

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

CARBYNE BIOMETRICS, LLC,
Patent Owner

Case: IPR2024-00507
U.S. Patent No. 11,475,105

PATENT OWNER'S PRELIMINARY RESPONSE

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2002	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 30 (Plaintiff’s Response to Defendant’s Rule 12(b)(6) Motion to Dismiss the Complaint for Failure to State a Claim Under 35 U.S.C. §101) (W.D. Tex. June 1, 2023)
2003	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 31 (Defendant’s Reply Brief In Support of Motion to Dismiss for Failure to State Claim Under 35 U.S.C. §101) (W.D. Tex. June 28, 2023).
2004	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 64 (Defendant’s Opposed Motion to Stay Pending Transfer) (W.D. Tex. November 28, 2023)
2005	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 37 (Defendant’s Opposed Motion to Transfer (redacted)) (W.D. Tex. July 26, 2023)
2006	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 66 (Carbyne’s Response to Motion to Stay Pending Transfer) (W.D. Tex. December 5, 2023)
2007	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 50(Carbyne’s Response to Motion to Transfer Venue) (W.D. Tex. October 27, 2023)
2008	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 55 (Apple’s Reply In Support of Its Motion to Transfer Venue) (W.D. Tex. November 10, 2023)
2009	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 60 (Carbyne’s Surreply in Response to Motion to Transfer

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2010	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 42 (Apple’s Opening Claim Construction Brief) (W.D. Tex. October 4, 2023)
2011	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 49 (Carbyne’s Response to Apple’s Proposed Claim Construction) (W.D. Tex. October 25, 2023)
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2013	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 62 (Carbyne’s Sur-Reply to Apple’s Claim Construction Brief) (W.D. Tex. November 22, 2023)
2014	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 69 (Minute Entry re Markman Hearing and Motion to Transfer Venue) (W.D. Tex. December 12, 2023)
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2016	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Dkt 79 (Carbyne’s Response to Motion to Stay Pending Written Order on Transfer) (W.D. Tex. January 24, 2024)
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2018	<i>In Re Apple</i> , Case No. 2024-111, Dkt 2 (Apple’s Petition for Writ of Mandamus) (Fed. Cir. February 1, 2024)
2019	<i>In Re Apple</i> , Case No. 2024-111, Dkt. 13 (Carbyne’s Response to Writ of Mandamus) (Fed. Cir. February 20, 2024)
2020	<i>In Re Apple Inc.</i> , Case No. 2024-111, Dkt 15 (Apple’s Reply In

	Support of Petition for Writ of Mandamus) (Fed. Cir. February 27, 2024)
2021	<i>In Re Apple Inc.</i> , Case No. 2024-111, Dkt 18 (Order Denying Writ of Mandamus) (Fed. Cir., March 18, 2024)
2022	United States Patent and Trademark Office Memorandum Dated June 21, 2022 re: Interim Procedure for Discretionary Denials in AIA post-grant proceedings with Parallel District Court Litigation
2023	<i>Cloud of change, LLC v. Lightspeed POS Inc.</i> , Case NO. 6:21-cv-0102 Order Denying Lightspeed POS Inc’s Opposed Motion to Stay Pending Resolution of <i>Inter Partes</i> Review (W.D. Tex. Dated May 15, 2023)
2024	<i>Sonrai Memory Limited v. LG Electronics, Inc.</i> 2022 WL 2307475 (W.D. Tex. June 27, 2022)
2025	<i>Carbyne Biometrics, LLC v. Apple Inc.</i> , Case No. 1:23-cv-00324, Apple’s Amended Preliminary Invalidity Contentions (W.D. Tex. October 6, 2023) (excerpts)
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2027	U.S. Patent No. 11,841,929
2028	<i>Intentionally Omitted</i>
2029	U.S. Patent No. 11,556,617
2030	U.S. Patent Application 2011/0138450 (“Kesanupalli ’450”)
2031	<i>Intentionally Omitted</i>
2032	<i>Intentionally Omitted</i>
2033	<i>Intentionally Omitted</i>
2034	<i>Intentionally Omitted</i>
2035	Email Correspondence From Counsel Of Petitioner To Counsel of Patent Owner re <i>Sotera</i> Stipulations and <i>Carbyne Biometrics, LLC</i>

	<i>v. Apple Inc.</i> , 1:23-cv-0032 (W.D. Tex.)
2036	Email Correspondence From Counsel Of Petitioner To The Board re <i>Sotera</i> Stipulations for IPRs IPR2024-00329, -00330, -00331, -00332, -00333, -00334 and-00507

I. INTRODUCTION

The Board should deny institution in its discretion under 35 U.S.C. § 314(a) for at least any one of the following reasons:¹

Procedurally, the Petition should be denied under *Fintiv*. Petitioner, Patent Owner, the District Court, and the Federal Circuit have spent a tremendous amount of time, energy, and resources on the underlying district court litigation. This is not a typical district court case where a defendant files an IPR prior to any briefing occurring and is able to claim with a straight face that this case is in its “early stages.”

¹ IPR2024-00333 and IPR2024-00507 (this IPR) both challenge the ’105 Patent. *See* Paper 2 (Petitioner’s Notice of Ranking). Each proceeding uses the same base references. *Id.* at 4 (“Despite the challenge of distinct sets of claims, the Board can efficiently resolve the grounds of the first and second Petitions, as second-Petition challenges rely on a combination of the same base prior art (Kesanupalli / Cheng / Kodama; Jakobsson ’351 / Kodama)”). Patent Owner is only addressing the independent claims in this Preliminary Response and the differences between the Petitions (the new references in the dependent claims) are not addressed in this Response. If the Board finds that the independent claims are not met in the -00333 proceedings, it should similarly find that the independent claims are not met in these proceedings.

To the contrary, as of writing this Response, the parties have briefed: (1) Petitioner's Motion to Dismiss (Exs. 2001, 2002, 2003); (2) Petitioner's First Motion to Stay based on its transfer motion (Ex. 2004, 2006); (3) Petitioner's Motion to Transfer Venue Under 28 U.S.C. § 1404(a) (Exs. 2005, 2007, 2008, 2009); (4) Claim Construction (Exs. 2010, 2011, 2012, 2013, 2014); (5) Petitioner's Second Motion to Stay based on its transfer motion (Exs. 2015, 2016, 2017); and (6) Petitioner's Writ of Mandamus to the Federal Circuit (Exs. 2018, 2019, 2020). In addition to this briefing, the parties have exchanged numerous discovery requests, thousands of documents, and Carbyne's source code reviewers have spent hundreds of hours reviewing source code—just to name a handful of discovery related activities that have already taken place.

By the time the institution decisions issue for all seven Petitions² (July 31 – August 7, 2024), the Parties will have completed claim construction, completed fact discovery, served final infringement and invalidity contentions, and served opening expert reports. And by the time the final written decision issues (if any) between July 31 and August 7, 2025, the district court trial will have been completed for *roughly eight months*. Instituting the seven Petitions in light of these facts goes against the

² IPR2024-00329, IPR2024-00330, IPR2024-00331, IPR2024-00332, IPR2024-00333, IPR2024-00334, and IPR2024-00507 (this IPR).

very core of the American Invent's Act and will not limit unnecessary and counterproductive litigation costs.

Substantively, Petitioner provides four grounds that allegedly teach the challenged claims. With respect to all of the grounds, Petitioner has failed to demonstrate that the reference it is using to demonstrate the “same brand” backup limitation: (1) is analogous art; (2) that a POSITA would have been motivated to combine the reference with *any* of the art in the Petition; and that a (3) that a POSITA would have had any expectation of success combining the references.

With respect to Grounds 3 and 4 specifically, Petitioner has also failed to demonstrate that Jakobsson '351 is prior art to the '105 Patent. Petitioner's priority challenge is a veiled 35 U.S.C. § 112 challenge under the guise of a “priority” challenge that should not be considered by the Board. Regardless, Petitioner has not shown that the '105 Patent is in fact lacking provisional support. To the contrary, the provisional application from which the '105 Patent claims priority explicitly includes support for the “same brand” backup as it discusses that “based on policies and the identity” of the device the backup decision made. Petitioner simply ignores this explicit remark.

II. BACKGROUND

A. '105 Patent

The '105 Patent concerns systems and methods for authentication translation. As the Patent explains, previous authentication techniques made “[p]roviding credentials to a service, whether via a mobile or other device . . . a tedious experience for a user.” Ex. 1001 ('105 Patent) at 1:43-44. Because the experience was so tedious, users would “often engage in practices such as password re-use, and/or the selection of poor-quality passwords, which render their credentials less secure against attacks.” *Id.* at 1:45-47. Thus, “improvements in authentication techniques [were] desirable.” *Id.* at 1:47-50.

The '105 Patent addresses these shortcomings by disclosing novel authentication systems and methods where “users need not type such usernames and passwords into their devices whenever required by a service. Instead, users can authenticate themselves to an ‘authentication translator’ via an appropriate technique, and the authentication translator will provide the appropriate credentials to the implicated service on the user’s behalf.” *Id.* at 3:21-26. By doing this, the system promotes better user security practices by making it easier for a user to use complex passwords.

