

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KIA CORP. and TOYOTA MOTOR CORP.,

Petitioners,

v.

EMERGING AUTOMOTIVE LLC,

Patent Owner.

Case No. IPR2024-00981

U.S. Patent No. 9,365,188

PETITIONERS' REPLY

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EXHIBIT LIST

Ex.	Description
1001	U.S. Patent No. 9,365,188 (“’188 patent”)
1002	Prosecution History for U.S. Patent No. 9,365,188
1003	Declaration of Dr. Almeroth
1004	U.S. Pat. Pub. No. 2014/0129053 (“Kleve”) (prior art under at least §§ 102(a)(2) or pre-AIA § 102(e))
1005	Certified translation of JP2010126949A (“Sekiyama”) (prior art under at least Section §§ 102(a)(1), (2) or pre-AIA § 102(a), (e))
1006	JP 2010126949
1007	Declaration of Herman Kahn
1008	U.S. Pat. Pub. No. 2011/0112969A1 (“Zaid”) (prior art under at least §§ 102(a)(1), (2) or pre-AIA §§ 102(a), 102(b), 102(e))
1009	U.S. Pat. Pub. No. 2011/0312273A1 (“Harris”) (prior art under at least §§ 102(a)(1), (2))
1010	U.S. Pat. Pub. No. 2011/0060480A1 (“Mottla”) (prior art under at least §§ 102(a)(1), (2) or pre-AIA § 102(a), (b), (e))
1011	U.S. Pat. Pub. No. 2006/0136106 (“Patenaude”) (prior art under at least §§ 102(a)(1), (2) or pre-AIA § 102(a), (b),(e))
1012	U.S. Pat. App. No. 61/478,436
1013	U.S. Pat. App. No. 61/745,729
1014	U.S. Pat. App. No. 13/452,882
1015	U.S. Pat. App. No. 13/842,158
1016	U.S. Pat. App. No. 14/063,638

1017	Order Granting Request For Ex Parte Reexamination, Reexamination Control No. 90/019,456, Patent No. 11,738,659 (April 15, 2024)
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1020-1039	Intentionally Left Blank
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1043	Collection of Orders Consolidating Cases signed by Judge Rodney Gilstrap (annotated, striking dismissed cases)
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I. INTRODUCTION

PO's Response retreads its rejected preliminary response arguments: that Kleve describes an optional mechanism for setting restrictions after the rental period begins, and therefore that is the **only** mechanism for setting restrictions. PO elevates this single disclosure to nonsensical heights, contradicting Kleve's own teachings elsewhere. The Board already rejected this argument, finding that Kleve's virtual key is only usable during a rental period, which requires enforcing such a restriction **before** the rental period begins.

As for Zaid, PO fixates on a single sentence in Zaid where a renter reserves a vehicle—ignoring Zaid's other disclosures that the owner sends the reservation request, and ignoring that it would have been obvious.

II. GROUND 1: KLEVE

As the Board correctly concluded in its institution decision, Kleve “describes an e-key that is only operable during a rental period.” ID 40; EX1004, ¶39. As a result, the rental period is set when the virtual key is requested. Pet. 16. Nothing in PO's Response (Paper 16, “POR”) refutes Kleve. As it did in its preliminary response, which the Board rejected, PO relies on step 214 of Figure 2 where the owner can set restrictions after the rental period begins. These teachings, however, do not preclude setting at least the rental period in advance to ensure the virtual key

is only operable during the rental period. And it makes no sense for Kleve to require the rental period to begin before the rental period can be set.

A. PO's Summary of Kleve is Internally Inconsistent and Ignores its Full Disclosure

PO first provides a “summary” of Kleve that selectively ignores Kleve’s teachings and is internally inconsistent. POR 4-26. On the one hand, PO concedes that prior to generating a virtual key, the owner and renter agree on a set of restrictions, *including* the rental period. POR 5-8. Yet PO argues that such restrictions are not assigned to the vehicle until *after* the rental period begins. POR 13-15. Such a strained reading not only contradicts Kleve’s teachings, it is nonsensical to require restrictions be set *only* during the rental period when the rental period *itself* is a use condition. Moreover, PO’s reading makes no sense in terms of operational security, as the virtual key is delivered to the temporary user before any conditions are set, and would therefore be unmoored from any timing and use restriction.

