), then 'Personal info' and enable the 'Link key' while your smart key / key card is in the vehicle with you. Note: Your User Profile is associated with your Digital Key and allows your profile to be loaded automatically. No further setup required. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US; <i>see also</i>

Claim 20	Toyota Accused Instrumentalities
	https://support.toyota.com/s/article/How-do-I-use-the-Digital-Key-features-Toyota?language=en_US: How do I use the Digital Key features? To use the Digital Key after setup, log into your Toyota app and ensure your smartphone Bluetooth is turned ON and has a network connection. • Touch the door handle to unlock the vehicle • Press the brake and push the 'Start' button to start the engine • Touch the door handle to lock the vehicle As shown below, for example, the systems include such systems as a heating and cooling system, a speaker, a user interface, and a GPS system.

Claim 20	Toyota Accused Instrumentalities
	The transcribed command text is then processed by Toyota Connected's machine learning models in the cloud – what is the intent of the words being used, from audio commands to windshield wipers or even finding a five-star-rated burger restaurant nearby. From there, it's fed back to the vehicle where notes are compared between the embedded and cloud voice assistants to ensure the car is most accurately executing the command the user actually wants. "This is where the Toyota Connected magic comes in," Oehler said.

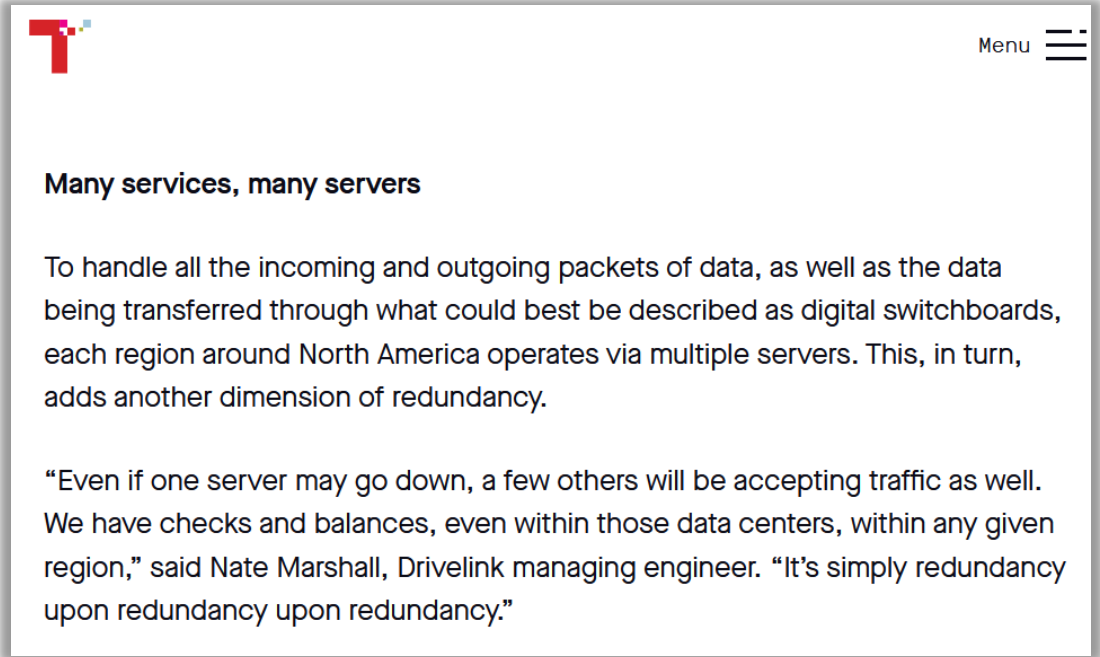
Claim 20	Toyota Accused Instrumentalities
	First up, the computer determines top-line intent – temperature, audio, navigation, etc. Then comes sub-intent – specific temperature, a song or that ice cream shop that always seems to hit the spot. If it’s a music request for a new J-Pop song, and you’re already listening to your favorite streaming platform, the head unit will attempt to find the song on that platform. If it’s not there, it will switch to the next best option, such as satellite radio. The system is constantly getting smarter, looking at accuracy and tweaking commands to add more ways to ask for specific functions. The new infotainment technologies that have brought forth the Intelligent Assistant made their way to the Lexus NX, LX, and Toyota Tundra for 2022 but are already being introduced in more models for 2023 in North America. As it proliferates to more models, the speed of the machine learning system’s ability to, well, learn will only accelerate. https://pressroom.toyota.com/toyotas-new-in-house-intelligent-assistant-learns-voice-commands-and-gets-smarter-over-time/; <i>see also</i> https://www.youtube.com/watch?app=desktop&v=kiPysxvkmOU:

Claim 20	Toyota Accused Instrumentalities
	 How To: Intelligent Assistant on Toyota's New Audio Multimedia System Toyota Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 21	Toyota Accused Instrumentalities
21[pre] 21. A cloud-based system including one or more data centers, and each data center of the cloud-based system includes one or more servers, wherein some of said one or more servers have program instructions for enabling connections with vehicles and providing services to vehicles, wherein one service includes enabling access to settings associated with profiles of user accounts of the cloud-based system, comprising:	To the extent the patent is corrected to include allowed claim 21, the Accused Instrumentalities would satisfy the required claim elements of claim 21, as set forth below. The Accused Instrumentalities include all servers⁵ that are associated with implementing any connected service for Toyota and Lexus. Whether Toyota or Lexus-branded, the accused functionalities of the Toyota Accused Instrumentalities operate in the same manner for purposes of this patent. Product documentation reflects the interchangeability of the Accused Instrumentalities as between Toyota and Lexus brands.⁶ Whether or not this preamble is considered to be limiting, Toyota’s connected services offerings are implemented in a cloud-based system including one or more data centers, and each data center of the cloud-based system includes one or more servers (e.g., one or more of the Accused Server Instrumentalities). By way of example, the Accused Instrumentalities are included within and/or constitute one or more data centers. At least some of the one or more servers have program instructions for enabling connections with vehicles (e.g., Toyota’s Toyota or Lexus-branded vehicles) and providing services (e.g., Connected Services^[1] such as Remote Connect or Drive Connect services to enable access to User Profiles). For example, Toyota, through the manufacture, offer of sale, and sale of vehicles equipped with hardware and software enabling User Profile functionality, as well as Toyota applications, e.g. the Toyota app, and supporting infrastructure, e.g. cloud servers and data centers, uses and benefits from the recited system for setting and transferring user profiles to vehicles as set forth in claim 21. See, e.g., Toyota Connected, Insights, How Toyota Connected Built Stability into Its Drivelink Telematics Services Platform, at https://www.toyotaconnected.com/insights/drivelink-stability:

⁵ A “server” or “servers,” whether used in the singular or plural in the charts herein, applies to one server or multiple servers.

⁶ See, e.g., Lexus Support, <https://support.lexus.com/s/article/If-I-own-a-Lexus-and-10451>; Lexus Support, https://support.toyota.com/s/article/If-I-own-a-Toyota-and-10534?language=en_US; Lexus, Privacy Rights, <https://www.lexus.com/privacy>; Lexus Connect Services Privacy Statement, <https://www.lexus.com/privacyvts>.

Claim 21	Toyota Accused Instrumentalities
	 The screenshot shows a Toyota Newsroom article. At the top left is the Toyota logo, and at the top right is a 'Menu' button with a hamburger icon. The article title is 'Many services, many servers'. The text describes how Toyota handles data redundancy across North America, mentioning digital switchboards and multiple servers per region. It includes a quote from Nate Marshall, Drivelink managing engineer, stating that redundancy is a key feature of their system. <i>And see, e.g.,</i> Toyota Newsroom, Innovation, Toyota Motor North America Introduces Next-Generation Multimedia System to Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/:

Claim 21	Toyota Accused Instrumentalities
	In the age of digital transformation in mobility, having a more personalized experience that moves from vehicle to vehicle with the driver is essential. Through the new multimedia system's User Profile feature, the driver's personalized settings and experience, from preferred media or radio station to climate settings in some models, will be retained and accessible when the driver next returns to the vehicle. ... • User Profiles– To help improve the user's overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. See also Automotive News, Toyota builds up its data center in search of opportunities (July 10, 2017), at https://www.autonews.com/article/20170710/OEM06/170719963/toyota-s-cloud-city Toyota uses the vehicle's factory installed telematics system and factory-installed data communication module ("DCM") to communicate stored User Profile data among Toyota's server, the multimedia system of the User Profile-associated vehicle, and a linked identification device, such as a smart phone or smart key. See Toyota Connected Services Terms of Use, Effective March 7, 2023, at 1-2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf. The DCM is an embedded cellular device which enables wireless/GPS technology and allows Toyota to collect data from the user and the user's vehicle. See

Claim 21	Toyota Accused Instrumentalities
	<i>id.</i> The telematics system uses digital wireless telecommunications technology and GPS technology to enable Toyota Connected Services and Toyota-installed software via third party wireless networks, satellites, and related infrastructure. <i>See id.</i> at 2, 8; <i>and see</i> Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Types of functions, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.ibo1649038197243: <i>See also</i> Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Functional overview, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.fgi1649038197149:

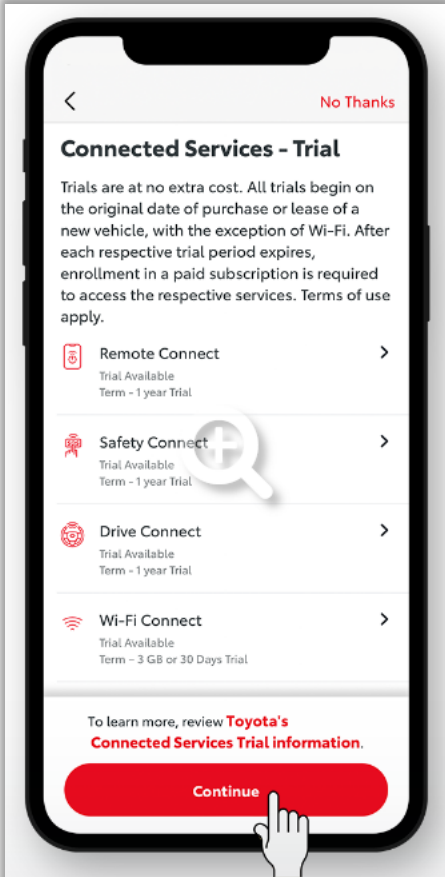
Claim 21	Toyota Accused Instrumentalities
	Type A: Function achieved by using DCM and the system PREVIOUS SECTION < Before using the function The functionality of User Profile, Drive Connect (Cloud Navigation, Intelligent Assistant, Destination Assist), Wi-Fi Connect (Wi-Fi Hotspot, Integrated Streaming) is made possible through the shared work of the DCM and the system. These services are available by subscription on select, telematics hardware- equipped vehicles and supported by the Toyota, which operates 24 hours a day, 7 days a week. For details about: - User Profile: Registering a user profile - Intelligent Assistant: Using the Intelligent Assistant system - Cloud Navigation: Cloud navigation - Destination Assist: Destination Assist - Integrated Streaming: Playing Integrated Streaming - Wi-Fi Hotspot: Setting Wi-Fi Hotspot NEXT SECTION Type B: Function achieved by using DCM > Toyota further uses and benefits from the system of claim 21 by providing Toyota Connected Services with User Profile capability, such as Remote Connect and Drive Connect. Toyota provides User Profile access to users who agree to Toyota’s provision of Connected Services and Terms of Use, for example, via a Trial Service Plan or Standard Service Plan. Such Connected Services are included as a trial subscription service plan to all or some Connected Services as part of the purchase price of select vehicles, as well as Connected Services Subscription Plans with User Profile capability, such as the Music Lover, Go Anywhere, and Premium subscription plans. See, e.g., Toyota Support Home, Subscription Plans, at https://support.toyota.com/s/article/Subscription-Plans?language=en_US.

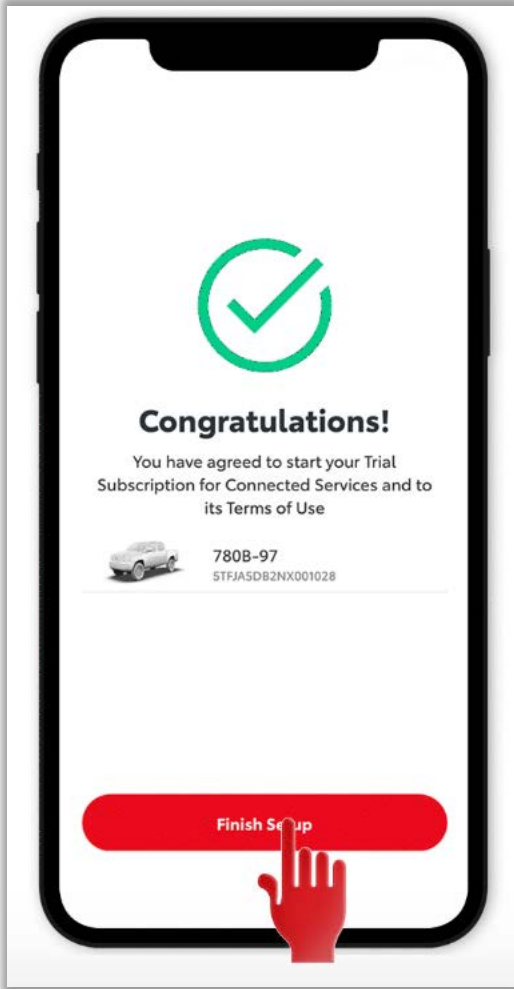
Claim 21	Toyota Accused Instrumentalities
	Before using the function PREVIOUS SECTION < Types of functions Subscription - After you have accepted the Connected Services Agreement (Connected Services Terms of Use and Connected Services Privacy Notice) on the Toyota App when you register the vehicle to your account, you can begin receiving services. A variety of subscription agreements are available. Contact your Toyota dealer, or call 1-800-331-4331 in the United States, 1-877-855-8377 in Puerto Rico, or 1-888-869-6828 in Canada. NEXT SECTION Type A: Function achieved by using DCM and the system > Availability of function(s) These functions are not made available in some countries, areas, or on some models.

Claim 21	Toyota Accused Instrumentalities
	What is a User Profile? A User Profile is created when you register an account within the Toyota app. Used on select model year 2022 & newer vehicles, User Profile allows for you & other drivers of the vehicle to customize their driving experience. Personalized settings and preferences stored in your profile are accessed when the vehicle recognizes the profile using any one of the identification devices supported. Conveniently save a total of three (3) User profiles to a vehicle, one (1) Primary Driver & two (2) additional User Profiles. Each is tailored to their individual preferences and settings. The multimedia system in the vehicle first detects your profile when your Toyota app is open and signed in, and Bluetooth® is enabled on your smartphone. Once your profile is saved to the vehicle's multimedia system it can be linked to your mobile phone or smart key fob so it is detected automatically when you enter the vehicle. For additional assistance with User Profile, please visit our Audio & Connected Services Support Tool or reference your Owner's Manual. ... <i>Use only if aware of circumstances surrounding vehicle and it is legal and safe to do so (e.g., do not remotely start engine if vehicle is in an enclosed space or vehicle is occupied by a child). Toyota Digital Key depends on factors outside of Toyota's control, including an operative Bluetooth capable smart device, without which system functionality and availability may be limited or precluded. Service may vary by vehicle and region. Registration and Toyota app download required. Subscription required after trial. Terms of Use apply. Data charges may apply. Services subject to change at any time without notice. See usage precautions and service limitations in the Toyota Owner's Manual for additional details. To learn about Toyota's data collection, use, sharing and retention practices, please visit https://www.toyota.com/privacyvts/.</i>

Claim 21	Toyota Accused Instrumentalities
	See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US. Toyota App User Profile Eligibility <i>Which vehicles are equipped with a User Profile feature?</i> The User Profile capability is available on select model year 2022 and newer vehicles. You can review your vehicles features and capabilities within the Toyota app or refer to your Owner's Manual. You can review your vehicle's Connected Services within the Toyota app or for assistance on how to subscribe to Connected Services please visit our Audio & Connected Services Support tool. <i>The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Toyota is under license. A compatible Bluetooth enabled phone must first be paired. Phone performance depends on software, coverage and carrier.</i> <i>Use only if aware of circumstances surrounding vehicle and it is legal and safe to do so (e.g., do not remotely start engine if vehicle is in an enclosed space or vehicle is occupied by a child). Toyota Digital Key depends on factors outside of Toyota's control, including an operative Bluetooth capable smart device, without which system functionality and availability may be limited or precluded. Service may vary by vehicle and region. Registration and Toyota app download required. Subscription required after trial. Terms of Use apply. Data charges may apply. Services subject to change at any time without notice. See usage precautions and service limitations in the Toyota Owner's Manual for additional details. To learn about Toyota's data collection, use, sharing and retention practices, please visit https://www.toyota.com/privacyvts/.</i>

Claim 21	Toyota Accused Instrumentalities
	See Toyota, Support Home, Toyota App User Profile Eligibility, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10736?language=en_US. The image shows a smartphone screen displaying the Toyota app interface. At the top, it says 'Stay connected wherever you go' with a clock and user icon. Below this is a section with three car images and an 'Add a Vehicle' button. Further down is a 'Rentals' section with a magnifying glass icon, the text 'Rent a Toyota', 'Find your favorite vehicle to rent', and a 'Make a Reservation' button. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://connectedtechnologiestoyota.com/toyota/feature/Toyota%20App/c0dafef0-1bde-11ec-b8cc-7df09d7dbdc2?model=&year=null; see <i>id.</i>:

Claim 21	Toyota Accused Instrumentalities
	 <i>And see id.:</i>

Claim 21	Toyota Accused Instrumentalities
	

Claim 21	Toyota Accused Instrumentalities
	2. SERVICE REQUIREMENTS; SERVICE PROVIDERS; LIMITATIONS; APP (a) To obtain Services: (i) your Vehicle must contain a factory installed telematics system (the “System”) – see Section 11(a) for more details; (ii) your Vehicle must include the software installed by or on behalf of Toyota with all updates made available to you by Toyota (whether such update installed by you, Toyota or a dealer) (collectively, the “Software”) – for more details, see the EULA referenced in Section 1(b) above; (iii) the DCM must be on/active and properly functioning; and (iv) you must have an active Service Plan as provided under Section 3(b) below. (b) Service Plans. Certain new Vehicles come with a trial subscription Service Plan to all or some Services (“Trial Service Plan”). For all other Vehicles, you can obtain the Services by subscribing to an available monthly, annual, or other Service Plan via the App or Website, by contacting us or through other options we may make available to you from time-to-time (“Standard Service Plan”). Unless otherwise noted, all references to “Service Plan” refer to both a Trial Service Plan and Standard Service Plan. You may terminate your Service Plan as provided in Section 7 below. We may terminate your Service Plan or any of the Services at any time as provided in Section 8 below. (i) <i>Trial Service Plans.</i> A Trial Service Plan includes any of the Services included in the price of your Vehicle, whether or not labelled as “Trial”. The duration of your Trial Service Plan, along with the Services available through the Trial Services Plan, will vary by Vehicle and available options. See Toyota Connected Services Terms of Use, Effective March 7, 2023, at 2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf; and see, e.g., Toyota, 2023 Audio Multimedia & Connected Services, Feature Applicability, at https://www.toyota.com/content/dam/toyota/audio-multimedia/pdf/new/MY23_Connected_Services_and_Audio_Multimedia_features-Applicability.pdf:

Claim 21

Toyota Accused Instrumentalities

2023
Audio Multimedia & Connected Services
Feature Applicability

Connected Services Plans

		Connected Services ¹		
		Remote Connect ^{2,5} Start, lock/unlock your doors and more	Integrated Streaming Access to your Apple Music® and Amazon Music™ accounts	Drive Connect ⁷ Cloud Navigation, Intelligent Assistant, and Destination Assist
Music Lover \$15/Month	✓	✓	X	
Go Anywhere \$15/Month	✓	X	✓	
Premium \$25/Month	✓	✓	✓	

OPTIONAL ADD-ON

Wi-Fi Connect
\$25/Month via AT&T

Connected by AT&T. Wi-Fi Connect is your gateway to keeping up with important information while on the go. Easily connect up to five devices at 4G LTE speeds.