As the '105 Patent discloses, the process begins “when a request to access a resource is received, as is an authentication input.” *Id.* at 6:50-53. For example,

suppose “[the user] wishes to sign into social networking website.” *Id.* at 6:54-55. “[The user] directs [their] web browser . . . to the social networking website.” *Id.* at 6:34-36. The “[a]uthentication translator module **132** recognizes, from the context of [the user’s] actions (e.g., that [the user] is attempting to access site **120** with [their] browser) that [the user] would like to access a particular resource.” *Id.* at 6:54-60 (emphasis in original). The authentication translator module may then prompt “[the user] (e.g., by a popup message or via a sound) to provide biometric information (e.g., to use the integrated fingerprint reader on [the user’s device]).” *Id.* at 6:55-63. Once a biometric has been supplied by the user, the supplied biometric data is compared “to the templates stored on [the user’s device].” *Id.* at 7:4-5. “If a suitable match is found . . . the username and password for the website, as stored in a vault, such as vault **220**, are retrieved from the vault” and provided to the resource. *Id.* at 7:5-8 (emphasis in original). In the ’138 Patent specification, biometrics include but are not limited to fingerprints, “facial recognition, voiceprints, or retina scan technology.” *Id.* at 3:53-54.

Further, enhancing the user authentication experience and promoting better security practices across multiple devices, the ’138 Patent discloses using a cryptographic key as the credential. This is important because as the Patent explains, a “cryptographic key [can be used] for service providers supporting stronger

authentication methods.” *Id.* at 4:14-17. Further, the ’105 discusses and claims facilitating backing up of the device to another device of the same brand. 19:29-35.

B. Petitioner’s Kesanupalli Reference Is Cumulative Of Reference’s That Have Been Previously Considered.

1. The ’105 Patent was prosecuted in light of a nearly identical Kesanupalli reference.

During prosecution of the ’105 Patent, US Patent Application 2011/0138450 (herein Kesanupalli ’450) (Ex. 2030) was provided to the Patent Office as part of an IDS by Patent Owner. *See* Ex. 1002 at 132-133 (reproduced below) (red annotations added).

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	17123018
	Filing Date	2020-12-15
	First Named Inventor	Bjorn Markus Jakobsson
	Art Unit	OPAP
	Examiner Name	Docket Central
	Attorney Docket Number	MJAKP026

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	17123018
	Filing Date	2020-12-15
	First Named Inventor	Bjorn Markus Jakobsson
	Art Unit	OPAP
	Examiner Name	Docket Central
	Attorney Docket Number	MJAKP026

U.S. PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	
	1	7780080		2010-08-24	DWEN KELLY		
	2	8776214		2014-07-08	JOHANSSON JESPER M		
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U.S. PATENT APPLICATION PUBLICATIONS							Remove
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	1	20060085944		2006-04-20	BUER MARK		
	2	20070266256		2007-11-15	SHAH YOGENDRA C		
	3	20080059804		2008-03-06	SHAH YOGENDRA C		
	4	20090191846		2009-07-30	SHI GUANGMING		

5	20110138450	2011-06-09	KESANUPALLI RAMESH						
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	1	IPR2022-00244 Claim Mapping Table for the '696 Patent. November 30, 2021							
	2	IPR2022-00244 Petition for Inter Partes Review of U.S. Patent No. 10,824,696. November 30, 2021							
	3	IPR2022-00251 Claim Mapping Table for the '512 Patent. December 1, 2021							

The art in this IDS was reviewed and considered by the examiner because references included in the IDS—Shah and Johansson (highlighted in red above)—were used as

the basis of a future rejection. *Compare* Ex. 1002 at 132 *with id.* at 90 (rejecting the pending claims over Johansson and Shah) (reproduced below).

Claims 1-3, 7-9, 11-14, and 17-22 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Shah et al., (US 20080059804 A1) **hereinafter referred to as Shah** in view of Johansson (US 8776214 B1) **hereinafter referred to as Johansson**.

When the '105 Patent finally issued, Kesanupalli '450, Shah, and Johansson were listed under the "References Cited" heading:

US 11,475,105 B2

Page 2

Related U.S. Application Data

application No. 16/773,767, filed on Jan. 27, 2020, now Pat. No. 10,929,512, which is a continuation of application No. 16/563,715, filed on Sep. 6, 2019, now Pat. No. 10,824,696, which is a continuation of application No. 16/273,797, filed on Feb. 12, 2019, now Pat. No. 10,521,568, which is a continuation of application No. 15/042,636, filed on Feb. 12, 2016, now Pat. No. 10,360,351, which is a continuation of application No. 13/706,254, filed on Dec. 5, 2012, now Pat. No. 9,294,452.

2005/0198348	A1	9/2005	Yeates	
2006/0085844	A1	4/2006	Buer	
2007/0257104	A1 *	11/2007	Owen	G06Q 20/4014 235/380
2007/0266256	A1	11/2007	Shah	
2008/0059804	A1 *	3/2008	Shah	G06F 21/41 713/186
2009/0100269	A1	4/2009	Naccache	
2009/0191846	A1	7/2009	Shi	
2010/0242102	A1	9/2010	Cross	
2011/0078771	A1	3/2011	Griffin	
2011/0138450	A1	6/2011	Kesanupalli	
2011/0205016	A1	8/2011	Al-Azem	
2011/0231651	A1	9/2011	Bollay	
2012/0110341	A1	5/2012	Beigi	
2012/0167193	A1	6/2012	Gargaro	
2014/0250079	A1 *	9/2014	Gardner	G06F 11/1453 707/646
2017/0230179	A1	8/2017	Mannan	

(60) Provisional application No. 61/587,387, filed on Jan. 17, 2012, provisional application No. 61/569,112, filed on Dec. 9, 2011.

Int. Cl.

H04L 9/40	(2022.01)
G06F 21/31	(2013.01)
G06F 21/32	(2013.01)
G06F 21/44	(2013.01)
G06F 21/12	(2013.01)

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IPR2022-00244 Petition for Inter Partes Review of U.S. Pat. No. 10,824,696. Nov. 30, 2021.

IPR2022-00251 Claim Mapping Table for the '512 Patent. Dec. 1, 2021.

IPR2022-00251 Petition for Inter Partes Review of U.S. Pat. No. 10,929,512. Dec. 1, 2021.

"Managing Authorization and Access Control", Author: unknown, Published Nov. 3, 2005, pp. 1-12, URL: <http://technet.microsoft.com/en-us/library/bb457115.aspx>.

Brands et al. Distance-Bounding Protocols. Jan. 28, 1994: <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.51.6437&rep=rep1&type=pdf>.

Hammer-Lahav, Ed. "The OAuth 1.0 Protocol", from <https://tools.ietf.org/html/rfc5849>, Apr. 2010.

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Monrose et al. Using Voice to Generate Cryptographic Keys. May 13, 2001: <https://www.cs.unc.edu/~fabian/papers/odyssey.pdf>.

Seshadri et al. Pioneer: Verifying Code Integrity and Enforcing Untampered Code Execution on Legacy Systems. Oct. 23, 2005: <https://netsec.ethz.ch/publications/papers/pioneer.pdf>.

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7,950,051	B1	5/2011	Spitz	
8,145,916	B2	3/2012	Boshra	
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2004/0107170	A1	6/2004	Labrou	
2004/0236632	A1	11/2004	Maritzen	

Ex. 1001 ('105 Patent) at 2 (red highlights added).

2. The Board has already recognized the novelty of a related patent over the Kesanupalli family of references.

The Board has previously affirmed the novelty of the '512 Patent (a related patent) over the Kesanupalli '450 reference in a separate IPR proceeding. *See Samsung Electronics Co., Ltd. et al v. RightQuestion, LLC*, IPR2022-00251, Paper 17 (PTAB June 9, 2022) (herein the “Samsung IPR”) (institution denial on the merits). In that proceeding, the Petitioner (Samsung) failed to demonstrate that the Kesanupalli '450 reference disclosed multiple claim limitations related to the '512 Patent. *See id.* at 23-26 (discussing that the art failed to show a restricted interface between the first and second processor); *id* at 36-40 (discussing how the Petition failed to demonstrate that the art showed a second processor performing a secure backup).

3. Patent Owner has prosecuted multiple patents over Kesanupalli '450.

The following patents are continuations of '512 Patent:

- 11,475,105 (Ex. 1001) (the patent at issue in this Petition);
- 11,514,138 (Ex. 2026);
- 11,841,929 (Ex. 2027); and
- 11,556,617 (Ex. 2029).

As part of the prosecution of each continuation, the proceedings from the Samsung IPR, including the Samsung IPR Petition and art (including the

Kesanupalli '450 reference), were submitted to the Patent Office are now cited on the face of these patents under the "References Cited" heading:

US 11,514,138 B1

Page 2

Related U.S. Application Data

Feb. 12, 2016, now Pat. No. 10,360,351, which is a continuation of application No. 13/706,254, filed on Dec. 5, 2012, now Pat. No. 9,294,452.

(60) Provisional application No. 61/587,387, filed on Jan. 17, 2012, provisional application No. 61/569,112, filed on Dec. 9, 2011.

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IPR2022-00244 Claim Mapping Table for the '696 Patent. Nov. 30, 2021.

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IPR2022-00251 Claim Mapping Table for the '512 Patent. Dec. 1, 2021.

IPR2022-00251 Petition for Inter Partes Review of U.S. Pat. No. 10,929,512. Dec. 1, 2021.

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Ex. 2026 ('138 Patent) at 2.