1. Kleve Teaches Assigning and Enforcing Restrictions Before the Rental Period

Enforcing the rental period before the rental period begins is both common sense and made clear in Kleve. As the Board found, Kleve’s virtual key is “only operable during a rental period.” ID 40; EX1004, ¶39 (“The virtual key ... enable[s] the keyless drive system for the appropriate Temporary user *during a given rental*

period.”). Thus, as Petitioners explained, the virtual key request includes (or it would have been obvious to include) at least the rental period so that the server system can ensure the virtual key is only sent “during a given rental period.” Pet. 15-16; EX1003, ¶¶120-23.

Kleve elsewhere teaches that restrictions are assigned *before* the rental period begins. For example and as explained in the Petition, Kleve’s Figure 6 teaches that after the restrictions are agreed, the vehicle owner’s device sends a request to simultaneously “Generate Virtual Key and Vehicle Restrictions.” EX1004, Fig. 6; EX1003, ¶111; Pet. 12. The virtual key is then “generated and sent to the Temporary User” by the server at step 616, and the restrictions are delivered to the vehicle at step 606. *Id.*, ¶69. Afterwards, “when the Temporary User arrives at the vehicle *within the scheduled rental time*,” that “Appl[ies] Restrictions.” *Id.*, ¶70, Fig. 6.

Similarly, Kleve teaches that “the VCS may implement assigned vehicle control limitations during the use of the rental term,” meaning restrictions are assigned *before* the rental term begins. EX1004, ¶51, Fig. 6 (illustrating “use virtual key” and “apply vehicle restrictions” occurring simultaneously in step 622). To implement a limitation that begins with the rental term, such as “speed,” it would be assigned before the rental term. *Id.*; see also EX1004, Figs. 8-9, ¶¶84-85, 89-90 (“load weight” and “amount of miles” restrictions assigned *before* “begin[ning] the keyless vehicle rental authorization process”). Kleve further notes “[c]ontrolling

usage to enforce compliance with the rental agreement terms,” which would include the rental period. EX1004, ¶51. The enforcement of any rental period, including limiting the usage of a virtual key to that period, requires that the rental period be communicated to the server before it begins.

Kleve also teaches “monitor[ing] the vehicle for the **entire** rental period.” EX1004, ¶54. This would mean the restrictions must be assigned **prior** to the start of the rental period in order to monitor usage for the entire period.

In addition, Kleve states that following agreement, a virtual key is requested and “sent to the vehicle allowing Temporary user access to the Owner’s vehicle” but only “[a]t rental time.” *Id.*, ¶62, Fig. 5. In order for the vehicle to restrict using the virtual key to “rental time,” the rental period would need to be communicated with the virtual key request, and then communicated to the vehicle.

Kleve further describes in Figure 7 that the VCS “may begin monitoring and report usage” at step 702 and then “wait for the rental period to start at step 704.” EX1004, ¶75. Thus, enforcement of the rental period begins before step 704. The VCS would receive the rental period from the server when the “virtual key” is “sent in an encrypted message to the VCS.” *Id.*, ¶63. Thus, the virtual key request includes restrictions, including the rental period. Following “the start of the rental period at step 708,” the “system may begin to download performance limitations and

restrictions assigned by the vehicle,” indicating that such performance use conditions were assigned prior to the start of the rental period. *Id.*, ¶75.

PO’s summary of Kleve ignores such teachings, instead elevating a single, admittedly optional, step from Figure 2 to argue that Kleve’s use conditions can **only** be set after the rental period starts. Kleve’s system is not so limited.

