

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTERNATIONAL BUSINESS MACHINES CORPORATION,
Petitioner,

v.

ISIX IP LLC,
Patent Owner.

Case IPR2022-01488
Patent No. 6,308,178

**PATENT OWNER ISIX IP LLC'S PRELIMINARY RESPONSE
UNDER 37 C.F.R. § 42.107**

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PATENT OWNER'S EXHIBIT LIST

Exhibit-2001	Complaint for Patent Infringement (ECF No. 1), Case No. 6:22-cv-00201-ADA-DTG, <i>Isix IP LLC v. Int'l Bus. Machines Corp.</i> , filed Feb. 25, 2022.
Exhibit-2002	Claim Construction Order (ECF No. 37), Case No. 6:22-cv-00201-ADA-DTG, <i>Isix IP LLC v. Int'l Bus. Machines Corp.</i> , Jan. 4, 2023.
Exhibit-2003	Defendant IBM's Amended Invalidity Contentions, Jan. 17, 2023.
Exhibit-2004	Defendant IBM's Amended Invalidity Contentions, Exhibit A1 Claim Chart for U.S. Patent No. 6,208,990 (Suresh).
Exhibit-2005	Defendant IBM's Amended Invalidity Contentions, Exhibit A8 Claim Chart for U.S. Patent No. 6,151,608 (Abrams).
Exhibit-2006	Defendant IBM's Amended Invalidity Contentions, Exhibit A14 Compilation of Disclosures from Additional Prior Art References.

I. PRELIMINARY STATEMENT

IBM's petition should be denied because Petitioner failed to demonstrate a reasonable likelihood of prevailing with respect to at least one challenged claim.

The main prior art IBM relies on, Suresh, relates to ETL technology—that is technology for Extracting data from operational databases, Transforming the data, and then Loading that data into a database called a data warehouse or data mart.

The '178 patent, on the other hand, relates to integrating data among heterogeneous applications (Enterprise Application Integration or “EAI”). EAI enables an application (e.g., sales and invoicing) to obtain data from and share data with another application (e.g., inventory management). EAI populates destination *applications* with data that is processed based upon information about the source and destination *applications* (e.g., sales and invoicing data is used by the inventory management system to subtract a unit that was delivered).

To find Suresh anticipates or renders obvious the challenged claims requires equating a destination *application* with a database. The asserted references are directed to gathering data into a common database, and the transformation functionality of ETL is directed by the user, not by the destination application. The *application integration* technology of the '178 patent, which relates to integrating data among heterogeneous source and destination *applications*, is well beyond the scope of these ETL references. To integrate applications, the subject

matter claimed in the '178 patent requires data operations driven by a destination application and populating data within that destination application.

Because the petition relies upon unrelated prior art, Petitioner fails to provide any evidence for multiple elements of the independent claims, including (i) “destination applications,” (ii) “a repository of information relating to source applications and destination applications,” and (iii) “a first module, including a plurality of data elements.” This failure of proof precludes Petitioner from demonstrating a reasonable likelihood of prevailing on at least one challenged claim.

IBM alleges that independent claims 1 and 23 are invalid as obvious over Suresh yet fails to show the substantive underpinnings of obviousness. IBM fails to articulate the differences between the alleged scope of the prior art and the claimed inventions. Nor does IBM provide any motivation to combine or a reasonable likelihood of success, both of which are required under Federal Circuit law. Because IBM’s petition requires the Patent Owner and PTAB to guess as to the missing information and the concomitant motivation to combine, Petitioner has not demonstrated a reasonable likelihood of success of prevailing on at least one challenged claim.