*No restriction on data consumption for Integrated Streaming for customers who purchase the Music Lover or Premium Plan.

Additionally, Toyota uses and benefits from the system of claim 21 through Toyota’s servers that are used to implement Toyota’s collection of User Profile data, which (1) Toyota itself uses to provide, offer to sell, and sell other Toyota services and products, (2) Toyota shares with third parties, (3) Toyota sells to third parties, and (4) Toyota itself uses to create its Mobility Services Platform feature (“MSPF” or “MSP”). Examples include Toyota’s sales of User Profile data to third parties who offer services to the user and/or for their own marketing purposes, Toyota’s sharing of profile data with third parties who offer their services to the user and/or for their own marketing purposes, Toyota’s sharing of profile data for targeted advertising, and

Claim 21	Toyota Accused Instrumentalities
	Toyota’s own use of User Profile data to offer or sell additional services and products to the user. <i>See</i> Toyota, Your Privacy Rights, at https://www.toyota.com/support/privacy-notice/. For example, Toyota Connected advertises itself as a company which uses “big data collected from vehicles and analyzed on a cloud platform” to “humanize the driving experience by providing customers secure, seamless and contextual services, elevating the customer experience while benefiting dealers, distributors, and partners”: About Toyota Connected, Inc. Based in Plano, Texas, Toyota Connected North America (TCNA) was established in 2016 to drive Toyota's global efforts for an intelligent mobile society. With big data collected from vehicles and analyzed on a cloud platform, Toyota Connected humanizes the driving experience by providing customers secure, seamless and contextual services, elevating the customer experience while benefiting dealers, distributors, and partners. At the heart of TCNA is Toyota's belief in human-centered mobility and a fundamental commitment to personal privacy. <i>See</i> Toyota Connected, Toyota Connected Leverages Twilio to Build A Faster and More Responsive ‘Drivelink’ Experience, at https://toyotaconnected.com/insights/drivelink-experience.

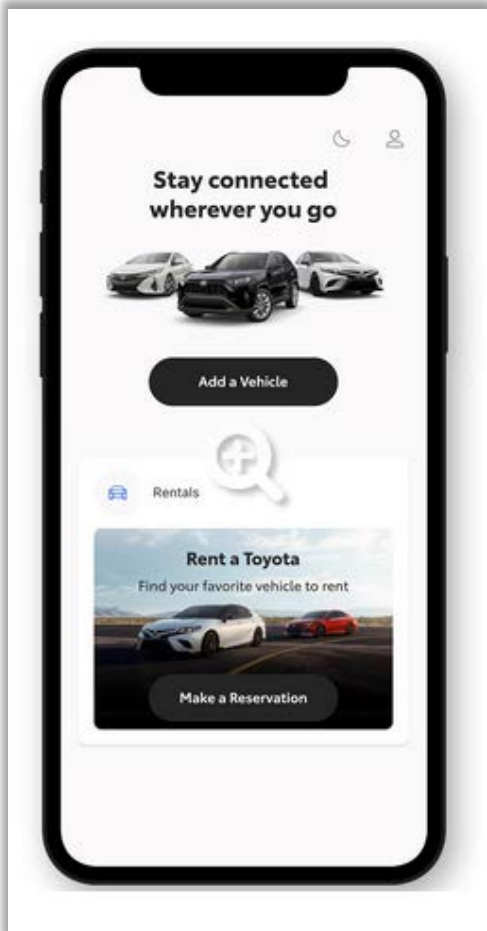
Claim 21	Toyota Accused Instrumentalities
	Toyota utilizes Connected Services to collect data from connected vehicles, and Toyota creates “new value” for the company by utilizing these data to deliver additional Toyota products and services and promote collaborations with third party service providers. So significant is the value of data collected from connected vehicles, “Toyota is working towards having all of its vehicles become connected vehicles”: To date, Toyota has sold 20 million Lexus and Toyota vehicles that are connected cars, mainly in Japan, the United States, Europe, and China. Toyota’s vision of the connected car is not simply one of connecting the car to the internet. Rather, it is about providing customers with emotional experiences through the movement of people, goods, and activities — a vision centered on people that we call “human connected.” To achieve this, we are operating a call center as a point of contact with customers; the Toyota Smart Center, which provides a variety of services; and the Toyota Big Data Center, which utilizes vehicle information gathered from cars. In addition, we have established the Mobility Service Platform (“MSPF”) to provide mobility services and are promoting collaboration with service providers. Connected cars and connected technologies will be applied to a variety of areas, and we anticipate that which is to be connected will expand to include people, cars, communities, and society (business-to-society, or BtoS). Toyota will handle the information gathered from customers and vehicles with care, utilizing it for the happiness of customers and the development of society while creating new value from experiences centered on mobility. ... through the purchase of installment and lease contracts originated by Toyota dealers. Related to Toyota’s automotive operations, Toyota is working towards having all of its vehicles become connected vehicles, creating new value and reforming businesses by utilizing big data obtained from those connected vehicles, and establishing new mobility services. Toyota’s all other operations business segment includes the information technology related businesses including a web portal for automobile information called GAZOO.com. See United States Securities and Exchange Commission, Toyota Motor Corporation, Form 20-F, June 30, 2023, at https://app.quotemedia.com/data/downloadFiling?webmasterId=90423&ref=317596090&type=PDF&symbol=TOYOF&cdn=01303c2712e9b793c3df5155e787e8e1&companyName=Toyota+Motor+Corporation&formType=20-F&formDescription=Annual+and+transition+report+of+foreign+private+issuers+%5BSections+13+or+15%28d%29%5D&dateFiled=2023-06-30. Toyota’s use, sharing, and sale of User Profile data includes the sharing and sale of User Profile data with/to third party service providers, such as insurance companies, rental car companies, car-sharing companies, mobile retailers, etc. Moreover, Toyota’s collection, use and transfer of User Profile data is used to create Toyota’s Mobility Services Platform, as depicted in the graphic below.

Claim 21	Toyota Accused Instrumentalities
	See IEEE, Connected & Autonomous Vehicles, Toyota establishes a Mobility Services Platform and announces collaboration with a car-sharing company, at https://site.ieee.org/connected-vehicles/2016/10/31/toyota-establishes-mobility-services-platform-announces-collaboration-car-sharing-company/. Toyota operates “its cloud data center for big data collected from connected cars” and is developing “new mobility services that utilize integrated vehicle connectivity and big data”:

Claim 21	Toyota Accused Instrumentalities
	In the automotive industry, the value of cars is changing significantly, due to diversification of market needs, the development of new areas such as MaaS and CASE, the entry of new industries utilizing IoT technology, and the emergence of new services such as ride sharing and car sharing. Toyota entered this era by announcing its Connected Strategy at the end of 2016. In order to accelerate MaaS initiatives, Toyota is promoting the deployment of MSPF that supports the MaaS strategy. Toyota Connected will develop MSPF and operate its cloud data center for big data collected from connected cars, which are increasing by millions each year worldwide. ... "This business alliance with NTT Data, with its open and advanced software development capabilities, will enable us to take care of accelerating the development of our TOYOTA's connected strategies. The alliance will strengthen the global structure for providing higher quality mobility services, and contribute to the creation of a thriving mobility society." said Shigeki Tomoyama, President, Toyota Connected. ... Toyota Connected, uses technology and automotive and IT know-how to create new mobility services that utilize integrated vehicle connectivity and big data. See RCR Wireless News, Toyota Connected and NTT Data to collaborate on mobility service business, April 2020, at https://www.rcrwireless.com/20200408/news/toyota-connected-ntt-data-collaborate-mobility-service-business. Toyota's "ingestion" and "analytics" of data from connected vehicles, including User Profile data, enables Toyota to "create the Mobility Service Platform[,] which "enables in turn other services":

Claim 21	Toyota Accused Instrumentalities
	“Thanks to that ingestion of data and the analytics of it, we can create the Mobility Service Platform. That is an open architecture that enables in turn other services,” he said. “You can imagine the vast quantity of information that is going through the Toyota Big Data Centers across the world. Our ability to turn this data into insights and those insights into relevant services is what we are talking about.” See Automotive Logistics, Channel[ing Big Data into Connected Services at Toyota, at https://www.automotivelogistics.media/digital-technology/channelling-big-data-into-connected-services-at-toyota/37898.article. For example, Toyota’s collection of User Profile data is used by Toyota to offer additional Toyota services, such as Navigation services. • Navigation. Your vehicle’s <i>navigation</i> feature (such as Drive Connect) allows you to choose a place of interest, a location on a map, one of your favorites, a destination from your history, or enter an address or coordinates (latitude and longitude). In certain vehicles, navigation includes the Destination Assist program, which connects you with a live agent to provide navigation directions. Your vehicle’s Location Data, Profile Data (such as in-vehicle preferences, favorites, and usage history), and your Account Information are used to verify your account and to offer these features. See Toyota Privacy Notice, Connected Services, Intro, at https://www.toyota.com/privacyvts/. As another example, Toyota shares User Profile data with insurance companies, enabling such third-party insurers to make sales offers to users.