2. PO Conflates Kleve’s Virtual Key with its Credential

First, PO argues that Kleve’s virtual key consists only of a Temporary User “credential” (such as a photo ID, fingerprint or passcode) and therefore that is the only information sent when requesting a virtual key. POR 9-12. PO’s argument is not consistent with Kleve’s disclosures as discussed above. Moreover, PO selectively quotes Kleve which expressly states that the credential can be “used as a virtual key, **or in addition to the virtual key.**” EX1004, ¶63. PO further conflates the virtual key with Kleve’s process for the vehicle to check and match the credential. While Kleve certainly contemplates that the credential can itself be virtual key, Kleve also describes that the credential can be “in addition to the virtual key,” and instead be verified “inside of the vehicle” **after** the user has unlocked the vehicle with the virtual key—further supporting that the credential and the key can be separate. *Id.*, ¶¶63, 64, 67 (“Once the Temporary user enters the vehicle and captures the credentials ... the vehicle may verify that the Temporary user has approval to use the vehicle.”), Fig. 5 (“At Rental Time TU Enters Vehicle and

Captures Credential with Vehicle Camera”). Regardless, Kleve does not foreclose additional information being included in the virtual key request—and as discussed above, the vehicle limits entry to the “rental time,” requiring that use condition to be included in the virtual key request.

PO argues that if the rental period were included in the virtual key request, “it would not be necessary for the Vehicle Owner to also send the credential to the vehicle ‘at rental time.’” POR 11-12. But this is not a reasonable interpretation of the reference. Kleve states that at step 502 “[t]he virtual key may be sent to the vehicle allowing Temporary User access to the Owner’s vehicle” and later at step 506, “[w]hen the scheduled rental period of time begins the vehicle Owner may send the credentials to the vehicle.” EX1004, ¶¶62, 66. Thus, even where “the vehicle Owner may send the credentials to the vehicle,” the virtual key and the credential have complementary purposes: the former allows access (but only “[a]t rental time,” see Fig. 5) and the latter is an additional security check to ensure the temporary user is who they claim to be. Having the virtual key include the rental period is necessary to limit its use to the “rental time” as taught in Kleve, and sending the credential “at rental time” does not contradict this teaching.

3. Step 214 is Not The Only Mechanism for Setting Restrictions

Second, PO argues that Kleve “provides a separate, *optional* operation to allow only the Owner to ‘set user restrictions’” after the rental period starts, relying

on step 214 from Figure 2. POR 12-17 (citing to EX1004, ¶40, Fig. 2). But by PO's own admission, step 214 is an **optional** process. EX1004, ¶40 ("At step 214, the Owner ... **may** set user restrictions by use of the website or nomadic device."). Yet enforcement of the rental period is **not** optional. EX1004, ¶8 ("enabling a keyless vehicle drive-away during a scheduled rental period"), ¶39 ("The virtual key may also be sent to the vehicle ... to enable the keyless drive system for the appropriate Temporary user during a given rental period."), ¶51 ("Controlling usage to enforce compliance with the rental agreement terms may be of more importance to a vehicle rental micro-business owner as this may be the only vehicle the Owner possesses."); ¶54 (describing enforcement of the end of the rental period). Accordingly, a POSITA would understand there is a mechanism to enforce the rental period that does not require the use of step 214—and notably, Kleve does not include the rental period in the list of restrictions described for step 214. EX1004, ¶40; EX1048, 13:18-14:4.

PO's argument that step 214 is the only mechanism for assigning use restrictions is neither stated by Kleve, nor consistent with Kleve's other teachings that the rental period must be enforced. Again, as the Board found, the virtual key is "only operable during a rental period." ID 40. Since the virtual key is sent before the beginning of the rental period, there must be a mechanism outside of step 214 that disallows its use before the rental period. As discussed above, Kleve provides

numerous teachings where use restrictions are assigned before the rental period begins. *See, e.g.*, EX1004, ¶39 (“The virtual key ... enable[s] the keyless drive system ... during a given rental period.”); Fig. 6 (generating restrictions before user receives virtual key). More fundamentally, PO’s argument contradicts itself. If Kleve requires that use conditions be assigned at “the beginning of the rental term at step 214” (POR 13), then there is no mechanism for the system to allow the setting of use conditions unless and until it knows the rental period. Thus, prior to step 214, there must be some mechanism for setting the rental period so that the system can allow the owner to set restrictions at the beginning of rental term.