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Related U.S. Application Data

continuation of application No. 16/773,767, filed on Jan. 27, 2020, now Pat. No. 10,929,512, which is a continuation of application No. 16/563,715, filed on Sep. 6, 2019, now Pat. No. 10,824,696, which is a continuation of application No. 16/273,797, filed on Feb. 12, 2019, now Pat. No. 10,521,568, which is a continuation of application No. 15/042,636, filed on Feb. 12, 2016, now Pat. No. 10,360,351, which is a continuation of application No. 13/706,254, filed on Dec. 5, 2012, now Pat. No. 9,294,452.

(60) Provisional application No. 61/587,387, filed on Jan. 17, 2012, provisional application No. 61/569,112, filed on Dec. 9, 2011.

(51) **Int. Cl.**

G06F 21/44

(2013.01)

G06F 21/12

(2013.01)

(52) **U.S. Cl.**

CPC **H04L 63/10** (2013.01); **H04L 63/20** (2013.01); **H04L 63/0281** (2013.01); **H04L 63/0869** (2013.01)

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Ex. 2027 ('929 Patent) at 2.

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Page 2			
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(51) Int. Cl.			
<i>G06F 21/44</i> (2013.01)			
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Ex. 2029 ('617 Patent) at 2.

C. Kodama discloses an “electronic appliance service system.”

Kodama is titled “Electronic appliance service system” (Ex. 1010). Petitioner attempts to paint Kodama as relevant to the '105 Patent, the other asserted art, and this Petition. Pet. 16. But no amount of paint can cover up what Kodama truly teaches: a method of backing up appliances, such as devices used to “record[] tv programs,” at a “repair plant.” Ex. 1010 at [0002]. In fact, the main goal of Kodama is to mitigate access of the user’s data by the repair plant employees. *Id.* at Abstract (“The risk of a third party referring to or using backup data without authorization upon restoring such backup data in an HDD recorder is *mitigated.*”) (emphasis

added). Kodama has no disclosure of biometric information, cryptography, or many other relevant aspects of the '105 Patent and asserted references.

D. POSITA

Patent Owner has applied Petitioner's POSITA for the sake of this Response. Pet. 8. This Response does not depend on this skill level. *See* Section III, *infra*. Patent Owner reserves the right to argue in favor of different level of skill should this Petition be instituted.

E. Claim Construction

This Response does not depend on any claim construction positions. Pet. 8-9; *See also* Section III, *infra*. Patent Owner reserves the right to address claim construction should this Petition be instituted.

F. Claim Table

The Petition challenges dependent claims. *See* Pet. 9. Because the Petitioner cannot establish that the independent claims are met, the Petitioner cannot show that the dependent claims are met. For the sake of this analysis, Patent Owner will use Petitioner's limitation labels reproduced below:

[1.0]	A system, comprising:
[1.1]	one or more processors configured to:

[1.2]	receive, at a first device, a request to access a resource external to the first device, wherein the resource external to the first device is associated with a user;
[1.3A]	access at least one record stored on the first device, the at least one record including authentication information associated with the user and credential information associated with the external resource to which the user has requested access
[1.3B]	wherein the credential information comprises a cryptographic key;
[1.4]	receive authentication input from the user;
[1.5]	determine that the authentication input from the user matches the authentication information associated with the user included in the at least one record stored on the first device;
[1.6]	retrieve at least a portion of the credential information from the at least one record stored on the first device;
[1.7]	facilitate access of the user to the external resource at least in part by transmitting, on behalf of the user, from the first device, output based at least in part on the at least portion of the credential information retrieved from the at least one record, wherein the user of the first device is

	granted access to the external resource based at least in part on the output transmitted from the first device on behalf of the user; and
[1.8]	based at least in part on the first device being a same brand as a second device, initiate a backup, to the second device, of at least a portion of the at least one record; and
[1.9]	a memory coupled to the processor and configured to provide the processor with instructions.

III. ARGUMENT

A. The Petition Should Be Denied Under *Fintiv* As The Issues Presented By This Petition And Petitioner's Six Other Petitions Will Be Resolved First In The Underlying District Court Case.

Petitioner has taken a single district court litigation and sought to turn it into seven proceedings before this Board, which would issue final written decisions (if any) roughly *eight months* after the scheduled trial. Far from simplifying matters, Petitioner and its seven IPR Petitions needlessly complicate the dispute between the parties. The Board should use its discretion to deny institution of Petitioner's seven IPR petitions because the district court will resolve all issues raised in the Petitions roughly eight months prior.

As Director Vidal has pointed out, "Congress designed the America Invents Act (AIA) post-grant proceedings 'to establish a more efficient and streamlined

patent system that will improve patent quality and limit unnecessary and counterproductive litigation costs.” Ex. 2022 at 1 (citing H.R. Rep. No. 112- 98, pt. 1, at 40 (2011), 2011 U.S.C.C.A.N. 67, 69; *see* S. Rep. No. 110- 259, at 20 (2008)). Instituting Petitioner’s seven IPR petitions is directly contrary to this goal. This is because “[p]arallel district court and AIA proceedings involving the same parties and invalidity challenges *can increase, rather than limit*, litigation costs.” Ex. 2022 at 1 (emphasis added).

Here, instituting the seven IPR petitions, which will have the same outcome as the *single* district court case (upholding the validity or invalidating the patents), will dramatically increase the litigation costs of the parties over a district court case that has already been expensive for the parties, the district court, and the Federal Circuit. Notably, the district court case is considering the exact same references and will also consider more invalidity grounds, such as system references that allegedly could not have been raised and other invalidity grounds such as 35 U.S.C. §§101 and 112. It is a fallacy to consider Petitioner’s seven petitions as streamlining the dispute between the parties. The Board should thus use its discretion to deny institution.

Under 35 U.S.C § 314(a), the Board has discretion to deny a petition based on the status of a related litigation. The Board considers six factors to determine whether efficiency, fairness, and the merits support denial:

Factor 1: whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;

Factor 2: proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;

Factor 3: investment in the parallel proceeding by the court and the parties;

Factor 4: overlap between issues raised in the petition and the parallel proceeding;

Factor 5: whether the petitioner and the defendant in the parallel proceeding are the same parties; and

Factor 6: other circumstances that impact the Board's exercise of discretion, including the merits.

Apple v. Fintiv, IPR2020-00019, Paper 11 at 5-6 (PTAB March 20, 2020) (precedential). As discussed below, each of the six *Fintiv* factors supports the Board denying institution. The current advanced state of the parallel district court case, as well as district court's mooted of the previous stay motions, favors denial of the Petition. By the time the Board will issue an institution decision across all seven IPR petitions (expected July 31-August 7), claim construction will have been briefed and argued to the district court, fact discovery will have closed, and opening expert

reports will have been exchanged. Moreover, the parties will already have completed venue discovery, venue briefing, venue mandamus briefing, motion to dismiss briefing, and briefing on multiple stay motions. The district court trial is scheduled for December 2024, roughly eight months *before* the earliest of the Final Written Decisions (if any) for the seven IPR petitions would be issued. *See* Ex. 1028 (WDTX Scheduling Order). As explained below, the district court is unlikely to stay a trial that is already scheduled to be complete well before a final written decision on any petition would be issued by the Board.

There is no argument that can be offered that supports instituting seven IPRs—that would issue narrow invalidity rulings under 35 U.S.C. §§ 102 and 103 months after the district court trial—rather than letting the parties resolve all these issues in a single, quicker district court case that is already scheduled to be complete in December of this year. Accordingly, the Board should deny institution to maintain the goals of efficiency and efficacy. *See General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16-17 (PTAB Sept. 6, 2017).

Factor 1: Judge Albright has not granted Petitioner’s multiple stay requests and he will not grant a stay under these circumstances. Petitioner states that this factor is neutral. Pet. 74. However, Petitioner has failed to consider the totality of the evidence. This Board has previously held that “[i]n the absence of specific evidence, we will not attempt to predict how the district court in the related district

court litigation will proceed because the court may determine whether or not to stay any individual case.” *Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB June 16, 2020) (informative) (emphasis added). Not only does Petitioner provide no evidence, as Patent Owner demonstrates below, all the evidence points to a stay not being entered by Judge Albright even if all of the petitions are instituted.

Petitioner has filed multiple motions to stay the district court litigation and *none* of them have been granted. *See* Exs. 2004 and 2015. Moreover, even if instituted, the timing and advanced stage of litigation indicates that Judge Albright is highly likely to deny a motion to stay where trial will be done more than eight months before a final written decision. As just one example, in *Cloud Change* Judge Albright denied a stay where *all* of the asserted claims in the district court case were instituted, and a final decision was set to issue one month after the trial date. *See* Ex 2023 (*Cloud of Change, LLC v. Lightspeed POS Inc.*, Case No. 6-21-cv-01102, Dkt. 80 at 1-3 (W.D. Tex. May 15, 2023) (Albright, J.) (The Board instituted IPRs on all claims in the underlying district court case and Judge Albright denied the motion to stay when the trial was set for September 2023 and the final written decisions were set to issue in November 2023). And in *Sonrai*, Judge Albright denied a motion to stay where “[t]he Court expects to reach a verdict in this Action by the end of February 2023 . . . while the PTAB is expected to issue its final written decision . . .

IPR by March 4, 202[3].” Ex. 2024 (*Sonrai Memory Ltd. v. LG Elecs. Inc.*, No. 6:21-CV-00168-ADA, 2022 WL 2307475, at *1 (W.D. Tex. June 27, 2022) (Albright, J.).