Claim 21	Toyota Accused Instrumentalities
	“Toyota’s Connected Services provide value to customers by offering them unprecedented convenience and peace of mind,” said Steve Basra, group vice president of Connected Technologies at Toyota Motor North America. “Using the latest technologies, we’re able to provide more features and safety resources than ever before. We work with CAS to empower interested customers to use their driving data to obtain potential insurance savings. It’s a great example of how new technology can benefit customers in ways never before possible.” See Toyota Pressroom, Toyota Expands Partnership with Connected Analytic Services, at https://pressroom.toyota.com/toyota-expands-partnership-with-connected-analytic-services/. Toyota further uses and benefits from the system of claim 21 through Toyota’s servers that are used to implement Rent a Toyota service and platform, wherein Toyota’s collection and transfer of User Profile data enable Toyota’s provision of services and sales to “Rent a Toyota” customers. For example, when a user registers a User Profile with Toyota, the Toyota app dashboard advertises to the user the ability to add a vehicle or “Rent a Toyota” vehicle:

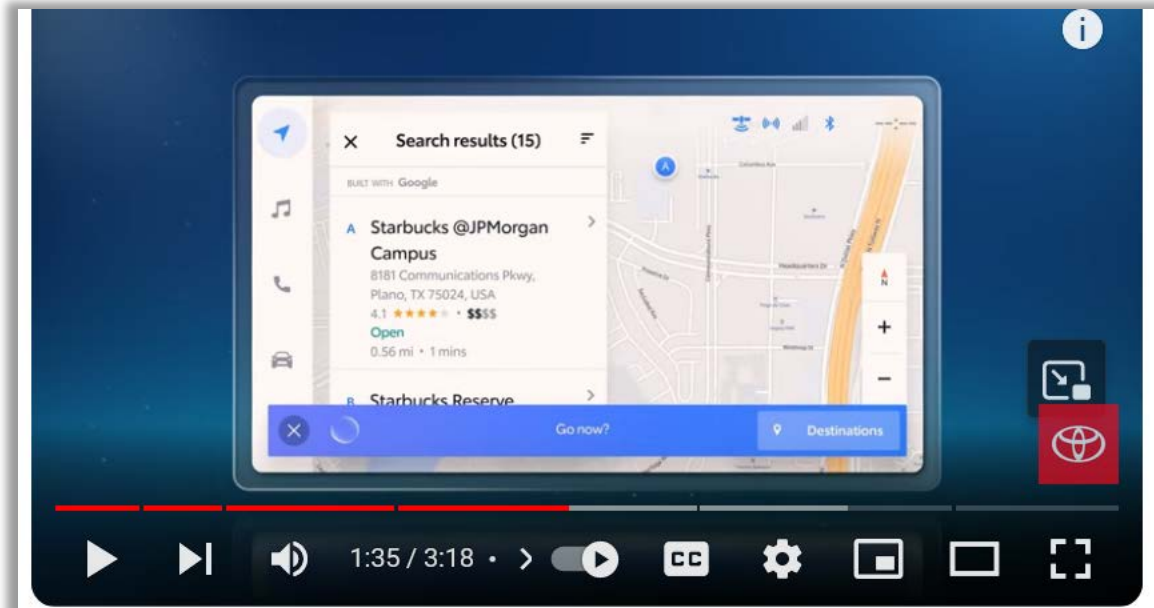
Claim 21	Toyota Accused Instrumentalities
	 See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://connectedtechnologiestoyota.com/toyota/feature/Toyota%20App/c0dafef0-1bde-11ec-b8cc-7df09d7dbdc2?model=&year=null; see also Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, at

Claim 21	Toyota Accused Instrumentalities
	https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20User%20Profile%20/52ba95c0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023. Toyota’s Rent a Toyota service uses User Profile data from Rent a Toyota customers, <i>inter alia</i>, “to provide Connected Services and for internal research and data analysis.” Toyota Rent a Toyota further uses User Profile data for “navigation assistance and to activate remote services.” Profile: What information is required in my Toyota app profile? If you have already accessed the Toyota app, your profile is already setup. To complete a rental reservation in the Toyota app, you will need to provide valid driver details. You also have the option to upload your driver’s license and insurance information to save time at the counter.

Claim 21	Toyota Accused Instrumentalities
	Profile and Security: 1. Is the rental vehicle equipped with connected services? If so, how are they used? Toyota Connected Services Privacy and Protection Notice. Your rental vehicle may wirelessly transmit location, driving, and vehicle health data to provide Connected Services and for internal research and data analysis. Connected Services include the use of this vehicle data to respond to emergencies, navigation assistance, and/or to activate remote services. We also collect and use your personal information to facilitate your usage of Connected Services, fulfill your requests, and to manage our relationship with you. To learn more, please visit www.toyota.com/privacyvts. See Toyota, Rent a Toyota, FAQ, at https://www.toyota.com/rental/faq.html. As shown below, for example, one or more servers have program instructions for enabling connections with vehicles and providing services to vehicles, including enabling access to settings associated with profiles of user accounts of the cloud-based system including settings such as “[m]ultimedia settings like navigation, audio and volume.” User Profile settings are “automatically saved to the current profile when they are changed[,]” “[r]egistered profiles are saved in the cloud[,]” “[b]y using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle[,]” and “changing some multimedia

Claim 21	Toyota Accused Instrumentalities
	settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears.” User profiles Multimedia settings for each driver can be saved and the applicable driver can load them when driving the car. ● Up to three user profile can be registered. ● Multimedia settings like navigation, audio and volume can be saved in a profile. ● Settings are automatically saved to the current profile when they are changed. ● Search history, individual settings, and other private information can be protected by setting up a profile. ● By registering a Bluetooth® device that identifies the driver, such as a smartphone, the profile is automatically loaded when getting in the vehicle.

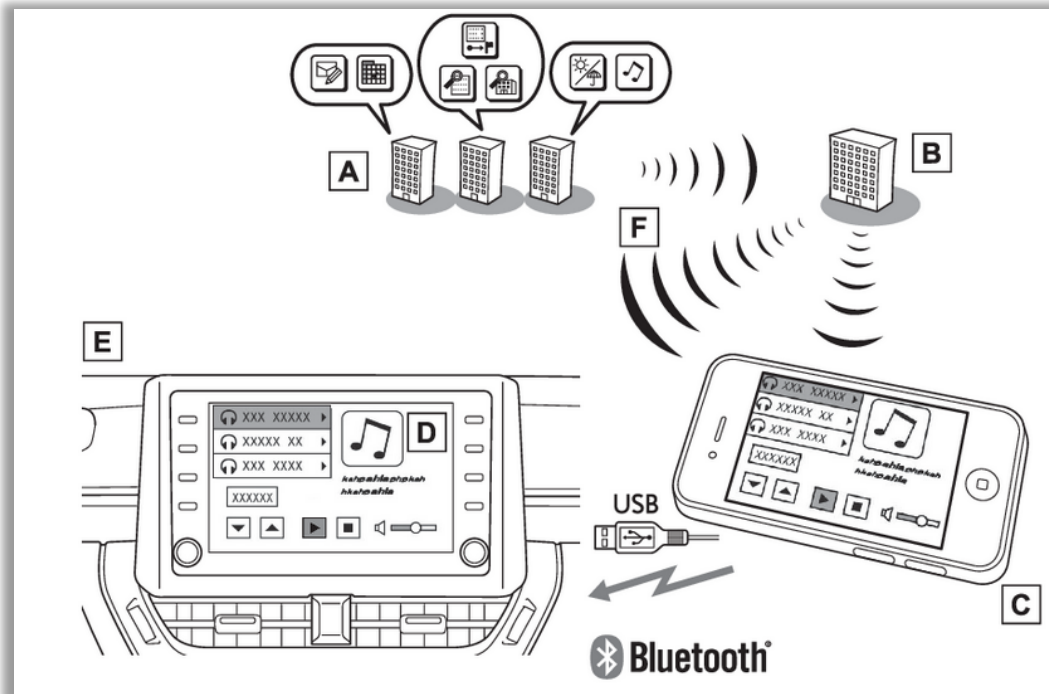
Claim 21	Toyota Accused Instrumentalities
	■ Linking to a Toyota account ● An active Toyota account is required to use a profile. ● Registered profiles are saved in the cloud, so even if a profile is deleted in the vehicle, it is not deleted from the cloud. ● By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle. ● The driver who is registered as the owner can delete all drivers registered in the vehicle. Drivers who are not the vehicle owner cannot delete the owner's profile. ● The same profile cannot be used in another vehicle at the same time. ... 2-1. Multimedia system initial setup ● Changing some multimedia settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears. ● User profile portability from vehicle to vehicle may not be available in the regions other than the U.S. 48 States. Toyota, Mirai 2023 Multimedia Owner's Manual, at 50-51, at https://assets.sia.toyota.com/publications/en/omnav-s/OM62112U/pdf/OM62112U.pdf

Claim 21	Toyota Accused Instrumentalities
	Toyota's cloud-based system includes one or more servers, wherein some of said one or more servers have program instructions for enabling connections with vehicles and providing services to vehicles, wherein one service includes enabling access to settings associated with profiles of user accounts, for example, access to settings through Toyota's Intelligent Assistant. As instructed in the video below, Toyota's "Intelligent Assistant goes a step further than Toyota's standard voice assistant feature by relying on machine learning AI for a smart, personalized experience. ...For example, Intelligent Assistant works great with cloud navigation. ...Intelligent Assistant can also be used for music. ...If you're curious about what's playing, just ask 'what track is playing?' And if it's a song you love, you can say, 'play more music like this.'"  How To: Intelligent Assistant on Toyota's New Audio Multimedia System Toyota

Claim 21	Toyota Accused Instrumentalities
	https://www.youtube.com/watch?app=desktop&v=kiPysxvkmoU Toyota’s Intelligent Assistant “utilize[es] learned user data stored in the cloud” and “cloud content is constantly kept up-to-date in the Toyota server,” and “changing some multimedia settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears.” The Intelligent Assistant allows the customer with the following enhancements: ● Enhanced Voice Recognition / Natural Language Understanding Improved voice performance by utilizing both in-vehicle and cloud-based voice recognition. ● Personalized experience Offers a unique experience catered to the particular user by utilizing learned user data stored in the cloud. ● Up-to-date information Cloud content is constantly kept up-to-date in the Toyota server, so there is no need to visit dealer for a data update. Toyota, Mirai 2023 Multimedia Owner’s Manual, at 39, 50-51, at https://assets.sia.toyota.com/publications/en/omnav-s/OM62112U/pdf/OM62112U.pdf Whether or not this preamble is considered to be limiting, the Toyota Accused Instrumentalities are configured to use the system of claim 21, including by a server of a cloud-based system configured to have program instructions for enabling connections with vehicles and providing services to vehicles, wherein one