The Consolidated Trial Practice Guide (“TPG”) and precedential Board decisions make clear that the state of a parallel proceeding favors denial of

petitions for post-grant proceedings before the Board, and precedential cases such as *Apple Inc. v. Fintiv, Inc.* and *NHK Spring Co., Ltd. v. Intri-Plex Tech., Inc.* show that advanced district court litigation generally “implicates considerations of efficiency and fairness” that militate in favor of institutional denial. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 11 (precedential); *see also* TPG, November 2019 (*available at* <https://www.uspto.gov/TrialPracticeGuideConsolidated>) at 58; *NHK Spring Co., Ltd. v. Intri-Plex Tech., Inc.*, IPR2018-00752, Paper 8 at 20 (precedential); *Apple Inc. v. Pinn, Inc.*, PGR2020-00066, Paper 16.

The parallel district court case here is well underway. The parties started the claim construction process in August 2022, and the Magistrate Judge held a *Markman* hearing in December 2022, during which the claims were construed. Fact discovery is underway, and IBM and Isix have exchanged post-*Markman* invalidity and infringement contentions. Denial of IBM’s Petition is appropriate under § 314(a) in view of the advanced state of the district court case and the resources already spent and dedicated by the court and parties. *See Fintiv*, Paper 15; *NHK*, Paper 8.

II. BACKGROUND

A. The '178 Patent

The '178 patent is a system for integrating various disparate applications so that an application can request and receive data from another application without creating customized integration software. Specifically, the application middleware of the '178 patent is a “configurable software system for providing migration of data *among heterogeneous applications* without requiring the development of code to accommodate the specific requirements of the heterogeneous applications present in a particular environment.” '178 pat. at col. 1, lines 7-11 (emphasis added).

Prior art systems for application integration were based on custom code “written specifically to operate with a fixed group of heterogenous applications and integrate them with an ERP product of a particular version.” '178 pat. at col. 1, lines 60-64. Such an approach worked “only so long as the environment remains unchanged,” and the applications were not updated. *Id.* at col. 1, lines 67- col. 2, line 1. Prior art systems were additionally deficient because the “front-end integration software [did] not directly integrate with the applications at the destination end.” *Id.* at col. 2, lines 16-18.

The '178 patent disclosed an integration system that “provides a flexible, end-to-end integration solution that manages all mapping, validation, and synchronizations of data among heterogeneous source and destination applications

within an organization and among the applications of multiple organizations.” ’178 pat. at col. 2, lines 35-40.