The Board has previously rejected arguments similar to Patent Owner’s on the grounds that it will not “speculate.” *See, e.g., Samsung Electronics Co., Ltd. v. Mojo Mobility Inc.*, IPR2023-01091, Paper 11 at 11 (PTAB Jan. 8, 2024) (denying institution). However, at this point given Petitioner’s prior multiple stay requests and the precedent set by Judge Albright even when IPRs are instituted, there is no speculation based on the facts in this case and Judge Albright’s history. And Petitioner has presented no evidence to the contrary. The underlying district court trial will occur *roughly eight months prior to any final written decision*, and even if all seven Petitions are instituted, Judge Albright won’t stay the underlying case. Factor 1 thus favors denial.

Factor 2: the single district court case will resolve all of the issues presented in the seven petitions (and more) roughly eight months before any final written decision. The Board generally denies institution when the trial date is months before the projected statutory deadline of the Board’s final written decision (FWD). *Fintiv*, IPR2020-00019, Paper 11 at 9) (“If the court’s trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution.”). Trial is set for December 4, 2024, which would be *roughly eight months* before the earliest expected date of a FWD (July 30-August 7,

2025). This factor weighs heavily in favor of denial.

The Board regularly finds a period of time less than eight months between the expected date of the FWD and trial supports denial. *See, e.g., id.* (5-6 months based on the time-to-trial evidence); *Samsung Electronics Co., Ltd. v. Mojo Mobility Inc.*, IPR2023-01094, Paper 11 at 8 (PTAB Feb. 9, 2024) (“As the Texas Litigation is scheduled to go to trial in August 2024, approximately six months before a final written decision would be entered, we determine that Factor 2 weighs in favor discretionary denial.”); *NHK Spring Co. v. Intri-Plex Techs., Inc.*, No. IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential) (denying a petition 35 U.S.C. § 314(a) where institution would have led to a final written decision approximately six months after a scheduled trial in a pending civil action involving the same patent); *Satco Products, Inc. v. The Regents of the University of California*, IPR2021-00794, Paper 14 at 19 (PTAB Nov. 10, 2021) (five months); *Maxlite, Inc. v. Jiaxing Super Lighting Electric Appliance Co., Ltd.*, IPR2020-00208, Paper 32 at 5 (PTAB Oct. 12, 2021) (four months); *Stanley Black & Decker, Inc., et al. v. Zircon Corp.*, IPR2020-01572, Paper 10 at 12 (PTAB April 19, 2021) (three months); *Next Caller, Inc. v. TrustID, Inc.*, IPR2019-00961, Paper 10 at 14-15 (PTAB Oct. 16, 2019) (three months); *E-One, Inc. v. Oshkosh Corp.*, IPR2019-00161, Paper 16 at 6 (PTAB May 15, 2019) (one month). Thus, Factor 2 favors denial.

Factor 3: there has and continues to be significant investment by the parties

in the district court litigation. The Board has used its discretion to deny institution when, as here, there is significant investment in the parallel district court proceeding. Petitioner would have this Court believe this case is in its “early stages” and that only preliminary contentions have been exchanged and a *Markman* hearing held. Pet. 75. Petitioner’s framing of the case downplays the sheer amount of time, energy, and resources spent by the parties, the district court, *and the Federal Circuit*.

As alluded to in the opening paragraphs of this Response, the underlying district court case is not a typical patent litigation. The Parties have already:

1. completed briefing on Petitioner’s motion to dismiss;
2. completed briefing Petitioner’s motion to transfer;
3. completed venue discovery related to Petitioner’s motion to transfer;
4. prepared and exchanged initial infringement and invalidity contentions;
5. prepared and exchanged final infringement and invalidity contentions;
6. completed roughly six months of fact discovery (with fact discovery set to close on July 3, 2024) (*see* Ex. 1028 at 3);
7. completed briefing and argued claim construction;
8. completed briefing on Petitioner’s first motion to stay;
9. completed briefing on Petitioner’s second motion to stay; and

10. completed briefing on Petitioner’s writ of mandamus to the Federal Circuit on its motion to transfer.³

The Board consistently finds this factor favors denial where the underlying litigation is much less advanced. *See, e.g., Samsung Electronics Co., Ltd. v. Mojo Mobility Inc.*, IPR2023-01094, Paper 11 at 9 (PTAB Feb. 9, 2024) (“Although there is still much work to be done on the Texas Litigation” including claim construction briefing and a *Markman* hearing “we find that this factor favors exercising our discretion to deny institution”). This case is anything but in its “early stages.” Accordingly, the Board should find that Factor 3 weighs in favor of denial.

Factor 4: there is significant overlap between issues raised in the petition and in the parallel proceeding. “[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, th[at] fact has favored denial.” *Fintiv*, IPR2020-00019, Paper 11 at 12. Petitioner challenges the same claims in its Petition—and across the six Petitions—that it does in its invalidity contentions at the district court. *See* Ex. 2025 In fact, Petitioner relies on the same principal references in the Petition as it does in the parallel litigation. *See generally* Ex. 2025 at 3. Thus, the Petition includes substantial overlap with the claims and evidence asserted in the parallel litigation.

³ *See, e.g.,* Exs. 2018, 2019, 2020.

In addition, Petitioner’s stipulation does not mitigate the overlap between the district court litigation and the Petition. Pet.73; *see also* 2035 at 4. Petitioner originally offered a stipulation that fell well short of the *Sotera* standard. *See* Pet. 72-73. Following the “denial, on March 19, 2024, of Apple’s petition for writ of *mandamus* to direct U.S. District Court for the Western District of Texas to transfer Patent Owner’s infringement case against Apple to the U.S. District Court for the Northern District of California” (Ex. 2035 at 4) Petitioner moved the Board to add a new *Sotera* style stipulation. Ex. 2036 at 1-2. Petitioner’s *Sotera* stipulation is thus not being added to simplify the proceedings but in a last gasp effort to have these proceedings instituted prior to the upcoming Western District of Texas trial scheduled for December 2024 that Petitioner was not expecting when it filed its original stipulations.

Petitioner’s attempts to simplify the proceedings now ring hollow especially given that Petitioner failed to respond to multiple requests for clarification on the scope of the stipulation. Given that the district court case will likely go to trial in December 2024, regardless of whether the seven IPR petitions are instituted, Patent Owner requested clarification *several* times on whether Petitioner’s stipulation would preclude it from raising the prior art in the petition in the district court case (assuming that the petitions are instituted and the district court case is not stayed). *See* Ex. 2035 at 2 (“In the meantime, can you please let us know if Apple’s

stipulations will prevent it from raising the prior art in the petitions in the district court litigation if the IPRs are instituted and the district court litigation is not stayed?”), *id.* at 1 (“This response does not answer the question which is material to our response”); *id.* (“Patent Owner opposes Petitioner’s stipulations. In the correspondence leading up to this Petitioner’s request, Petitioner would not confirm that it would not raise the prior art in the Petitions in the district court litigation if the Petitions are instituted and the district court litigation is not stayed. Without that confirmation, it is unclear what the new stipulations would accomplish.”). Each time, Petitioner ignored the request and still has not taking a clear position on whether it will be precluded from raising this art in the district court.

Regardless of Petitioner’s actions, Petitioner’s stipulation does not in fact guarantee the reduction of *any* duplicate effort. Petitioner has already positioned itself to combine the petitioned art with art that Petitioner will argue it “could ***not*** have reasonably been raised” in the IPR petitions, such as system art, in the district court in order to avoid the consequences of its stipulation. For example, Petitioner could allege in the district court a combination of a system art reference such as the “UPEK system” in combination with the exact the grounds—Kesanupalli, Kodama, and Cheng—in this Petition.

Prior Art Combinations for the '105 Patent	
'105 Primary References	Alone and/or with one or more of the following (collectively "'105 Secondary References"):
UPEK System (<i>see</i> Ex. A-01)	UPEK System (<i>see</i> Ex. A-01)
Sahara Slate Tablet (<i>see</i> Ex. A-02)	Sahara Slate Tablet (<i>see</i> Ex. A-02)
Aegis Bio (<i>see</i> Ex. A-03)	Aegis Bio (<i>see</i> Ex. A-03)
Johansson (<i>see</i> Ex. A-04)	Johansson (<i>see</i> Ex. A-04)
Buer (<i>see</i> A-05)	Buer (<i>see</i> Ex. A-05)
Kesanupalli (<i>see</i> A-06)	Kesanupalli (<i>see</i> Ex. A-06)
Digital Persona Pro (<i>see</i> Ex. A-07)	Digital Persona Pro (<i>see</i> Ex. A-07)
Jazayeri (<i>see</i> Ex. A-08)	Jazayeri (<i>see</i> Ex. A-08)
The '351 patent (<i>see</i> Ex. A-09) ⁴³	Shin (<i>see</i> Ex. A-02)
	Sharma (<i>see</i> Ex. A-02)
	Dropbox (<i>see</i> Ex. A-02)
	LastPass (<i>see</i> Ex. A-02)
	Keeper (<i>see</i> Ex. A-02)
	KeePass (<i>see</i> Ex. A-02)
	Pearson (<i>see</i> Ex. A-02)
	Robinson (<i>see</i> Ex. A-02)
	Shi (<i>see</i> Ex. A-02)
	Brown (<i>see</i> Ex. A-02)
	Challener (<i>see</i> Ex. A-02)
	Cheng (<i>see</i> Ex. A-02)
	Sumner (<i>see</i> Ex. A-02)
	Davis (<i>see</i> Ex. A-02)
	Shen (<i>see</i> Ex. A-02)
	Karimi (<i>see</i> Ex. A-02)
	Avetisov (<i>see</i> Ex. A-02)
	Chandrasekaran (<i>see</i> Ex. A-02)
	TLS references (<i>see</i> Ex. A-02)
	Swami (<i>see</i> Ex. A-02)
	AutomatedBuildings (<i>see</i> Ex. A-02)
	Windows 7 (<i>see</i> Ex. A-02)
	TPM (<i>see</i> Ex. A-02)
	HTTPS Wiki (<i>see</i> Ex. A-02)
	WesternDigital WD ShareSpace 8 (<i>see</i> Ex. A-02)
	Hubner (<i>see</i> Ex. A-02) ⁴⁴
	Kodama (<i>see</i> Ex. A-02) ⁴⁵
	Landry (<i>see</i> Ex. A-02) ⁴⁶
	Craswell (<i>see</i> Ex. A-02) ⁴⁷
	APA

Ex. 2025 at 3 (red annotations added).