Claim 21	Toyota Accused Instrumentalities
	service includes enabling access to settings associated with profiles of user accounts of the cloud-based system. For example, Toyota Accused Instrumentalities with Connected Services⁷ are configured to communicate with a server of Remote Connect or Drive Connect services to enable access to User Profiles. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.
21[a] receiving, by one of the servers, a request from a vehicle to access a profile for a user account associated with a user, the request identifies user information related to a user;	See claim 21[pre], above. The Accused Instrumentalities receive a request from a vehicle (e.g., a Toyota or Lexus-branded vehicle) to access a profile for a user account associated with a user, the request identifies user information related to a user. As described above, Toyota’s connected vehicle’s electronics, e.g., embedded hardware and software, enable communication among the Toyota app, the user profile-associated vehicle’s multimedia system, Toyota’s server and content providers, allowing the vehicle to apply User Profile settings in the vehicle according to the user defined content. For example, communications between the multimedia system and Toyota’s server can occur via the DCM, wherein system content is “received, via a smartphone or DCM, from content provider servers is displayed on the screen.”

⁷ Toyota Connected Services include User Profile capability, such as Remote Connect and Drive Connect. Toyota provides User Profile access to users who agree to Toyota’s provision of Connected Services and Terms of Use, for example, via a Trial Service Plan or Standard Service Plan. Such Connected Services are included as a trial subscription service plan to all or some Connected Services as part of the purchase price of select vehicles, as well as Connected Services Subscription Plans with User Profile capability, such as the Music Lover, Go Anywhere, and Premium subscription plans. See, e.g., Toyota Support Home, Subscription Plans, at https://support.toyota.com/s/article/Subscription-Plans?language=en_US.



Claim 21	Toyota Accused Instrumentalities
	A Content providerProvides contents to the application server. B Application serverProvides applications to the system or a smartphone. C Smartphone *Using the Toyota mobile application, communication is relayed between the system, application server and content provider. D ApplicationsDisplay usable content from the content providers on the screen using the data connection of the connected smartphone or DCM. E SystemContent received, via a smartphone or DCM, from content provider servers is displayed on the screen. The system is equipped with an application player to run applications. F Via DCM See Toyota, 2022 Corolla Cross, Manuals and Warranties, Audio & Multimedia, Connected Services, Connected Services overview, Type A: Function achieved by using a smartphone or DCM, at https://www.toyota.com/owners/resources/warranty-owners-manuals.corolla-cross.2022.digital.om0a012u.ch07se010402; and see, e.g., Toyota, 2022 Highlander Hybrid, Manuals and Warranties, Audio & Multimedia, Connected Services, Connected Services overview, Type A: Function achieved by using a smartphone or DCM, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander-hv.2022.digital.om0e140u.ch09se010402. Toyota’s connected vehicles, embedded with a DCM and telematics system, can detect Toyota User Profiles, for example, detecting User Profiles associated with Toyota app users in the vehicle’s vicinity.

Claim 21	Toyota Accused Instrumentalities
	HOME / SUPPORT TOPICS / TOYOTA APP Your Toyota User Profile should now be displayed under "Detected Profiles." To load your profile, select your "name." The User Profile name matches the first and last name you entered when registering for the Toyota App. Note: Multiple Toyota User Profiles may be detected by the Audio Multimedia system if there are other Toyota app users in the vehicle's vicinity. Make sure to choose the correct profile name you wish to load. See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20App/af779a10-bbf7-11ec-9c26-bda36a4d479f?model=&year=null. To load a desired user profile to a vehicle's multimedia system, Toyota's server receives a request from the vehicle to access the desired profile, and the request identifies user information for a user to use the vehicle.

Claim 21	Toyota Accused Instrumentalities
	For example, the user can opt to save user profile data to a cloud server. Once the vehicle detects available Toyota User Profiles in the vehicle's vicinity, the user can select the desired profile and use a profile PIN to validate the profile. See Toyota, Support Home, Can I still use my profile if I don't want to save it to the vehicle?, at https://support.toyota.com/s/article/Can-I-still-use-my-profile-if-I-don-t-want-to-save-it-to-the-vehicle?language=en_US: Can I still use my profile if I don't want to save it to the vehicle? Yes. Your profile may be detected and loaded for use within the multimedia system without saving it. Once the profile is detected, the multimedia will display a message with the option to select "Settings." Within the menu there is a list of "Detected profiles" to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to "Save profile." If you do not wish to save the profile to the multimedia system, simply select "Do not save" when prompted. The Profile will no longer appear on the multimedia system after ACC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle. For additional assistance with User Profile please visit our Audio & Connected Services Support Tool or reference your Owner's Manual. As shown below, "[c]hanging the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears."

Claim 21	Toyota Accused Instrumentalities
	2-1. Multimedia system initial setup ● The driver who is registered as the owner can delete all drivers registered in the vehicle. Drivers who are not the vehicle owner cannot delete the owner's profile. ● The same profile cannot be used in another vehicle at the same time. ● Changing the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears. See Toyota 2023 bZ4X Multimedia Owner's Manual (OM42D77U), at 48-49, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf. The User Profile, saved to the cloud, "is constantly kept up-to-date in the Toyota server[.]" See <i>id.</i> at 37:

Claim 21	Toyota Accused Instrumentalities
	The Intelligent Assistant allows the customer with the following enhancements: ● Enhanced Voice Recognition / Natural Language Understanding Improved voice performance by utilizing both in-vehicle and cloud-based voice recognition. ● Personalized experience Offers a unique experience catered to the particular user by utilizing learned user data stored in the cloud. ● Up-to-date information Cloud content is constantly kept up-to-date in the Toyota server, so there is no need to visit dealer for a data update. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.
21[b] processing, by one of the servers, at least part of the user information to verify the access for the user, the profile	See claim 21[pre], and claim 21[a], above. The Accused Instrumentalities process at least part of the user information to verify the access for the user, the profile having a plurality of settings of the user for the vehicle, wherein at least part of the plurality of settings of the profile being stored on cloud storage accessible to said one or more servers. As described above, the Toyota vehicle's embedded hardware and software enable communication between the vehicle and Toyota's server, for example, to verify user-identifying information to allow the user to

Claim 21	Toyota Accused Instrumentalities
having a plurality of settings of the user for the vehicle, wherein at least part of the plurality of settings of the profile being stored on cloud storage accessible to said one or more servers; and	access the profile associated with the user account. For example, users can access their user profile in a vehicle using a Bluetooth handheld device, such as a smartphone or a tablet, smart key, or via manual login, in order to identify and select the appropriate user profile associated with the user account. • User Profiles– To help improve the user’s overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile. See Toyota Newsroom, Toyota Motor North America Introduces Next-Generation Multimedia System To Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/. Additionally, a User Profile may be applied to a vehicle after Toyota’s server has processed user information to verify the user for accessing the profile associated with the user account, for example, after the user enters a PIN, which is confirmed by the vehicle communication module’s communications with a Toyota server. As another example, if a user links a preferred identification device with their User Profile, Toyota uses vehicle embedded hardware and software to relay communications between the device and the server, using device identifier data assigned to a user’s device to verify the user for accessing the profile associated with the user account. See, e.g.:

Claim 21	Toyota Accused Instrumentalities
	To load your saved profile, select 'Settings' (gear icon) within the menu there is a list of 'Saved profiles' to select from. Select the desired profile for the Driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. A banner will confirm that your profile has been successfully loaded to the multimedia system. You can also Link your preferred identification device to automatically load your saved profile. For assistance on how to Link your preferred identification device please visit our Audio & Connected Services Support tool or reference your Owner's Manual. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US; see also Toyota, Privacy Notice, Connected Services, at https://www.toyota.com/support/privacy-notice/:

Claim 21	Toyota Accused Instrumentalities
	• <i>Device Identifier.</i> We automatically collect your IP address or other unique identifier ("Device Identifier") for the Device (computer, mobile phone, tablet or other device) you use to access the Platforms. A Device Identifier is a number that is assigned to your Device when you access a website or its servers, and our computers identify your device by its Device Identifier. We, and our affiliates, service providers, business partners, and other parties, including authorized dealers, may use a Device Identifier to, among other things, administer the Platforms; help diagnose problems with our servers; analyze trends; track users' web page movements over time and across different websites, Platforms, or other mobile, online, or offline services; to help identify you and your shopping cart, and gather broad demographic information for aggregate use. Also, a user can link a smart key to their User Profile, according to Toyota's instructions, and Toyota uses the vehicle's embedded hardware and software, configured to relay communications with the smart key and the Toyota server, to verify the user for accessing the profile associated with the user account.