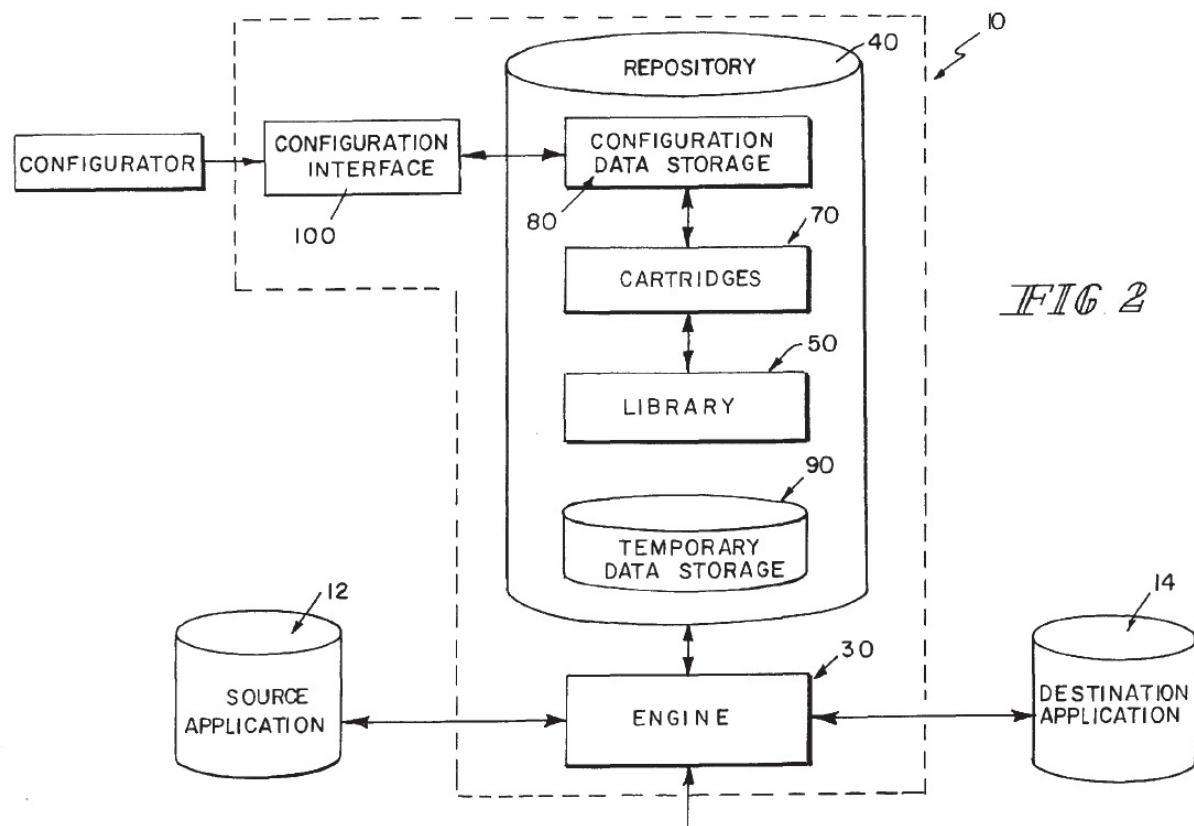
The ’178 patent integrates data among source and destination applications, rather than translating and transferring data from an operational database to merely a data warehouse (or data mart), which is not a destination application. Destination applications “may include any combination of database applications 14A, 14B and ERP applications 14C.” ’178 pat., col. 4, lines 10-12. The ’178 patent is focused on integrating data with various disparate business software applications:

EAI [Enterprise Application Integration] software is generally designed to address the need of business to integrate various business software applications employed by the diverse operating sectors of a single business organization (for example, financial operations, human resources, shipping and receiving, etc.), or by such operating sectors of multiple organizations. Over time, many organizations incorporate disparate software applications, each designed to manage a specific business function or set of functions. Accordingly, data related to these business functions is dispersed across the organization, and resides separately within the various software applications.

’178 pat. at col. 1, lines 14-25.

As shown in Fig. 2 (below), one example of the claimed system includes an active component (denoted as engine) that performs the “underlying communication and data processing functions and a repository of information used by the active component relating to the characteristics of the source and destination applications.” ’178 pat. at col. 2, lines 40-44. System functionality is enhanced by adding modules (denoted as cartridges) that are “pre-built integration packages” which “define[]

interface processes or instruction sets which migrate data between the source applications and a particular destination application.” *Id.* at col. 2, lines 44-56. “In operation, when destination application 14 requests data held in a file or data base residing in source application 12,” the active component “read[s] and process[es] inputs from a source application and perform[s] the transfer of data to a destination application.” *Id.* at col. 2, lines 56-60, col. 8, lines 46-48.



“Application integration middleware technology” like that claimed in the ’178 Patent “enable[s] application programs to efficiently and conveniently interact with legacy host applications and/or legacy host data stored in a back-end data store (such

as a database, directory, or other data storage repository).” *See* U.S. Patent No. 7,130,964 (“the ’964 patent”) at col. 2, lines 10-15. In other words, the ’178 patent further contemplates integrating data among applications having different data models because “various software applications maintain data according to different data models, such as hierarchical networks, relational models, spreadsheets, multimedia databases, knowledge databases and other types of data models.” ’178 pat. at col. 1, lines 26-30.