There is no reason to believe Petitioner will not try to make an end-around its stipulation. Petitioner's district court invalidity contentions make clear that there is no limit to combinations of art ("alone and/or with one or more of the following")

and Petitioner's failure to clarify the extent of its stipulation despite multiple requests from Patent Owner, demonstrate that Petitioner does not want to have to address the issue in writing.

Accordingly, Petitioner's statements that its *Sotera* stipulation is dispositive of the *Fintiv* analysis are misplaced and misleading. Without further clarification from Petitioner, it cannot be said that Petitioner's stipulation will guarantee that there is no duplication of efforts between the district court case and the IPR proceedings. Petitioner is using its late "stipulation" to game the *Fintiv* process and get two bites at the invalidity apple. Thus, this factor weighs in favor of denying the Petition.

Factor 5: the petitioner and the defendant in the parallel proceeding are the same party. Factor 5 weighs in favor of denial because both Parties to this proceeding are the same parties in the related district court litigation. *Fintiv*, IPR2020-00019, Paper 11 at 15 ("Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial."). This is not a controversial factor; however, Petitioner attempts to fold this into the Factor 2 analysis. *See* Pet. 74-75. Patent Owner is unaware of any authority from this Board, and Petitioner does not cite any, that supports analyzing Factor 2 and Factor 5 together.

Factor 6: the merits of the Petition are weak. The final factor weighs in favor of denial because there is no "compelling challenge" of invalidity on the merits of

the Petition. Interim Procedure, 4 (“compelling, meritorious challenges will be allowed to proceed at the PTAB even where district court litigation is proceeding in parallel”). As shown in the following sections, Petitioner’s arguments on the merits do not meet the high standard required of an invalidity challenge. *Id.* (“Compelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.”); *see also Vector Flow, Inc. v. HID Glob. Corp.*, IPR2023-00353, Paper 8 at 23-24 (PTAB July 27, 2023) (same).

B. Grounds 1-2 Fail For Multiple Reasons.

1. Petitioner’s expert declaration should be given little weight for the motivation to combine Kesanupalli, Cheng, and Kodama.

The Board has previously denied institution in part because the Petitioner’s expert declaration was given no probative weight. For example, in *Kinetic Technologies*, the Board denied institution, in part because the petitioner’s expert declaration was given “no probative weight” because it contained arguments that were identical to arguments set forth in the petition and merely added the phrase “it is my opinion that,” and the Board found that “merely repeating an argument from the Petition in the declaration of a proposed expert does not give that argument enhanced probative value.” *See Kinetic Technologies, Inc. v. Skyworks Solutions, Inc.*, IPR2014-00529, Paper 8 at 14-15 (PTAB Sep. 23, 2014). In *Volkswagen*, the

Board denied institution, in part because the petitioner’s expert declaration “provide[d] little additional probative value” because it contained arguments that were identical to arguments set forth in the petition. *Volkswagen Group of America, Inc. v. StratosAudio, Inc.*, IPR2021-00717, Paper 12 at 36-38 (PTAB Nov. 12, 2021); *see also Facebook, Inc. v. Voxer IP LLC*, IPR2021-00399, Paper 8 at 22 (PTAB July 21, 2021) (“Petitioner cites [Expert’s] declaration to support is arguments. . . [Expert’s] arguments, however, mirror the arguments set forth in the Petition and do not provide further support for Petitioner’s position that Munje discloses or suggests ‘[a]n embeddable communications software module that allows a software application to access a communications system.’ Thus, Petitioner fails to show how Munje discloses or suggests this limitation”).

Here, Petitioner’s expert’s (Ex. 1003) analysis of the motivation to combine and the reasonable expectation of success is nearly identical to the analysis in the Petition. To the extent there are *minor* differences, those differences are just in wording and some of the paragraphs are almost replicas. *Compare* Pet. 19-23 with Ex. 1003 at ¶¶81-91 (the first and last paragraphs are reproduced below).

Pet. 16-20	Expert Decl. (Ex. 1003) ¶¶81-91
Pet 16) POSITA would have been motivated to apply Cheng’s data backup	81. A POSITA would have been motivated to apply Cheng’s teachings of

teachings to Kesanupalli's device including biometric information and credentials for user authentication. APPL-1003, ¶¶81-90. Kesanupalli's device and its stored biometric information and credentials, which are a user's personal data, combined with Cheng's data backup teachings would produce obvious, beneficial, and predictable results of reducing the need to recreate the user's personal data when using a new device (e.g., a device replacing one having been lost or stolen). Id. POSITA would have been further motivated to apply Kodama's teachings of ensuring devices implementing the backup are the same brand, which provides the obvious, beneficial, and predictable result of	backing up data from storage of an electronic device, such as the device used in Kesanupalli that stores user's biometric information and credentials for user authentication to resources such as websites, to a second device. Kesanupalli's stored biometric information and credentials are a user's personal data, and applying Cheng's back up teachings would produce the obvious, beneficial, and predictable results of reducing the need to recreate the user's personal data when using a new device, such as on a device replacing a lost or stolen device. Kodama provides additional details as to implementing a backup of data from an electronic data from a first device to a second device, including ensuring the
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mitigating compatibility arising between manufacturers. Id.	devices are a same brand, which provides the obvious, beneficial and predictable result of mitigating complexity, compatibility and security issues.
Pet. 19) Finally, POSITA would have had reasonable expectations of success in adding backup feature taught by Cheng as enhanced by Kodama in a biometric authentication system as taught by Kesanupalli because Cheng-Kodama are similarly directed to handling of personal information including biometric authentication information in a secure manner. APPL-1003, ¶90. Adding a backup feature would merely have been applying a known technique to a known device (method, or product) that is ready for	90. A POSITA would have had reasonable expectations of success in adding backup feature such as taught by Cheng as enhanced by Kodama in a biometric authentication system such as taught by Kesanupalli, as Cheng and Kodama are similarly directed to handling of personal information including biometric authentication information in a secure manner. Adding a backup feature would merely have been applying a known technique to a known device (method, or product) that ready for improvement to yield

improvement to yield predictable results. Backup features are implemented by routine software executed on generic processing components, which would have been a predictable application relative to Kesanupalli's system and devices. Id. And enhancement of the backup feature according to Kodama is but a small addition of a brand check and supporting data to that routine software. Id.	predictable results. Indeed, the backup feature is implemented by routine software executed on generic processing components, which would have been a predictable application relative to Kesanupalli's system and devices. And enhancement of the backup feature according to Kodama is implemented by a small addition of one or more fields to that routine software executed on generic processing components.
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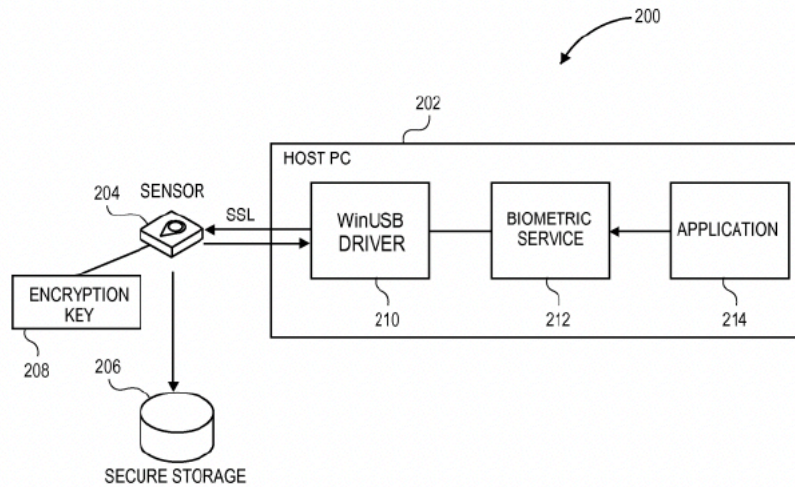
This Board has previously held in situations like this when an expert adds nothing beyond what is already found in the Petition, that the expert testimony should be given little to no weight. *Samsung Electronics Co., Ltd. et al v. RightQuestion, LLC*, IPR2022-0025, Paper 17 at 24 (PTAB June 9, 2022) (“Petitioner’s declarant also makes this same statement verbatim, without more, and with no further explanation or additional citations to evidence. . . We give such conclusory, unsupported assertions by Petitioner’s expert little or no weight.”); *see also In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he

Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”); *Rohm and HaasCo. v. Brotech Corp.*, 127 F.3d 1089, 1092 (Fed. Cir. 1997) (noting that a fact finder is not required to “credit the unsupported assertions of an expert witness”); 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”). Accordingly, Petitioner’s expert’s support for its motivation to combine and reasonable expectation of success analysis should be given little to no weight and the Board should consider each of the following arguments in light of that.