Claim 21	Toyota Accused Instrumentalities
	On select model year 2022 and newer vehicles are equipped with the User Profile feature. You can link a smartphone or smart key / key fob to identify your saved profile automatically when detected by your vehicle. To link a Smartphone to your profile, select 'Settings' (gear icon), then 'Personal info' and 'Link devices'. Continue following the instruction on the display to complete. To link a smart key / key card to your profile, select 'Settings' (gear icon), then 'Personal info' and enable the 'Link key' while your smart key / key card is in the vehicle with you. Note: Your User Profile is associated with your Digital Key and allows your profile to be loaded automatically. No further setup required. See Toyota, Support Home, Toyota App User Profile Overview, at https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US; see also Lexus, Support Home, How can I add My User Profile to a Vehicle?, at https://support.lexus.com/s/article/How-can-I-add-my-User-Profile-to-a-vehicle:

Claim 21	Toyota Accused Instrumentalities
	HOW CAN I ADD MY USER PROFILE TO A VEHICLE? 🕒 Sep 24, 2022 Your profile is initially detected by the multimedia system using your smartphone when you enter the vehicle. The Lexus app must be open and signed in, and Bluetooth® must be enabled on the smartphone. Once a profile is detected, the multimedia will display a message with the option to select “Settings.” Within the menu there is a list of “Detected profiles” to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to “Save profile” and continue. A banner will confirm that your profile has been successfully saved to the multimedia system. For more assistance with User Profile please visit our Connected Technology Support Tool or reference your Owner’s Manual. <i>The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Lexus is under license. A compatible Bluetooth enabled phone must first be paired. Phone performance depends on software, coverage and carrier.</i> Toyota uses and benefits from the system of claim 21, including the profile having a plurality of settings of the user for the vehicle, at least part of the plurality of settings of the profile being stored on storage accessible to said one or more servers. Toyota provides a plurality of cloud-stored settings of the User Profile for the vehicle, which may be selected by the user during user profile registration on the Toyota app. Examples of user profile defined settings include audio settings, cloud navigation settings, and vehicle preferences. <i>See, e.g.:</i>

Claim 21	Toyota Accused Instrumentalities
	What is a Toyota User Profile? A User Profile allows you to have a personalized cloud-stored collection of select driver preferences & settings to enhance your Toyota driving experience. ...

Claim 21	Toyota Accused Instrumentalities
	Examples of Cloud-Stored Personalized Settings: Audio Settings ▪ Radio Station Favorites ▪ Recently Played AM/FM Stations ▪ Treble/Bass/Mid Programming ▪ Music Streaming Preferences Cloud Navigation Settings ▪ Home & Work Addresses ▪ Recent Addresses ▪ Show/Hide Traffic ▪ Avoid Toll Roads ▪ Notification Preferences Vehicle Preferences ▪ Date & Time ▪ Language & Units ▪ Driver seat adjustments ▪ Heads up display settings

Claim 21	Toyota Accused Instrumentalities
	See Toyota, Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20User%20Profile%20/52cdcfa0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023. For example, Toyota’s User Profile functionality allows for three User Profiles per vehicle, wherein each of the three users can customize their own “driving positions, multimedia settings, and other vehicle settings,” including different settings allowable for the primary driver.

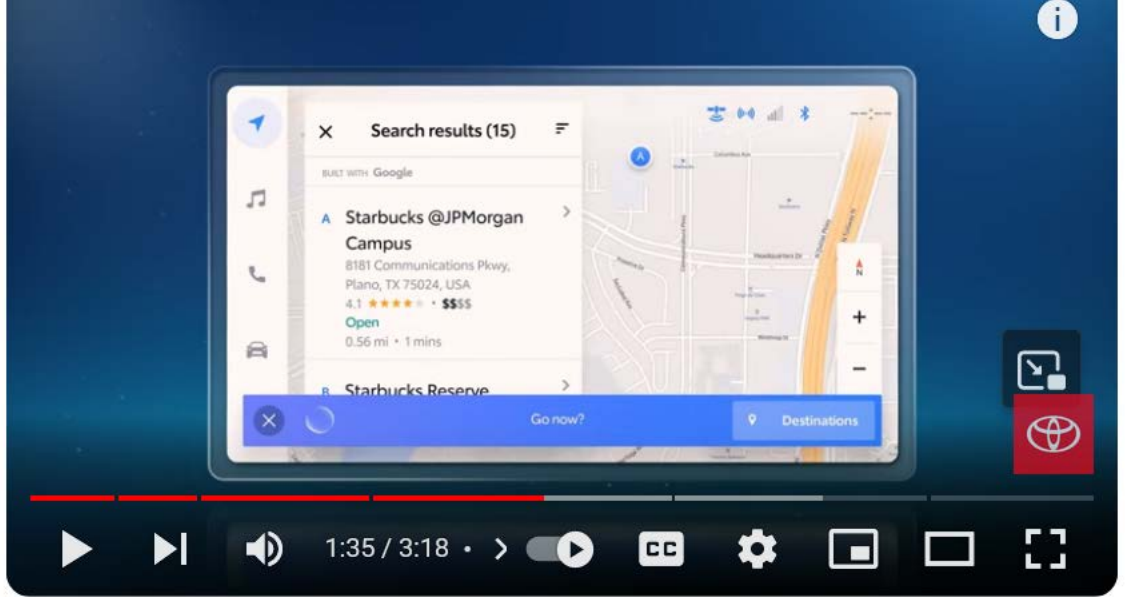
Claim 21	Toyota Accused Instrumentalities
	User profiles Driving positions, multimedia settings, and other vehicle settings for each driver can be saved and the applicable driver can load them when driving the car. ● Up to three user profile can be registered. ● The following setting information can be saved in a profile: • Some multimedia settings : Volume and tone quality, navigation system, audio, etc. • Some vehicle settings : Driving position, air conditioning, meters, etc. ● Vehicle settings are automatically saved to the current profile when they are changed. ● Search history, individual settings, and other private information can be protected by setting up a profile. ● By registering a device to identify the driver, your profile will be automatically loaded. You can select a smartphone and smart key as the device to be registered. ...

Claim 21	Toyota Accused Instrumentalities
	■ Linking to a Toyota account ● An active Toyota account is required to use a profile. ● Registered profiles are saved in the cloud, so even if a profile is deleted in the vehicle, it is not deleted from the cloud. ● By using the Toyota app and linking to a Toyota account, a profile can be loaded from the cloud in any vehicle. See Toyota, bZ4X 2023 Multimedia Owner's Manual, p. 48, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf ● The driver who is registered as the owner can delete all drivers registered in the vehicle. Drivers who are not the vehicle owner cannot delete the owner's profile. ● The same profile cannot be used in another vehicle at the same time. ● Changing the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears. ● User profile portability from vehicle to vehicle may not be available in the regions other than the U.S. 48 States. <i>Id.</i> at 49; and see <i>id.</i> at 55:

Claim 21	Toyota Accused Instrumentalities		
	<table> <tr> <td>[Saved profiles]</td><td> The user profile registered on the vehicle are displayed in a list. Touch the profile that desired to be used and enter the PIN code to change the profile. Touching [Edit] enables saved profiles to be deleted. Profiles are still stored on the cloud, preserving all settings and personalized information. Up to three user profiles can be saved on the vehicle. </td></tr> </table> See Toyota Audio & Connected Services Support, Home, BZ4X, 2023, Support Topics, Toyota User Profile, How to Create Your Profile, at https://toyotaaudioandconnectedservicesupport.com/toyota/feature/Toyota%20App/af779a10-bbf7-11ec-9c26-bda36a4d479f?model=&year=null. As shown below, for example, at least one of the above-described plurality of settings of the user for the vehicle, such as temperature, is restricted for use on the vehicle.	[Saved profiles]	The user profile registered on the vehicle are displayed in a list. Touch the profile that desired to be used and enter the PIN code to change the profile. Touching [Edit] enables saved profiles to be deleted. Profiles are still stored on the cloud, preserving all settings and personalized information. Up to three user profiles can be saved on the vehicle.
[Saved profiles]	The user profile registered on the vehicle are displayed in a list. Touch the profile that desired to be used and enter the PIN code to change the profile. Touching [Edit] enables saved profiles to be deleted. Profiles are still stored on the cloud, preserving all settings and personalized information. Up to three user profiles can be saved on the vehicle.		

Claim 21	Toyota Accused Instrumentalities
	The transcribed command text is then processed by Toyota Connected's machine learning models in the cloud – what is the intent of the words being used, from audio commands to windshield wipers or even finding a five-star-rated burger restaurant nearby. From there, it's fed back to the vehicle where notes are compared between the embedded and cloud voice assistants to ensure the car is most accurately executing the command the user actually wants. "This is where the Toyota Connected magic comes in," Oehler said.

Claim 21	Toyota Accused Instrumentalities
	First up, the computer determines top-line intent – temperature, audio, navigation, etc. Then comes sub-intent – specific temperature, a song or that ice cream shop that always seems to hit the spot. If it’s a music request for a new J-Pop song, and you’re already listening to your favorite streaming platform, the head unit will attempt to find the song on that platform. If it’s not there, it will switch to the next best option, such as satellite radio. The system is constantly getting smarter, looking at accuracy and tweaking commands to add more ways to ask for specific functions. The new infotainment technologies that have brought forth the Intelligent Assistant made their way to the Lexus NX, LX, and Toyota Tundra for 2022 but are already being introduced in more models for 2023 in North America. As it proliferates to more models, the speed of the machine learning system’s ability to, well, learn will only accelerate. https://pressroom.toyota.com/toyotas-new-in-house-intelligent-assistant-learns-voice-commands-and-gets-smarter-over-time/; <i>see also</i> https://www.youtube.com/watch?app=desktop&v=kiPysxvkmoU:

Claim 21	Toyota Accused Instrumentalities
	 How To: Intelligent Assistant on Toyota's New Audio Multimedia System Toyota Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 21	Toyota Accused Instrumentalities
21[c] transferring, by one of the servers, upon verification of the user information, one or more settings of the plurality of settings to storage of the vehicle, the transferring is configured to instruct software and hardware associated the vehicle to enable said one or more settings for use on the vehicle to customize said vehicle for the user, the request and the transferring being via wireless communication of said vehicle;	See claim 21[pre], 21[a], and 21[b], above. The Accused Instrumentalities transfer, upon verification of the user information, one or more settings of the plurality of settings to storage of the vehicle, the transferring is configured to instruct software and hardware associated the vehicle to enable said one or more settings for use on the vehicle to customize said vehicle for the user, the request and the transferring being via wireless communication of said vehicle. For example, Toyota’s server transfers one or more user profile settings to the vehicle after a user enters their profile PIN and the PIN is confirmed. See Toyota, Support Home, Can I still use my profile if I don’t want to save it to the vehicle?, at https://support.toyota.com/s/article/Can-I-still-use-my-profile-if-I-don-t-want-to-save-it-to-the-vehicle?language=en_US: Can I still use my profile if I don’t want to save it to the vehicle? Yes. Your profile may be detected and loaded for use within the multimedia system without saving it. Once the profile is detected, the multimedia will display a message with the option to select “Settings.” Within the menu there is a list of “Detected profiles” to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to “Save profile.” If you do not wish to save the profile to the multimedia system, simply select “Do not save” when prompted. The Profile will no longer appear on the multimedia system after ACC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle. For additional assistance with User Profile please visit our Audio & Connected Services Support Tool or reference your Owner’s Manual.