A contemporaneous patent cited as Exhibit 1016 (US Patent 6,738,975) in the Petition recognizes that a need existed for application integration technologies like that claimed in the ’178 patent. “Throughout the past few decades, business enterprises have designed or bought many large, single-purpose software applications. These “legacy” **applications** continue to be used, and most often were designed to perform a specific function (e.g., inventory, finance, accounting, sales force automation, and human resources). More recently, substantial investments have also been made by those same enterprises to procure packaged software applications from software developers such as SAP, PeopleSoft, Oracle, and Baan. Each of these packaged software applications enjoyed its own unique strengths. Accordingly, the typical business enterprise used two or more disparate packaged software applications in the same runtime environment. Such packaged software applications were not, in the beginning, designed to share information among

themselves. As a result, enterprises had been forced to **integrate** their disparate packaged software **applications** with expensive custom code. Such integration efforts often took months, if not years, to complete.” U.S. Patent No. 6,738,975 at col. 13, line 59 – col. 14, line 10.

IBM challenges the validity of Claims 1-5, 7-15, 18-21, 23-26, and 29-32 of the '178 Patent. Independent Claim 1 is provided below:

1. A system for integrating data among heterogeneous source applications and destination applications, comprising:
a repository of information relating to the source applications and the destination applications, the repository including a plurality of data elements each being capable of performing a discrete operation on a piece of data, and a first module including a plurality of instruction sets, each instruction of each instruction set activating a data element; and
an active component connected to the repository having an input for loading data from the source applications, and an output for populating the destination applications with processed data, the active component processing the data from the source applications by activating data elements according to the plurality of instruction sets in the module.

Dependent Claim 5 is provided below:

5. The system of claim 3, wherein the repository further includes configuration data storage for storing configuration data describing the source applications, the configuration data storage including a first portion used by the first module and a second portion used by the second module.

Independent Claim 23 is provided below:

23. A system for integrating data among heterogeneous source applications and destination applications, comprising:
configuration data storage for storing configuration data relating to the source applications;
temporary data storage for storing temporary data being integrated among the source and the destination applications;
a library of data elements, each data element performing a predefined function;
a first module including a plurality of instruction sets, each instruction set specifying a plurality of data elements to form a chain of data elements; and
an active component operably associated with the configuration data storage, the temporary data storage, the library, and the first

module, the active component including a loader for loading data from the source applications to the temporary data storage according to the configuration data relating to the source applications, and an interfacier for populating the destination applications with data from the temporary data storage after the data is processed by the active component, the active component processing the data by communicating with the first module and activating data element chains according to instruction sets of the first module.

B. Patent Owner's Patent Infringement Action

On February 25, 2022, patent owner Isix IP LLC ("Patent Owner" or "Isix") filed a Complaint for Patent Infringement against Petitioner in the United States District Court for the Western District of Texas, alleging that IBM infringed U.S. Pat. No. 6,308,178. Ex-2001.

C. Petitioner's Grounds of Challenge

All asserted grounds identified in the Petition rely in whole or in part on one common reference: U.S. Patent No. 6,208,990 to Suresh *et al.* ("Suresh," Ex-1004). *See* Petition at 22. Petitioner additionally relies on U.S. Patent No. 6,151,608 to Abrams *et al.* ("Abrams," Ex-1010), U.S. Patent No. 6,038,558 to Powers *et al.* ("Powers," Ex-1006), U.S. Patent No. 6,621,505 to Beauchamp *et al.*

(“Beauchamp”, Ex-1005), U.S. Patent No. 6,330,568 to Boothby *et al.* (“Boothby”, Ex-1007), and “*The Case for a Process-Driven Approach to Data Warehousing*,” by Peter J. Weyman (“Weyman”, Ex-1009). The petitioned grounds for rejection are as follows:

Ground Number	Basis	Claims	References
1	Obviousness (§103)	1-5, 7, 9, 10, and 23-25	Suresh
2	Obviousness (§103)	11-14	Suresh in view of Abrams
3	Obviousness (§103)	26	Suresh in view of Abrams and Powers
4	Obviousness (§103)	8, 19, 20, and 29-31	Suresh in view of Beauchamp
5	Obviousness (§103)	15	Suresh in view of Abrams and Beauchamp
6	Obviousness (§103)	21 and 32	Suresh in view of Boothby