PO argues that if the rental agreement terms are included in the virtual key request, step 214 “would not be necessary.” POR 14-15. But by PO’s own admission, step 214 is “optional” (POR 12)—and it is only described for Figure 2. As discussed above, other teachings make clear that the rental agreement terms can be assigned before the rental period begins. *See, e.g.*, EX1004, ¶39 (“The virtual key ... enable[s] the keyless drive system ... during a given rental period.”); Fig. 6 (generating restrictions before user receives virtual key). In addition, as PO concedes, it is entirely plausible that step 214 is used for assigning restrictions that are **not** part of the rental agreement. POR 30 (accusing Petitioners of conflating the step 214 restrictions with the rental agreement terms). Moreover, Kleve does not describe the rental period as a restriction that the owner sets at step 214. EX1004,

¶40. Thus, assuming (incorrectly) that step 214 is even “necessary” for enforcing rental term agreements, it could be used for initially assigning what Kleve describes elsewhere as geofencing or performance restrictions—*e.g.*, speed, location, or load weight restrictions—not the rental period. EX1004, ¶40, 75 (“performance limitations and restrictions”), Fig. 7-A (“Geofences”).

PO further argues that step 214 is “link[ed]” with the rental period, because if the temporary user wishes to extend the rental period end time, Figure 2 depicts a return to step 214. POR 19-20; EX1004, ¶43; Fig. 2. As Kleve makes clear, step 214 is used for extending the “rental period **end time**.” EX1004, ¶43. This underscores the point that Kleve does **not** disclose that step 214 is used for assigning the **start** of the rental period—nor could it be for the reasons explained above. *See, e.g.*, EX1004, ¶39 (“The virtual key ... enable[s] the keyless drive system ... during a given rental period.”); Fig. 6 (generating restrictions before user receives virtual key). Moreover, other figures do not have a similar “step 214.” For example, in Figure 3, at step 326 “the VCS may implement **assigned** vehicle control limitations during the use of the rental term,” *i.e.* such limitations are **pre-assigned** before the start of the rental term. If a user desires to extend the rental period, that is done at step 346 (or possibly step 328). *See* Fig. 3B. There is no equivalent to step 214 in Figure 3.

4. The Virtual Key Is Not Unmoored From Restrictions

Third, PO argues that the virtual key is “operable independent of the agreed-upon rental period.” POR 21-26. PO suggests that since Kleve describes processes for the vehicle owner to provide leeway to the temporary user if they are near or exceed the rental period end time, or processes to shut down the virtual key because of vehicle abuse, that means the virtual key is entirely unmoored for the rental period and is usable even *before* the rental period begins. *Id.* That is a leap that defies logic. Kleve is clear that the rental period controls the virtual key. *See, e.g.*, EX1004, ¶39; Fig. 6 (generating restrictions before user receives virtual key). That there are optional mechanisms for the owner to extend the rental period end time, or cancel the virtual key ahead of time, in no way requires that the system would violate the owner’s desires and allow the virtual key to be used before the rental period began. This of course would render moot the rental period, whose enforcement Kleve teaches is “important[t].” *Id.*, ¶51. Indeed, the very purpose of Kleve’s invention is to allow “activat[ion of] a vehicle during a *prescribed* rental period.” EX1004, Abstract.

It is, of course, desirable for the vehicle owner to allow the temporary user to extend the rental period for a fee. Kleve also permits the vehicle owner to *not* allow an extension and instead “induce remedial actions.” EX1004, ¶54. It is also desirable to allow the owner to cancel the virtual key if the temporary user is greatly

exceeding the agreed-upon restrictions. Both of these options reduce the risk of vehicle damage or improper usage—and Kleve makes clear they are at the option of the vehicle owner. By no means does this mean that Kleve does not enforce the rental period **at all**—Kleve enforces the rental period unless the owner permits otherwise.

Thus, given the flaws in PO's description of Kleve, PO's contention that Kleve does not render obvious the challenged claims must fail.

B. Kleve Discloses Sending an e-Key Request with Use Conditions

PO argues that Kleve does not disclose the claimed “conditions of use” included with an e-key request. The Board already rejected this argument, and PO's mischaracterization of Kleve does not refute Kleve's own teaching that the virtual key is “to enable” vehicle access “during a given rental period.” EX1004, ¶39; ID 40. PO largely relies on “step 214,” which is an optional step that cannot **preclude** rental period enforcement before the rental period begins.