Claim 21	Toyota Accused Instrumentalities
	Toyota’s servers store user profile data in Toyota’s cloud-based system, such that “[c]hanging the vehicle settings automatically updates the profile saved at the cloud[.]” 2-1. Multimedia system initial setup ● The driver who is registered as the owner can delete all drivers registered in the vehicle. Drivers who are not the vehicle owner cannot delete the owner’s profile. ● The same profile cannot be used in another vehicle at the same time. ● Changing the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears. See Toyota 2023 bZ4X Multimedia Owner’s Manual (OM42D77U), at 48-49, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf. “Cloud content is constantly kept up-to-date in the Toyota server[.]” See <i>id.</i> at 37:

Claim 21	Toyota Accused Instrumentalities
	The Intelligent Assistant allows the customer with the following enhancements: ● Enhanced Voice Recognition / Natural Language Understanding Improved voice performance by utilizing both in-vehicle and cloud-based voice recognition. ● Personalized experience Offers a unique experience catered to the particular user by utilizing learned user data stored in the cloud. ● Up-to-date information Cloud content is constantly kept up-to-date in the Toyota server, so there is no need to visit dealer for a data update. Toyota transfers cloud-stored User Profile data from Toyota’s server to the multimedia system of the User Profile-associated vehicle, using the vehicle’s factory installed telematics system and factory-installed DCM to communicate with Toyota’s server and apply one or more settings to the vehicle for customizing the vehicle to use those User Profile-associated settings. <i>See</i> Toyota Connected Services Terms of Use, Effective March 7, 2023, at 1-2, at https://www.toyota.com/privacyvts/images/doc/Toyota%20-%20Connected%20Services%20Terms%20of%20Use.pdf. The DCM is an embedded cellular device which enables wireless/GPS technology and allows Toyota to collect data from the user and the user’s vehicle. <i>See id.</i> The telematics system uses digital wireless telecommunications technology and GPS technology to enable Toyota Connected Services and Toyota-installed software via third party wireless networks, satellites, and related infrastructure. <i>See id.</i> at 2, 8; and <i>see</i> Toyota, 2023 Highlander Owner’s Manual, Audio & Multimedia, Connected Services, Connected Services overview, Types of functions, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.ibo1649038197243:

Claim 21	Toyota Accused Instrumentalities
	Types of functions PREVIOUS SECTION < Functional overview NEXT SECTION Before using the function > The functions included are classified into the following types. - Type A: Function achieved by using DCM and the system - Type B: Function achieved by using DCM - Type C Function achieved by using DCM and a smartphone Function Type User Profile, Drive Connect, Wi-Fi Connect, OTA Type A Safety Connect Type B Remote Connect, Service Connect Type C See also Toyota, 2023 Highlander Owner's Manual, Audio & Multimedia, Connected Services, Connected Services overview, Functional overview, at https://www.toyota.com/owners/resources/warranty-owners-manuals.highlander.2023.digital.om0e147u.fgi1649038197149:

Claim 21	Toyota Accused Instrumentalities
	Type A: Function achieved by using DCM and the system PREVIOUS SECTION < Before using the function NEXT SECTION Type B: Function achieved by using DCM > The functionality of User Profile, Drive Connect (Cloud Navigation, Intelligent Assistant, Destination Assist), Wi-Fi Connect (Wi-Fi Hotspot, Integrated Streaming) is made possible through the shared work of the DCM and the system. These services are available by subscription on select, telematics hardware- equipped vehicles and supported by the Toyota, which operates 24 hours a day, 7 days a week. For details about: - User Profile: Registering a user profile - Intelligent Assistant: Using the Intelligent Assistant system - Cloud Navigation: Cloud navigation - Destination Assist: Destination Assist - Integrated Streaming: Playing Integrated Streaming - Wi-Fi Hotspot: Setting Wi-Fi Hotspot And see: • User Profiles– To help improve the user’s overall driving experience, a user will receive the same personalized settings in new vehicles making it portable from vehicle to vehicle. The new profile system is stored on the cloud, meaning users can access and take their experiences on the go with them across vehicles featuring the new multimedia system. Once created, users can use a Bluetooth handheld device such as a smartphone or tablet, smart key, or manual login to access their profile.

Claim 21	Toyota Accused Instrumentalities
	Toyota Newsroom, Innovation, Toyota Motor North America Introduces Next-Generation Multimedia System to Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.
21[d] wherein a learning engine executed by a server of at least one data center is configured to process inputs made to one or more settings of the vehicle by the user to generate a recommended setting to add the plurality of settings to the profile;	See claim 21[pre], 21[a]-21[c], above. A learning engine executed by a server of at least one data center is configured to process inputs made to one or more settings of the vehicle by the user to generate a recommended setting to add the plurality of settings to the profile. As an example, when a user pushes the talk button in the vehicle, Toyota’s Intelligent Assistant “transcribes that speech to text both in the vehicle’s embedded computer and over the cloud,” and “Toyota Connected’s machine learning models in the cloud” process the transcribed commands and use the inputs made to the systems of the vehicle to find patterns in use of the systems of the vehicle while the profile was used with the vehicle.

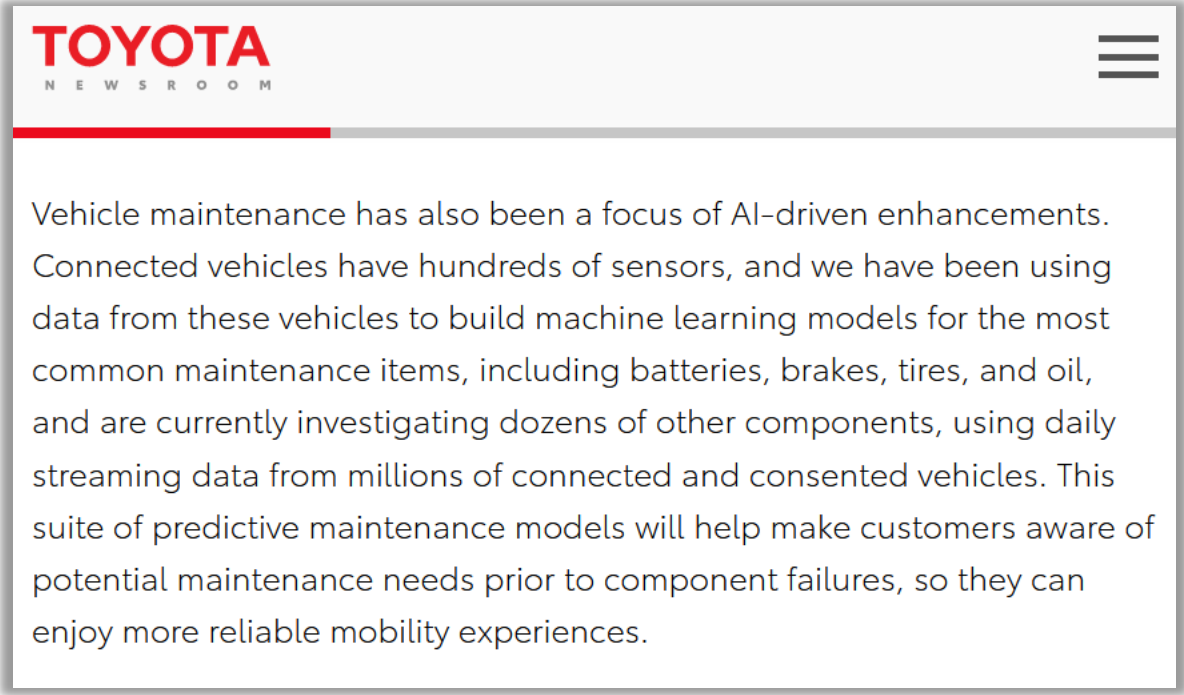
Claim 21	Toyota Accused Instrumentalities
	The transcribed command text is then processed by Toyota Connected's machine learning models in the cloud – what is the intent of the words being used, from audio commands to windshield wipers or even finding a five-star-rated burger restaurant nearby. From there, it's fed back to the vehicle where notes are compared between the embedded and cloud voice assistants to ensure the car is most accurately executing the command the user actually wants. "This is where the Toyota Connected magic comes in," Oehler said.

Claim 21	Toyota Accused Instrumentalities
	First up, the computer determines top-line intent – temperature, audio, navigation, etc. Then comes sub-intent – specific temperature, a song or that ice cream shop that always seems to hit the spot. If it’s a music request for a new J-Pop song, and you’re already listening to your favorite streaming platform, the head unit will attempt to find the song on that platform. If it’s not there, it will switch to the next best option, such as satellite radio. The system is constantly getting smarter, looking at accuracy and tweaking commands to add more ways to ask for specific functions. The new infotainment technologies that have brought forth the Intelligent Assistant made their way to the Lexus NX, LX, and Toyota Tundra for 2022 but are already being introduced in more models for 2023 in North America. As it proliferates to more models, the speed of the machine learning system’s ability to, well, learn will only accelerate. See Toyota Newsroom, Toyota’s New In-House Intelligent Assistant Learns Voice Commands and Gets Smarter Over Time, at https://pressroom.toyota.com/toyotas-new-in-house-intelligent-assistant-learns-voice-commands-and-gets-smarter-over-time/ Toyota’s Intelligent Assistant relies on machine learning artificial intelligence to process commands using the inputs made to the systems of the vehicle, such as navigation and music inputs, to find patterns in use of the systems of the vehicle and deliver “a smart, personalized experience” for the user. As instructed in the video below, Toyota’s “Intelligent Assistant goes a step further than Toyota’s standard voice assistant feature by relying on machine learning AI for a smart, personalized experience. ...For example, Intelligent Assistant works great with cloud navigation. ...Intelligent Assistant can also be used for music. ...If you’re curious

Claim 21	Toyota Accused Instrumentalities
	about what's playing, just ask 'what track is playing?' And if it's a song you love, you can say, 'play more music like this.' ” https://www.youtube.com/watch?app=desktop&v=kiPysxvkmoU Inputs made to one or more settings of the vehicle by the user are used to generate a recommended setting to add to the plurality of settings of the profile. As an example, the recommendations are provided to “[o]ffer[] a unique experience catered to the particular user by utilizing learned user data.”