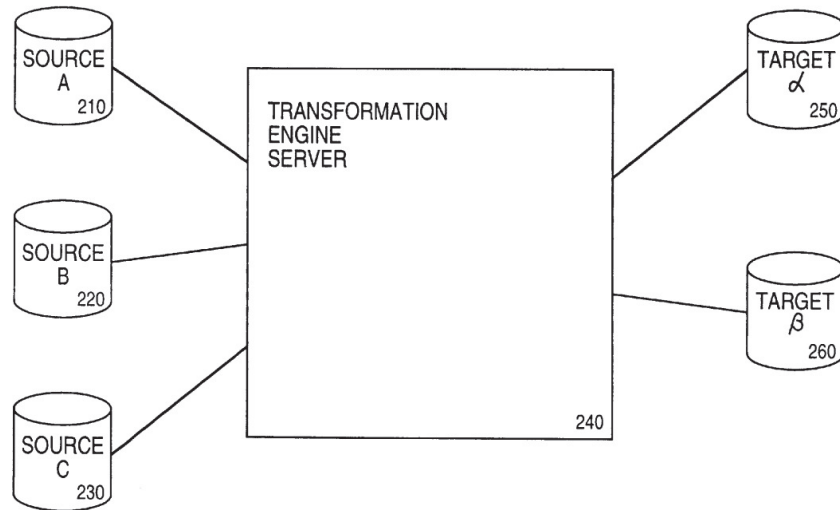
Ground Number	Basis	Claims	References
7	Obviousness (§103)	18	Suresh in view of Weyman and Abrams

Throughout this Preliminary Response, Patent Owner will refer to these prior art references by the names indicated above, rather than by exhibit number. The prior art references relied on are described and addressed below, in conjunction with the argument represented in this Preliminary Response.¹

1. Summary of Suresh

Suresh discloses a “computer software architecture to automatically optimize the throughput of the data extraction/transformation/loading (ETL) process in data warehousing applications.” Suresh at Abstract. Suresh discloses “a computer software architecture that automatically optimizes the throughput of data transport process (e.g., extraction, transformation, and loading) in data warehousing . . .” Suresh at col. 2, lines 59-62. Fig. 2 depicts Suresh’s system:

¹ Patent Owner intends no waiver by any argument made or omitted at this stage and reserves its right to present additional argument and evidence related to these prior art references, consistent with the Board’s Rules and practice.



Sources A B, and C are operational databases that store “data resulting from business and financial transaction, and/or from equipment performance logs” and “provide the data source from which the transformation engine server 240 can extract, transform, then load the data into the databases [not applications] 250 and 260.” Suresh at col. 6, lines 8-11 and 16-19. Suresh uses “transformation components” to perform its ETL process, namely, loading source data, transforming the source data, and storing the transformed data. *See* Suresh at col. 10, line 35 – col. 11, line 6. “[T]he user manually chooses the transformation components necessary to accomplish the data ETL process.” *Id.* at col. 9, lines 6-8.

2. Summary of Abrams

Abrams describes a system for migrating data from relational databases to relational database tables. Abrams, Abstract. The translation of the data values is

driven by user-defined “mapping templates and conditionals.” Abrams, Abstract.