2. Petitioner has not shown that a POSITA would have been motivated to combine Kesanupalli and Cheng given Cheng’s contradictory teachings about not needing to protect biometric data.

Petitioner’s motivation to combine Kesanupalli and Cheng disregards the actual teachings of the references, which could not have a more fundamentally different understanding of the importance of protecting biometric data. Kesanupalli uses limited access and secure storage to protect biometric templates; whereas Cheng teaches that biometrics are “substantially difficult if not impossible to replicate” so there is really no need to protect them. Petitioner has not demonstrated that a POSITA would have combined these references given their conflicting understanding of biometrics and the need to protect them.

Beginning with Kesanupalli, Petitioner states that “[t]o protect user credentials, [Kesanupalli discloses that] ‘[t]he fingerprint template and user credentials are [] stored in a secure storage of the user’s device.’” Pet. 12. Petitioner then states that “FIG. 2 illustrates an example system 200 in which user enrollment and authentication processes are performed using a biometric sensor 204, secure storage 206 and a Host PC 202.” *Id.* (Fig. 2 reproduced from Pet. 13 below).



Petitioner then explains that “[i]n [Kesanupalli’s] authentication process, sensor 204 receives a biometric input from a user and releases the user’s credentials from secure storage 206 upon a successful match of the input with the user’s stored biometric template.” Pet. 13.

Petitioner later explains that the biometric template is also stored in the secure storage 206. Pet. 25 (“Kesanupalli describes a user’s enrollment process in an

external resource such as a website where the user's credential (key) and biometric template (fingerprint template) associated with the user and the website are stored in the first device (in secure storage 206)."). And unsurprisingly Petitioner's expert agrees that the template would be stored secure storage. Ex. 1003 at ¶108 ("The fingerprint template and user credentials are then stored in a secure storage device."). Petitioner further states that, Kesanupalli stores the biometrics in secure storage to "protect [the biometrics] from unauthorized use." *See* IPR2024-00333, Paper 1 (Petition) at 52 ("POSITA would understand secure storage is protected from unauthorized use and by describing storage as 'secure storage,' Kesanupalli indicates its storage is protected from unauthorized use. APPL-1003, ¶176. FIG. 2 confirms this as use and access to secure storage 206 is controlled by sensor 204, and the storage is not directly accessible by others (e.g., application 214 executing on Host PC 202); for example, the user credential in the storage cannot be accessed except by sensor 204 when verifying a match of biometric input"). Thus, per Petitioner, Kesanupalli teaches a system where biometrics are put in "secure storage" and is "protected from unauthorized access" and in fact is only accessible by sensor 204.

Cheng on the other hand teaches a completely different understanding of biometric security.⁴ Rather than put the biometric templates in a secure storage, Cheng openly admits there is no need to restrict what can access a user's biometrics because biometrics are "substantially difficult if not impossible to replicate." Ex. 1008 (Cheng) at [0046] ("since it is substantially difficult if not impossible to replicate the user's biometrics information due to the nature of each individual's uniqueness."). In fact, Cheng states that a user doesn't even need to report their old device stolen or lost due to this uniqueness. *Id.*

Petitioner disregards the actual teachings of the references and instead uses the claims as a map to achieve its desired result. Petitioner points to general concerns such as a device getting "lost, damaged, or otherwise requir[ing] replacement" (Pet. 14, 17, 18) but none of these reasons are specific to Cheng or Kesanupalli. In fact, the same reasons could be applied to any number of references with a "back up" function. Given the disclosures about not needing to protect biometrics, Petitioner's generic reasoning to add backup software to a mobile device does not meet its burden. *See In re NuVasive, Inc.*, 842 F.3d 1376, 1381–82 (Fed. Cir. 2016)

⁴ This might be due to the fact that Cheng is from 2003 and is relatively early in time compared to the other references in the Petition.

(“combin[ing] references must be thorough and searching, and the need for specificity pervades.”) (internal quotations and citations omitted).

Next, Petitioner states that somehow Cheng’s backup is more “reliable and secure” than other backups but points to nothing in the record beyond a generic “*Id.*” cite which refers to a block citation of multiple exhibits. Pet. 19. This is both unhelpful and improper. *See* 35 U.S.C. § 312(a)(3) (requiring that an IPR petition to identify “with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim.”); *see also* 77 Fed. Reg. 48,756 (Aug. 14, 2012) (PTAB’s Trial Practice Guide) (the Petitioner should “avoid submitting a repository of all the information that a judge could possibly consider, and instead focus on concise, well-organized, easy-to-follow arguments supported by readily identifiable evidence of record.”).

Kesanupalli (2010) and Cheng (2003) come from different points in time and reflect a different understanding of the need to secure a user’s biometric data. Pet. 10 (discussing the prior art dates of the references). Without the claims as map, a POSITA would not have even found these references—let alone combined them. Accordingly, Petitioner has failed to show that a POSITA would have been motivated to combine Kesanupalli and Cheng.

3. Petitioner has not shown that a POSITA would have been motivated to combine Kesanupalli/Cheng with Kodama.

Petitioner's Grounds 1-2 rely on combining Kesanupalli, Cheng, and Kodama. For the reasons discussed below, Petitioner has failed to show that a POSITA would have made that combination.

a) Petitioner has not demonstrated that Kodama is analogous art to the '105 Patent.

Kodama is not analogous art to the '105 Patent, Kesanupalli or Cheng. "Analogous art is merely a threshold inquiry as to whether a reference can be considered in an obviousness analysis." *Johns Manville Corp. v. Knauf Insulation, Inc.*, IPR2018-00827, Paper 9 at 13-14 (PTAB Oct. 16, 2018). There are two criteria for determining whether prior art is analogous: "(1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the problem with which the inventor is involved." *In re Clay*, 966 F.2d 656, 658–59 (Fed. Cir. 1992). *See also Securus Techs., Inc. v. Global Tel*Link Corp.*, 701 F. App'x 971, 977 (Fed. Cir. 2017) ("a broad characterization of [prior art references] as both falling within the same alleged field . . . without more, is not enough for [Petitioner] to meet its burden of presenting a sufficient rationale to support an obviousness conclusion").

The Federal Circuit has instructed that the requirement that the art be analogous serves to ensure that patentability determinations will not be based on hindsight. *In re Kahn*, 441 F.3d 977, 986–87, (Fed. Cir. 2006). The Board should mind the Federal Circuit’s concerns and pay close attention as Petitioner attempts to combine a “TV Recorder” (Kodama) repair plant system with various biometric authentication systems (’105 Patent, Kesanupalli, Cheng). As demonstrated below, Petitioner’s conclusory remarks as to the analogous nature of Kodama do not meet its burden as to either criterion.

i. Criteria 1: Kodama is not in the same field as the ’105 Patent.

Kodama is not in the same field of endeavor as the ’105 Patent. The ’105 Patent is directed to a system for biometric authentication. *See* Section II.A, *supra*. Kodama is directed to backing up of a TV programming recorder at a repair plant where a user needs to provide their password to a “third-party” so that the third-party can fix the programming recorder. Ex. 1010 (Kodama) at [0002], [0006]. In fact, the main goal of Kodama is mitigating the risk of the repair plant employee accessing the user’s data in the repair process. *Id.* at Abstract (“*The risk of a third party referring to or using backup data without authorization upon restoring such backup data in an HDD recorder is mitigated.* . . . Since the user will directly receive an email from the online backup service system regarding who restored which data at what

time, such user will be able to audit the data restoration process independently from the person recovering the data.”) (emphasis added); [0007] (“Thus, an *object of the present invention* is to provide an electronic appliance service system capable of *mitigating the risk of a third party referring to or using backup data without authorization* upon restoring such backup data in an electronic appliance.”) (emphasis added); [0009] (“According to the present invention, it is possible to *mitigate the risk of a third party referring to or using backup data without authorization* upon restoring such backup data in an electronic appliance.”) (emphasis added). Kodama has *nothing* to do with biometric authentication. In fact, the term biometric does not even appear in the Kodama reference.⁵

Petitioner’s use of Kodama is exactly what the Federal Circuit has warned against. Petitioner likely could not identify a reference in the field of biometric authentication that included the “same brand” limitation that it is using Kodama for. *See* Pet. 17, 31. So, Petitioner turned to Kodama and attempted to shoehorn it into the field of biometric authentication. However, no amount of evidence could

⁵ Petitioner has previously described the ’105 Patent as “facilitating access to resources based on authenticating a user’s identity.” Ex. 2001 at 22 (Petitioner’s district court motion to dismiss). Kodama has nothing to do with gaining access to resources based on authenticating a user’s identity.

overcome the fact that at its core, Kodama is directed to helping users mitigate repair plant employee's gaining access to their TV recorder data while it is getting backed up and restored.

ii. Criteria 2: Petitioner has not established that Kodama is reasonably pertinent to the problem being solved by the '105 Patent.