PO first argues that all restrictions are set “at the beginning of the rental term,” which would be unnecessary if they were set beforehand. POR 29-32, 41-42, 47-48 (citing step 214). As discussed above, this is incorrect—step 214 does not preclude enforcing the rental period before it begins. EX1004, ¶39 (“The virtual key ... enable[s] the keyless drive system ... during a given rental period.”); Fig. 6 (generating restrictions before user receives virtual key). PO further argues that Dr.

Almeroth “conflate[s] *Kleve*’s ‘user restrictions’—set by the Owner at step 214—with *Kleve*’s rental agreement terms—negotiated and agreed to by *both parties* at steps 206 and 208.” POR 30. PO concedes that these are **not** the same restrictions. It is the rental agreement terms which set out the rental period—which must be enforced. That the owner can set *other* restrictions at step 214 has no bearing on Petitioners’ theory.

PO reiterates its argument about extending the rental period end time, arguing that “were the ‘rental period’ somehow included in the virtual key, at step 210 (or even earlier, i.e. at steps 206 or 208) ... it would make no sense for *Kleve* to update only step 214, in order to ‘update the new rental period end time restriction,’ step 226 -> step 214, but *not* at step 210 or steps 206 or 208.” POR 34-35; *see also* 42-43. PO does not explain why the extension of the **end time** must be in the same step as the initial setting of the rental period, including its start time—these are different restrictions being enforced at different times. Indeed, Figure 3 describes what PO accuses of “mak[ing] no sense,” where the step of initially setting the restriction is different from the step for extending the end time. EX1004, ¶51, Fig. 3 (step 326 implements restrictions, steps 346 to 328 extends the end time).

PO further contends that the rental period is enforced through “credentials” disclosed in Figure 5. POR 35-36. But as discussed above, *Kleve* discloses that the virtual key is not necessarily the same as the “credential”—the former is sent at step

502 and provides access to the vehicle during the rental period and the latter is sent at step 506 and allows the vehicle to authenticate the temporary user. EX1004, ¶¶62-64. Kleve makes clear in that the virtual key must be limited in use to the “[r]ental time,” which cannot be enforced by merely sending the credential at the start of the rental period, since the virtual key is sent before the credential and the credential is not checked until after the user enters the vehicle. EX1004, Fig. 5, ¶64. Between the time the virtual key is sent to the temporary user and the time the user unlocks the vehicle and authenticates their credential, there must be a mechanism that prevents the user from using the virtual key before the rental period begins.

PO next argues that the “destination location” is a restriction set at step 214. POR 38. But the “destination location” is described in Figure 3, which as discussed above describes pre-assigning restrictions before the rental period begins. EX1004, ¶51. Specifically, at step 326 of Figure 3, “the VCS may implement assigned vehicle control limitations”—*i.e.* restrictions are pre-assigned and then, when the rental period begins, implemented at step 326. This means that the restrictions must be set **before** the rental period begins. Figure 2’s step 214 where restrictions are set at “the beginning of the rental term” is a different mechanism for assigning restrictions. EX1004, ¶43.

Similarly, PO argues that the “prohibited areas,” “top vehicle speed,” and “limiting the cargo load” restrictions of Figure 7 are set at step 214, once again

elevating step 214 to a required step for all figures. POR 38-40. But as discussed above, Kleve is clear that Figure 7 monitors use restrictions while it “wait[s] for the rental period to start”—indicating that the restrictions can be set prior to the rental period. EX1004, ¶75. This is again different than the mechanism of step 214. In arguing that Figure 7 assigns restrictions at the start of the rental period, PO misquotes Kleve. Specifically, PO purportedly quotes Kleve as disclosing “download performance limitations and restrictions assigned by the Vehicle Owner at the start of the rental period, at step 708.” POR 40. But PO added an extra comma before the phrase “at step 708” to make it appear that the “start of the rental period” modifies “assigned by the Vehicle Owner” as opposed to “download performance limitations.” In reality, without the comma, the clause is “at the start of the rental period at step 708” which can only reasonably be understood as modifying “download performance limitations.” EX1004, ¶75; Fig. 7A (“Download Geofences or Performance Limits”). In other words, in Figure 7, the VCS downloads pre-assigned restrictions at the beginning of the rental start time, which is similar to Figure 3 where pre-assigned restrictions are implemented at rental start time.