Claim 21	Toyota Accused Instrumentalities
	The Intelligent Assistant allows the customer with the following enhancements: - Enhanced Voice Recognition / Natural Language Understanding - Improved voice performance by utilizing both in-vehicle and cloud-based voice recognition. - Personalized experience - Offers a unique experience catered to the particular user by utilizing learned user data stored in the cloud. - Up-to-date information - Cloud content is constantly kept up-to-date in the Toyota server, so there is no need to visit dealer for a data update. https://www.toyota.com/owners/warranty-owners-manuals/digital/article/highlander-hv/2023/om0e147u/oum1648203486842/ As shown below, for example, Toyota’s server detects similarities in patterns for inputs made to the multimedia systems of vehicles associated with the profiles of different users – “using daily streaming data from millions of connected and consented vehicles” – for trend analysis, product development, to build machine learning models, to provide AI-drive vehicle maintenance and other AI-driven enhancements. How does Toyota use the data Service Connect collects? The data is used for quality confirmation, trend analysis and product development. The data is also used to send you Vehicle Health Report and Alert Notifications. View our Privacy Policy for more information.

Claim 21	Toyota Accused Instrumentalities
	Toyota, Support Home, How does Toyota use the data Service Connect collects?, at https://support.toyota.com/s/article/How-does-Toyota-use-t-10231?language=en_US As shown below, for example, Toyota’s cloud-based system includes machine learning models that are executed by servers configured to process inputs made to one or more settings of the vehicle by the user to generate a recommended setting to add to the plurality of settings of the profile, such as audio, climate control and vehicle maintenance notifications. In parallel and through ingenuity, TCNA engineers built proofs of concept to see how they could enable AI-driven services as well. As such, the “Hey Toyota” and “Hey Lexus” Virtual Agents were born to support voice interactions in the vehicle. Launched in 2021, vehicles with the latest Toyota Audio Multimedia or Lexus Interface multimedia system have been using AI via Virtual Agent voice commands for audio, climate control, and other functions – even the ability to tell you a joke if you’re needing a pick-me-up. ...

Claim 21	Toyota Accused Instrumentalities
	 The screenshot shows the Toyota Newsroom header with the logo and a hamburger menu. The main text discusses AI-driven enhancements in vehicle maintenance, mentioning sensors, machine learning models, and predictive maintenance for components like batteries, brakes, tires, and oil. Vehicle maintenance has also been a focus of AI-driven enhancements. Connected vehicles have hundreds of sensors, and we have been using data from these vehicles to build machine learning models for the most common maintenance items, including batteries, brakes, tires, and oil, and are currently investigating dozens of other components, using daily streaming data from millions of connected and consented vehicles. This suite of predictive maintenance models will help make customers aware of potential maintenance needs prior to component failures, so they can enjoy more reliable mobility experiences. Toyota Newsroom, Home/Innovation/Mobility, Toyota and Generative AI: It's Here, and This is How We're Using It (September 6, 2023), at https://pressroom.toyota.com/toyota-and-generative-ai-its-here-and-this-is-how-were-using-it/

Claim 21	Toyota Accused Instrumentalities
	 TOYOTA NEWSROOM "Toyota and Generative AI: It's Here, and..." Toyota Connected engineers are looking into Predictive Maintenance concepts, which are designed to use AI algorithms to detect when parts may need to be replaced before the driver feels or hears changes in performance, such as with brake pads and rotors. <i>Id.</i> Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 21	Toyota Accused Instrumentalities
21[e] wherein accepted recommendations are saved to the profile and added to the cloud storage that is accessible to said one or more servers.	See claim 21[pre], 21[a]-21[d], above. Accepted recommendations are saved to the profile and added to the cloud storage that is accessible to said one or more servers. As shown below, for example, settings of a user profile may include “vehicle settings,” and by accepting recommendations to add to or change existing settings, the accepted recommendations are saved to the profile and added to the cloud storage. That is, “[c]hanging the vehicle settings automatically updates the profile saved at the cloud[.]” 2-1. Multimedia system initial setup ● The driver who is registered as the owner can delete all drivers registered in the vehicle. Drivers who are not the vehicle owner cannot delete the owner’s profile. ● The same profile cannot be used in another vehicle at the same time. ● Changing the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears. See Toyota 2023 bZ4X Multimedia Owner’s Manual (OM42D77U), at 48-49, at https://assets.sia.toyota.com/publications/en/omnav-s/OM42D77U/pdf/OM42D77U.pdf. Accepted recommendations to add or change user profile settings are regularly saved to the profile and added to the cloud storage that is accessible to one or more servers, as “[c]loud content is constantly kept up-to-date in the Toyota server[.]” See <i>id.</i> at 37:

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	The Intelligent Assistant allows the customer with the following enhancements: ● Enhanced Voice Recognition / Natural Language Understanding Improved voice performance by utilizing both in-vehicle and cloud-based voice recognition. ● Personalized experience Offers a unique experience catered to the particular user by utilizing learned user data stored in the cloud. ● Up-to-date information Cloud content is constantly kept up-to-date in the Toyota server, so there is no need to visit dealer for a data update. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.

Claim 22	Toyota Accused Instrumentalities
22. The cloud-based system of claim 21, wherein the profile is transferrable to one or more other vehicles, and wherein being transferrable enables syncing of said profile by uploading and downloading the profile from the server and saving it to storage of the one or more other vehicles for use of said plurality of settings.	To the extent the patent is corrected to include allowed claim 22, the Accused Instrumentalities would satisfy the required claim elements of claim 22, as set forth below. <i>See claim 21, above.</i> The profile is transferrable to one or more other vehicles, and wherein being transferrable enables syncing of said profile by uploading and downloading the profile from the server and saving it to storage of the one or more other vehicles for use of said plurality of settings. As described in claim 21 above, Toyota stores the User Profile data on cloud servers. A user can access the Toyota app to associate their User Profile(s) with a Toyota vehicle and/or rent a Toyota vehicle, and through its vehicle hardware and software, which enable communication with a Toyota server, Toyota makes the User Profile portable or transferrable to one or more other vehicles. <i>See</i> Toyota Newsroom, Toyota Motor North America Introduces Next-Generation Multimedia System To Deliver Best In-Car User Experience, at https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/; <i>see also</i> https://toyotaaudioandconnectedservicessupport.com/toyota/feature/Toyota%20User%20Profile%20/52cdcfa0-3376-11ec-bd3d-9d7b70ae271f?model=bZ4X&year=2023; <i>see also</i> RCR Wireless News, Toyota Connected and NTT Data to collaborate on mobility service business, April 2020, at https://www.rcrwireless.com/20200408/news/toyota-connected-ntt-data-collaborate-mobility-service-business (Toyota describing “its cloud data center for big data collected from connected cars”). As shown in the instructional video below, for example, a registered user can “add a vehicle” to their user account, and that user is able to access their user profile settings from the associated vehicles, making that user profile transferrable to one or more other vehicles.

Claim 22	Toyota Accused Instrumentalities
	Toyota App Account Management (March 7, 2023), at https://www.youtube.com/watch?v=yBOZ4IA5FZ4 Being transferrable enables syncing of the user profile by uploading and downloading the profile from the server and saving it to storage of the one or more other vehicles for use of the user settings. For example, the vehicle’s multimedia system displays a message with the option to select “settings,” and within the menu there is a list of “detected profiles” from which a user can select the desired profile for the user. To load a desired user profile to a vehicle’s multimedia system, Toyota’s server receives a request from the vehicle to access the desired profile, and the request identifies user information for a user to use the vehicle. For example, the user can opt to save user profile data to a cloud server, as opposed to the cloud

Claim 22	Toyota Accused Instrumentalities
	and the vehicle's multimedia system. Once the vehicle detects available Toyota User Profiles in the vehicle's vicinity, the user can select the desired profile and use a profile PIN to validate the profile. See Toyota, Support Home, Can I still use my profile if I don't want to save it to the vehicle?, at https://support.toyota.com/s/article/Can-I-still-use-my-profile-if-I-don-t-want-to-save-it-to-the-vehicle?language=en_US: Can I still use my profile if I don't want to save it to the vehicle? Yes. Your profile may be detected and loaded for use within the multimedia system without saving it. Once the profile is detected, the multimedia will display a message with the option to select "Settings." Within the menu there is a list of "Detected profiles" to select from. Select the desired profile for the driver. When prompted enter your profile PIN. Once the PIN is confirmed the profile is loaded to the vehicle. The system will suggest to "Save profile." If you do not wish to save the profile to the multimedia system, simply select "Do not save" when prompted. The Profile will no longer appear on the multimedia system after ACC OFF/Ignition OFF. Subsequently, the profile will need to be selected and validated via PIN for each use within the vehicle. For additional assistance with User Profile please visit our Audio & Connected Services Support Tool or reference your Owner's Manual. Further information regarding this limitation, including details of its operation are expected to be found in non-public technical documents, including source code related to the operation of the vehicle electronics, as may be further informed by source code concerning the operation of Toyota/Lexus servers responsible for aspects of the User Profile technology. Plaintiff reserves the right to supplement, amend, or otherwise modify these contentions in response to non-public documents, including source code, provided in this matter.