Kodama is likewise not relevant to the problem the '105 Patent was trying to fix and Petitioner does not argue otherwise. *See* Pet. 16-20. As discussed in the Background section, (Section II.A, *supra*), previous authentication techniques made “[p]roviding credentials to a service, whether via a mobile or other device . . . a tedious experience for a user.” Ex. 1001 ('105 Patent) at 1:43-45. Because the experience was so tedious, users would “often engage in practices such as password re-use, and/or the selection of poor-quality passwords, which render their credentials less secure against attacks.” *Id.* at 1:45-47. Thus, “improvements in authentication techniques [were] desirable” and this was the goal of the '105 Patent. *Id.* at 1:48-50.

Kodama doesn't disclose biometric authentication in anyway and does not disclose any methods that are “improvements previous authentication techniques.” Kodama's stated goal was to “mitigate[e]the risk of a third party referring to or using backup data without authorization upon restoring such backup data in an electronic appliance.” Ex. 1010 at [0007]; *see also* Abstract (“mitigating the risk of a third party referring to or using backup data without authorization upon restoring such backup

data in an electronic appliance. . . Since the user will directly receive an email from the online backup service system regarding who restored which data at what time, such user will be able to audit the data restoration process independently from the person recovering the data.”). Kodama is directed to a completely distinct goal that is not pertinent biometric authentication and the goal of the ’105 Patent.

b) Petitioner has not demonstrated a POSITA would have been motivated to combine Kodama’s backup method with Cheng’s method nor a reasonable expectation of success in doing so [Limitation 1.8].

Pertinent to Petitioner’s presentation and its arguments for combining the various references is the Supreme Court’s warning against “slipping into use of hindsight.” *KSR Intern Co., v. Teleflex Inc*, 550 U.S. 398, 421 (S Ct. 2007) (quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 36 (S. Ct. 1996)). In this regard, the Federal Circuit has said that “combinations that change the basic principles under which the [prior art] was designed to operate, . . . may fail to support a conclusion of obviousness.” *Plas-Pak Indus., Inc. v. Sulzer Mixpac AG*, 600 Fed. Appx. 755, 758 (Fed. Cir. 2015) (quoting *In re Ratti*, 46 CCPA 976, 270 F.2d 810, 813 (1959), *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984)) (internal quotation marks and cites omitted) (alterations in original).

Here, Petitioner has not shown how a POSITA would implement Kodama’s method given that Kodama does not use biometrics in anyway and Cheng *requires*

them. As Petitioner states “Cheng describes ‘[t]he new biometrics-based authentication device establishes a secure connection with a user service bureau, begins the restore process and downloads backup data from storage.’” Pet. 33. However, for new *biometrics-based device* to complete “the restore process” it must first authenticate itself *using biometrics*. See Ex. 1008 (Cheng) at [0009] (“The device then compares the decrypted backup biometrics data with the newly enrolled biometrics data. If they match, then the newly enrolled biometrics data are replaced with the decrypted backup biometrics data. Only then, will the system confirm the match to the user service bureau server and request the lower tier decryption key. Once the lower tier decryption key is received, the lower tier data is deciphered and stored in the device. This completes the restore process. If they do not match, the restore process is terminated”). Thus, the second device must have a biometric sensor, which Cheng reiterated time and time again. See, e.g., *id.* at [0046] (“The user obtains a new *biometrics-based* authentication device.”); (emphasis added); Fig. 5 (reproduced below which requires the user to use biometrics for the restore process); [0014] (“FIG. 5 illustrates restore options offered during the back-up process of a device configured to implement the present invention.”)

Select one of the following restore options:

Option 1 – All digits must match

Option 2 – n out of 10 digits must match (replace n with a value between 1 to 9)

Option 3 – The selected finger(s) below must match

Right hand

Left hand

Thumb

Index finger

Middle finger

Ring finger

Little finger

Select if password also required

Password

Confirm

500

FIG. 5

Cheng even discusses how it is utilizing the unique nature of biometrics to make backups and restores secure. *Id.* at [0046] (“There is no need to report the unavailability of the old one since it is substantially difficult if not impossible to replicate the user's biometrics information due to the nature of each individual's uniqueness.”). Biometrics are a requirement in the devices in Cheng.

Kodama does not disclose biometrics and is instead limited devices such as TV programming recorders, comparably unsophisticated machines, which are being sent to “repair plants.” Ex. 1010 (Kodama) at [0002], [0006]. Far afield from biometrics, the goal of Kodama is to prevent a repair plant employee from access a

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user's data. Ex. 1010 at [0007] (“mitigate[e]the risk of a third party referring to or using backup data without authorization upon restoring such backup data in an electronic appliance.”); *see also id.* at Abstract. Petitioner has not established why a POSITA would have been motivated to combine Cheng with Kodama given that Cheng requires biometrics and Kodama has no biometric disclosures.

Further, given that Kodama has no biometric disclosures Petitioner has not shown that a POSITA would have a reasonable expectation of success combining Cheng and Kodama. Petitioner's *entire* argument is that “Kodama is but a small addition of a brand check and supporting data to that routine software.” Pet. 20. Petitioner does not in any way consider that Cheng requires biometrics for its backup process that Petitioner is attempting to incorporate Kodama into.

C. Grounds 3 and 4 Fail For Multiple Reasons.

1. Jakobsson '351 is not prior art.

While claiming that the '105 Patent is not entitled to the priority date of the Provisional applications, the Petition contains no actual analysis of the actual Provisionals. *See* Pet. 5-7. Rather, in conclusory fashion, Petitioner states that its expert has looked at the prosecution history of the '105 Patent and has confirmed that there is no provisional support for the “same brand” back up limitation in the file history. Pet. 7 (“As confirmed by Dr. McDaniel, no written description exists in any application to which the '018 App claims priority for initiating backup to a

second device based at least in part on the first device being a same brand as a second device. APPL-1003, ¶¶36-41.”). But neither, Petitioner nor its expert do an actual analysis of the file history and if they had, then they would have understood that Patent Owner properly disclosed support for the “same brand” backup in the Provisional and the Examiner did not err when the application was allowed.

The Federal Circuit has made it clear that “claims are entitled to the priority date of the . . . provisional if the provisional meets the requirements of 35 U.S.C. § 112 ¶ 1.” *Merck Sharp & Dohme Corp. v. Microspherix LLC*, 814 F. App'x 575, 579–80 (Fed. Cir. 2020). Further, “[w]ritten description is adequate if ‘the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.’” *Id.* Here, the Provisional application (Ex. 1005 at 298) discusses “synchronization of data between device 110 . . . and cloud storage or other storage 101.” Ex. 1005 (Provisional) at 315 (Fig. 5). The Provisional further discusses that a “secure channel” can be established between the two entities to authenticate each other and that “[i]t is determined, *based on policies and the identity and access history of device 110* what data to upload 502 to storage 101 *from device 110 . . .*” *Id.* (emphasis added) (reproduced below).

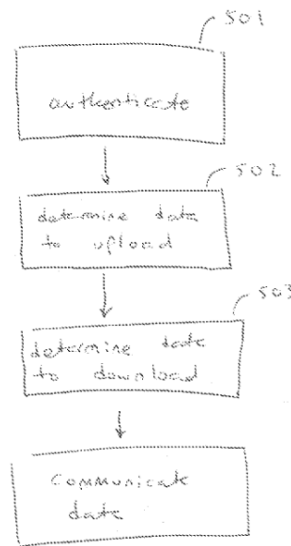


FIG 5

Fig 5 shows an example of synchronization of data between device 110, including component 114, and cloud storage or other storage 101. A secure channel can have been established, e.g., using SSL, after which the entities 110 and 101 authenticate to each other 501. It is determined, based on policies and the identity and access history of device 110 what data to upload 502 to storage 101 from device 110 and component 114, and similarly, what data to download from storage 101 to device 110 and component 114. All data is encrypted using keys stored at least in part by component 114.

Ex. 1005 (Provisional) at 315 (Fig. 5). A determination “based on” *policies* and the *identity* of the *device* would have conveyed to a POSITA that the backup could have been based on a policy including the device being of the same brand as the second device. *See, e.g.*, Ex. 1001 (’105 Patent) at 19:29-35 (“Such a *policy* may state that vaults can only be backed up to computational *devices* of the *same brand*.”) (emphasis added). Petitioner and its expert completely disregard this statement and the backup discussions in the Provisional.

Accordingly, the Jakobsson '351 Patent is not prior art as the '105 Patent has provisional support for the “same brand” backup to the Provisional and Grounds 3 and 4 fail. No further analysis of Grounds 3 or 4 is required.

2. Even if Jakobsson '351 is prior art, Ground 3 and 4 fail to demonstrate a reasonable likelihood that the challenged claims are invalid.

Petitioner's Ground 3 relies on combining Jakobsson '351 and Kodama. For the reasons discussed below, Petitioner has failed to show that a POSITA would have made that combination.

a) Kodama is not analogous art.

Kodama is not analogous art in Ground 3 for the same reasons as stated in Grounds 1-2. *See* Section III.B.3, *supra*.

b) Petitioner has not shown that a POSITA would have been motivated to combine Jakobsson '351 and Kodama [Limitation 1.8].