PO argues that the rental agreement use conditions cannot be included in the virtual key and enforced because the rental agreement is not accepted until **after** the virtual key is distributed. POR 43-45, 46-47. PO once again conflates the optional with the mandatory. Kleve clearly describes that Figure 5 “illustrates the process

after the vehicle Owner and Temporary User ... *have both agreed to the rental agreement.*” EX1004, ¶62. Kleve does describe an alternative embodiment where the rental agreement is accepted at the vehicle, but that alternative makes no mention of virtual keys (instead, access to the vehicle is determined by checking the user’s identity)—and is again an optional, alternative embodiment. EX1004, ¶65.

PO finally argues that “the virtual key cannot include any restrictions, let alone any rental agreement restrictions.” POR 45-46; EX1048, 16:18-17:16 (“[W]hat Kleve is describing is that the virtual keys, yes, they could be -- or they are available prior to the -- prior to the start of the rental period.”). Yet Kleve emphasizes ensuring proper enforcement of the agreement, including that the virtual key cannot grant vehicle access until the rental period begins. EX1004, Abstract, ¶¶8, 39, 51. If the virtual key is completely unmoored from any restrictions, then that is highly detrimental to the security of the vehicle. What PO has done is elevate the admittedly optional step 214 into an absolute requirement for setting restrictions, while ignoring all other teachings that state otherwise, resulting in a system that defies common sense and which no POSITA would ever find desirable.

C. Kleve Renders Obvious Sending a Virtual Key Request with Conditions of Use

Dr. Almeroth explained it would be obvious to include the restrictions in the virtual key request. EX1003, ¶¶122-123; Pet. 16. Dr. Almeroth opined that doing so “would provide the well-known benefits of associating the virtual key with the

restrictions such that the central system knows which restrictions must be enforced with which virtual keys,” thereby facilitating “monitor[ing] and enforce[ing] the restrictions.” EX1003, ¶122; EX1004, ¶39 (“The virtual key ... enable[s] the keyless drive system ... during a given rental period.”); Fig. 6 (generating restrictions before user receives virtual key).

PO argues that Kleve already “associates the user restrictions ... with the system’s functions to control, monitor and update restrictions.” POR 50-51. But under PO’s flawed reading of Kleve, the restrictions are **not** associated with the virtual key, as PO readily admits. POR 45-46. Yet Kleve makes clear that the virtual key is transmitted well before the start of the rental period. EX1004, ¶¶39, 51, 54, 62, 69-70, 75, Figs. 3-7. Thus, associating the virtual key with the restrictions to limit its use to the rental period is advantageous. Otherwise, anyone who accepts a rental agreement and receives a virtual key can have unfettered access to the owner’s vehicle before the start of the rental period—which renders the agreed-upon rental period entirely pointless and creates an insecure system. Accordingly, under PO’s flawed reading of Kleve, Dr. Almeroth’s motivation to include use restrictions with the virtual key request is ever more important.

PO also argues that Dr. Almeroth does not explain how the modification “would ensure the Owner retains full discretion and control over vehicle usage.” POR 51. Nothing about Dr. Almeroth’s proposed modification would require

changing anything in Kleve with respect to the vehicle owner's ability to control vehicle usage, such as modifying restrictions on the fly, canceling virtual keys as a result of abuse, or extending the rental period.

PO again argues that Kleve “*already allows* restrictions to be monitored and enforced” once they are set at step 214. POR 51-53 (emphasis original). PO identifies the flaw in its own argument. Under PO's reading that elevates step 214 over all other teachings, Kleve provides **no** enforcement mechanism prior to step 214. This makes for a highly flawed and insecure system that a POSITA would desirably seek to fix with the simple solution of including the rental agreement conditions with the virtual key request.

Finally, PO argues that Kleve only allows the Vehicle Owners “to input restrictions to control usage,” whereas Petitioners' proposal would allow the temporary user some say in the restrictions, since the temporary user must agree to them. POR 54-55. This is false. The rental agreement restrictions are **set by the Vehicle Owner** and consented to by the Temporary User—the owner can accommodate the temporary user as much or as little as they wish. EX1004, ¶38. As Kleve explains, “enforc[ing] compliance with the rental agreement terms may be of more importance to a vehicle rental micro-business owner as this may be the only vehicle the Owner possesses.” EX1004, ¶51. Far from removing control from the owner, the agreement **protects** the owner by limiting usage to **what the owner**

agrees. While Kleve provides mechanisms for the Vehicle Owner to enforce further restrictions on vehicle usage that are not part of the agreement, Petitioners and Dr. Almeroth did not in any way suggest removing those mechanisms. By contrast, PO's reading of Kleve does not set the owner's desired restrictions until the rental period starts—leaving anyone with a virtual key unfettered access to the vehicle. EX1048, 16:18-17:16.

III. GROUNDS 1 AND 7: KLEVE RENDERS CLAIM 17 OBVIOUS

Separately, PO argues Kleve does not disclose claim 17's "identify[ing]" and "learning" of patterns, though does not address Ground 7. POR 57-60. Specifically, PO argues that Kleve's "stored frequent destinations" are "preset by the User and transferred directly from the User's phone." POR 57-58 (citing EX1004, ¶¶50, 72). But Kleve does not describe "stored frequent destinations" as being set and transferred from the temporary user's phone. *Compare* EX1004, ¶50 ("stored frequent destinations") *with* ¶72 (no mention of frequent destinations). Indeed, a list of "frequent destinations" of a user is unlikely to be accurate if manually entered by the user, and likely to become less accurate over time.

PO also argues that the word "preset" indicates the settings are not learned. This is directly contradicted by the '188 patent, which describes "learned settings" as being "**preset** for you automatically." EX1001, 28:28.

PO further argues that the server does not “store[]” the temporary user’s settings, but rather the user’s phone transmits the settings. POR 58-59. But the settings are “applied” as a step in Figure 3, which is a method performed by “a vehicle rental micro-business,” not the temporary user’s mobile device. EX1004, ¶46. PO instead cites to Kleve at ¶72, which does not mention frequent destinations. POR 39. Further, in the unrebutted combination with Patenaude (Ground 7), Patenaude explains that the server “*change[s] and transmit[s] personal preference settings* from a client at computer 150 to telematics unit 120 in MVCU 110.” EX1011, ¶29 (emphasis added).

IV. ZAID RENDERS OBVIOUS THE CHALLENGED CLAIMS

PO raises several flawed positions to support its argument that Zaid does not render the challenged claims unpatentable. PO’s arguments focus on a single paragraph in Zaid without considering other teachings.

A. “Request From a User Via a User Account”

PO argues that Zaid’s reservation request (*i.e.* e-key request) is sent by the renter, not the owner. POR 64-66. PO’s argument focuses on Zaid’s ¶72, which states that the renter “make[s the] reservation.” But that says nothing about who sends the reservation request—or that it must be sent by the renter. Zaid elsewhere explains the source of the request, specifically that the “system allows a vehicle ... *owner* to dynamically send out a vehicle request.” EX1008, ¶79; *see also* ¶77 (“a

vehicle user (e.g. ... owner))), ¶125 (“the vehicle reservation is booked by a user [and] [t]he computing device can be any suitable computing device”).

PO first argues that there is “no basis in fact” for an owner to request a reservation or their vehicle. POR 66. First, Zaid expressly teaches that an owner can reserve their own vehicle. EX1008, ¶69 (“[T]he reservation includes an unlimited time period for access to the vehicle *for example for the vehicle owner.*”). Second, PO acknowledges that the owner “may even obtain data to maintain some ‘control over the type of user the owner is lending/sharing/renting [a] vehicle to.’” POR 65 (quoting EX1008, ¶72). As the Petition explained, having the **owner** request the reservation ensures they have control over who rents their vehicle. Pet. 44; EX1003, ¶210.