Petitioner states that a POSITA would have been motivated to combine Jakobsson '351 and Kodama because the combination “provides the obvious, beneficial and predictable result of mitigating compatibility and security issues that may arise between brand differences when transferring data.” Pet. 56. But Petitioner only consider Kodama for the “same brand backup” teaching and fails to consider what is actually taught by Kodama. This hindsight driven analysis fails and should be rejected by the Board.

Petitioner fails to consider what each reference discloses and purpose behind those disclosures. The Jakobsson '351 reference concerns systems and methods for authentication translation. As Jakobsson '351 explains, previous authentication techniques made “[p]roviding credentials to a service, whether via a mobile or other device . . . a tedious experience for a user.” Ex. 1011 (Jakobsson '351) at 1:20-22. Because the experience was so tedious, users would “often engage in practices such as password re-use, and/or the selection of poor-quality passwords, which render their credentials less secure against attacks.” *Id.* at 1:22-27. Thus, “improvements in authentication techniques [were] desirable.” *Id.* at 27-29.

One idea that the Jakobsson '351 discloses is that users need not be in possession of their devices because the devices are constantly syncing the contents of their vaults to remote storage entities. *Id.* at 7:44-50 (“In various embodiments, cloud storage service 140 is configured to accept backups from multiple devices associated with a single account, and synchronize the updates so that all devices get automatically refreshed. For example, Alice's laptop 102 and phone 104 could both communicate with cloud storage service 140 which would keep their authentication information synchronized.”); 4:37-41 (“In some embodiments, Alice also registers with cloud storage service 140, which will allow her to back up her authentication information and to synchronize it across her devices (e.g., 102 and 104), as described in more detail

below.”); 7:4-7 (“The new device connects to an external storage (such as cloud storage 140), provides the user identifier and credential, and downloads the user's templates/vaults from the service.”); *see also id.* 8:58-60, 3:63-4:1, 645-50.

This is important because a user can access the backups “from multiple devices associated with a single account” (*id.* 7:44-50) so it does not matter if a user loses their device “[s]ince user data can be frequently backed up to the cloud storage, and recovered from this using the new device registration process, inconvenience to the user will be minimized.” *Id.* 8:6-9. This is a core concept to Jakobsson ’351 and is reflected in the specification (as shown above), the figures (reproduced below), and claims. *See, e.g.,* Claim 16 (“perform a backup of the encrypted and authenticated record to a remote storage entity, wherein the remote storage entity is configured to synchronize records between at least two devices associated with the user.”)

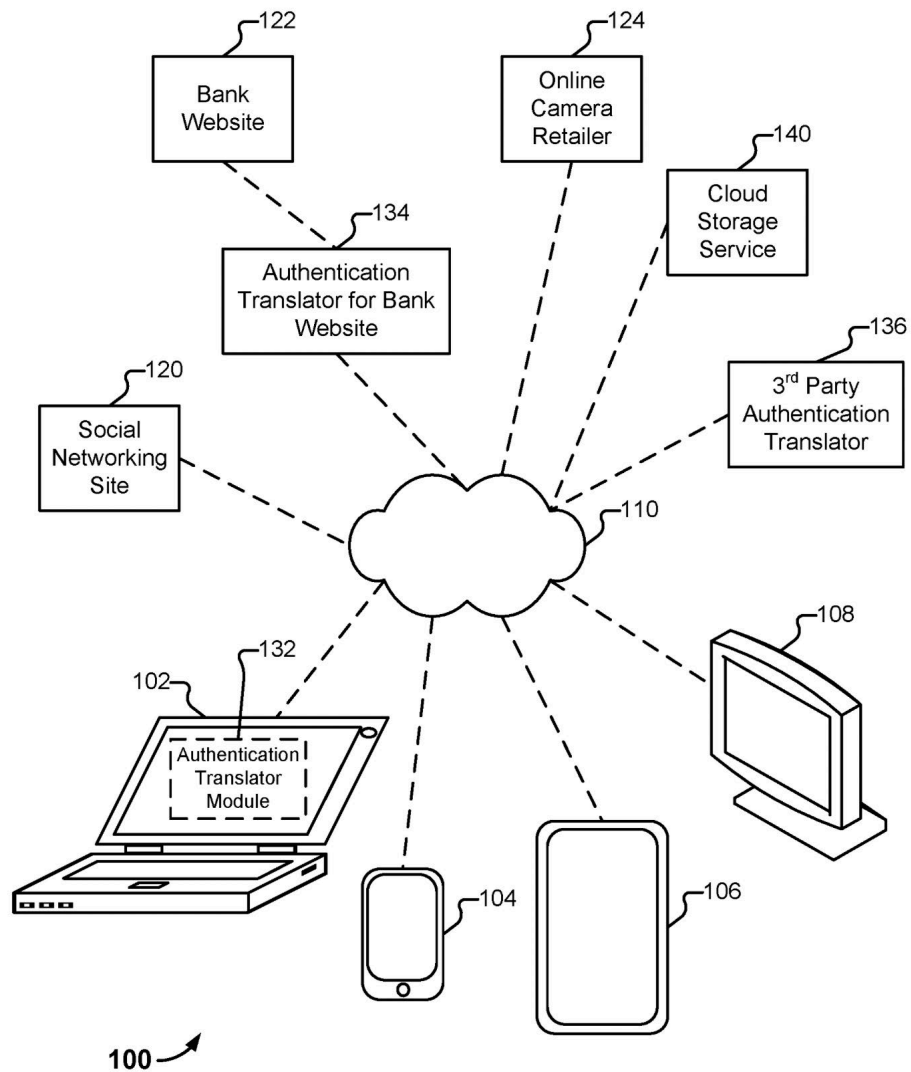


FIG. 1

Ex. 1011 at Fig. 1 (showing cloud storage 140 connected to all of a users devices 102, 104, 106). This function is core to the goal of making stronger passwords less tedious. Previously a user would use bad password practices (such as repeat passwords or simple passwords) because for example bad passwords (e.g., “12345”) can be easily remembered if a device is lost. Jakobsson’s ’351 promotes better

passwords practices (more complex passwords) because if a user loses their device, it is not a “tedious” experience to regain access to their accounts due to the constant syncing. Thus, the user can use more complex passwords and have less of an issue using them.

However, combining Kodama’s backup method with Jacobson ’351 would fundamentally alter Jakobsson, defeat one of the goals of Jakobsson, and make users more likely to use *bad* password practices. Kodama describes a system where a hard drive disk (HDD) in an appliance like a TV recorder is sent to a repair plant and the data is backed up and restored on a device of the same make. *See* Ex. 1010 (Kodama) at [0002] (“The present invention relates to a service of backing up data recorded in an electronic appliance such as an HDD (Hard Disk Drive) recorder, which is used for recording TV programs. . . the HDD recorder malfunctions, recovering the data recorded . . . at a repair plant.”); [0041] (“The HDD recorder includes an input apparatus (not shown) for receiving TV broadcast signals, an output apparatus for outputting visual and audio signals to the TV or the like, a communication apparatus for communicating with the Internet, a storage apparatus such as an HDD (Hard Disk Drive) for recording TV program data 00041”)

Kodama’s process includes various security checks so that the employee at the repair plant does not steal the user’s data—this is the issue Kodama is trying to solve. *Id.* at Abstract (“*The risk of a third party referring to or using backup data*

without authorization upon restoring such backup data in an HDD recorder is mitigated. . . . Since the user will directly receive an email from the online backup service system regarding who restored which data at what time, such user will be able to audit the data restoration process independently from the person recovering the data.”) (emphasis added); [0007] (“Thus, an *object of the present invention* is to provide an electronic appliance service system capable of *mitigating the risk of a third party referring to or using backup data without authorization* upon restoring such backup data in an electronic appliance.”) (emphasis added); [0009] (“According to the present invention, it is possible to *mitigate the risk of a third party referring to or using backup data without authorization* upon restoring such backup data in an electronic appliance.”) (emphasis added).

Kodama discloses a system where a third-party (or for the sake of this argument a user) needs to have possession of *both* the device being backed up and the device being restored. The employee of the repair plant has access to the device being backed up, has access to the backed-up data, and has access to the new device—that’s why the mitigating what of the user’s data the repair plant employee can access is so important to Kodama.

However, requiring the user to be in possession of *both* of their devices defeats one of the core functions of Jakobsson ’351. If a user is required to have their devices at all times (to later be able to access its data for a backup per Kodama), a user is

more likely to use weaker password practices because if they lose their device, they won't lose access to their accounts. If a user is not able to gain the benefit of syncing complex passwords and is required to have both the backing up device and restoring device (as disclosed by Kodama) one of the incentives to use better password practices is defeated. For these reasons, Petitioner has not shown that a POSITA would have been motivated to combine Jakobsson '351 and Kodama.

IV. CONCLUSION

For any or all the above-described reasons, Patent Owner respectfully requests that the Board deny institution.

Dated: May 7, 2024

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CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER'S PRELIMINARY RESPONSE** specified in 37 C.F.R. §42.24 have 10,141 words, in compliance with the 14,000 word limit set forth in 37 C.F.R. §42.24(b)(1). This word count was prepared using Microsoft Word 2010.

Dated: May 7, 2024

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CERTIFICATION OF SERVICE

The undersigned hereby certifies that a copy of this **PATENT OWNER'S PRELIMINARY RESPONSE PURSUANT TO 37 C.F.R. § 42.10(b)** has been served on Petitioner via email on the following counsel of record for Petitioner:

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