PO next argues that it would not have been obvious to send the request from an owner’s account because Zaid does not disclose that the owner has an account. POR 66-67. But Zaid discloses that the vehicle reservation system is accessed by the renter by logging into their account on a “social networking website[]” such as “Facebook.” EX1008, ¶72; Pet. 42; EX1003, ¶206. Since the owner accesses the same website to advertise their vehicle, a POSITA would understand this is done via the owner’s account. EX1003, ¶206. Indeed, PO acknowledges that “a vehicle owner ... log[s] into his/her own Facebook account.” POR 65; *id.* (“[A] vehicle owner ... may even obtain data to maintain some control over the type of user”). In

any case, Zaid is clear that the owner has a user account in order to update the owner's advertisement listing. EX1008, ¶77 (“[A] vehicle user (e.g., ... owner) to communicate with backend server(s) ... to (a) advertise or announce the location of the vehicle, (b) advertise or announce the location of the user, (c) advertise or announce when the vehicle will be available for sharing”), ¶79 (“[T]he vehicle reservation system allows a vehicle ... owner to dynamically send out a vehicle request and/or update the server(s)”).

PO next argues it would be “untenable” for the owner to have a Facebook account to access the rental application, simply because Paragraph 72 of Zaid refers to the renter's Facebook account. POR 67. That a single paragraph in Zaid refers to a renter's account does not preclude the owner obviously having an account—indeed, the teaching of a renter's account supports obviousness. Pet. 42-43.

Finally, PO argues that Zaid does not “disclose functionality to make any reservation” and therefore does not send a reservation request at all. POR 67. Zaid's system “receive[s a] vehicle reservation” after which “a vehicle reservation is booked.” Pet. 44 (quoting EX1008, ¶125). PO acknowledges that “the renter of the vehicle ... ‘must first log into the social networking website before he/she can view the advertisement and make [*sic*, a] reservation’” through the Facebook application. POR 64 (quoting EX1008, ¶72).

B. “The Request Includes a Condition of Use”

PO argues that Zaid does not disclose this limitation because the petition “rel[ies] on different ‘user accounts,’ different ‘users,’ and different ‘requests.’” POR 68.

First, PO claims that the petition relies on “a renter logging into their Facebook account to view an ad and ‘make [a] reservation.’” POR 68 (quoting EX1008, ¶72), 70. This misconstrues the petition, which relied on other disclosures in Zaid showing that the reservation request is sent from the *owner’s* account, and that it would be obvious to do so.

Second, PO claims that Zaid’s “**vehicle reservation** application” is wholly disconnected from Zaid’s reservation system. POR 69. This cannot be true given that application is for “vehicle reservation[s]” and is clearly connected to the same “online vehicle reservation system” that reservations with use conditions are sent. The “vehicle reservation application” is for advertising vehicle rentals, and is therefore connected to the “social networking website” on which a renter can “view the advertisement and make [a] reservation.” EX1008, ¶¶72, 77. Thus, when Zaid says the owner can set “when the vehicle is available for sharing,” a POSITA would understand that that is the same “specified time period” that is included in the reservation request. EX1008, ¶¶77, 69.

C. Claim 12

PO argues that Zaid does not disclose claim 12 because the *renter* makes the reservation. POR 72-73. As discussed above, that is not true.

D. Claims 14 and 15

PO argues Zaid does not disclose claims 14 and 15 because “Petitioners’ examples fail to teach or suggest any selectable template having a set of privileges.” POR 73-74. But the petition explained just that. Zaid discloses a selectable “user” template where the reservation has a predetermined set of privileges that includes “a limited time period.” Pet. 57; EX1008, ¶¶69, 131.

V. CONCLUSION

For these reasons, all challenged claims are unpatentable.

Date: July 21, 2025

Respectfully submitted,

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**CERTIFICATE OF COMPLIANCE WITH
TYPE-VOLUME LIMITATION, TYPEFACE REQUIREMENTS,
AND TYPE STYLE REQUIREMENTS**

1. This Petition complies with the type-volume limitation of 5,600 words, comprising 5,539 words, as counted using the Microsoft Word software that was used to prepare this paper, excluding the parts exempted by 37 C.F.R. § 42.24(a).

2. This Petition complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman.

Date: July 21, 2025

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on July 21, 2025, true and correct copies of the foregoing document and supporting materials were served in its entirety on the Patent Owner at the following email addresses:

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