Fig. 3 depicts the data migration engine of Abrams:

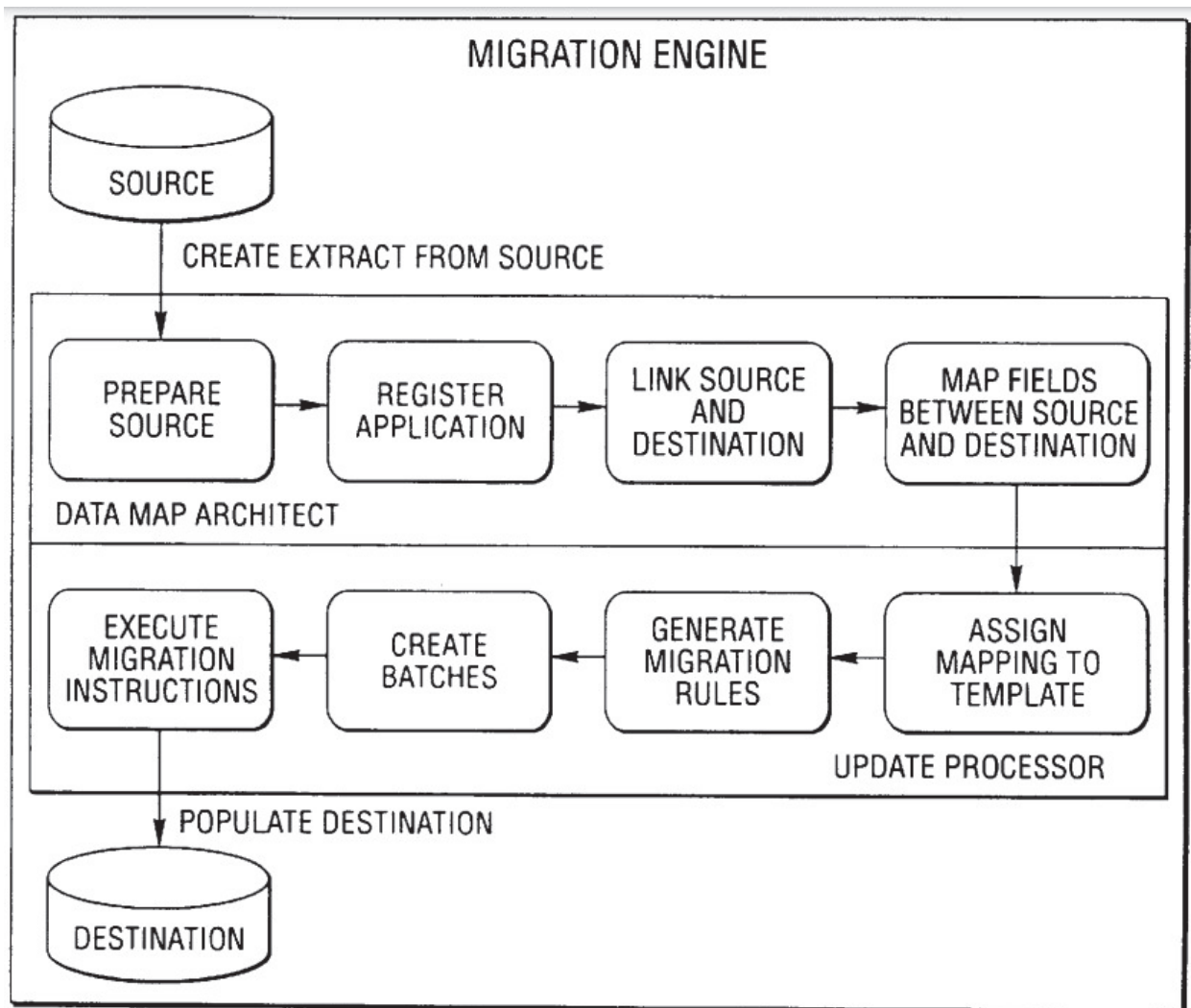


Fig. 3

3. Summary of Powers

Powers describes an “architecture for extending the data requesting and data viewing capabilities of a database system.” Powers, Abstract. Data from a database may be accessed, manipulated, and output via steps in a user-developed

plan. Powers, Abstract. “The extensible architecture allows for the relatively easy addition of new steps for use in the database retrieval and viewing system.”

Powers, col. 1, lines 46-49. Fig. 1 of Powers depicts this architecture:

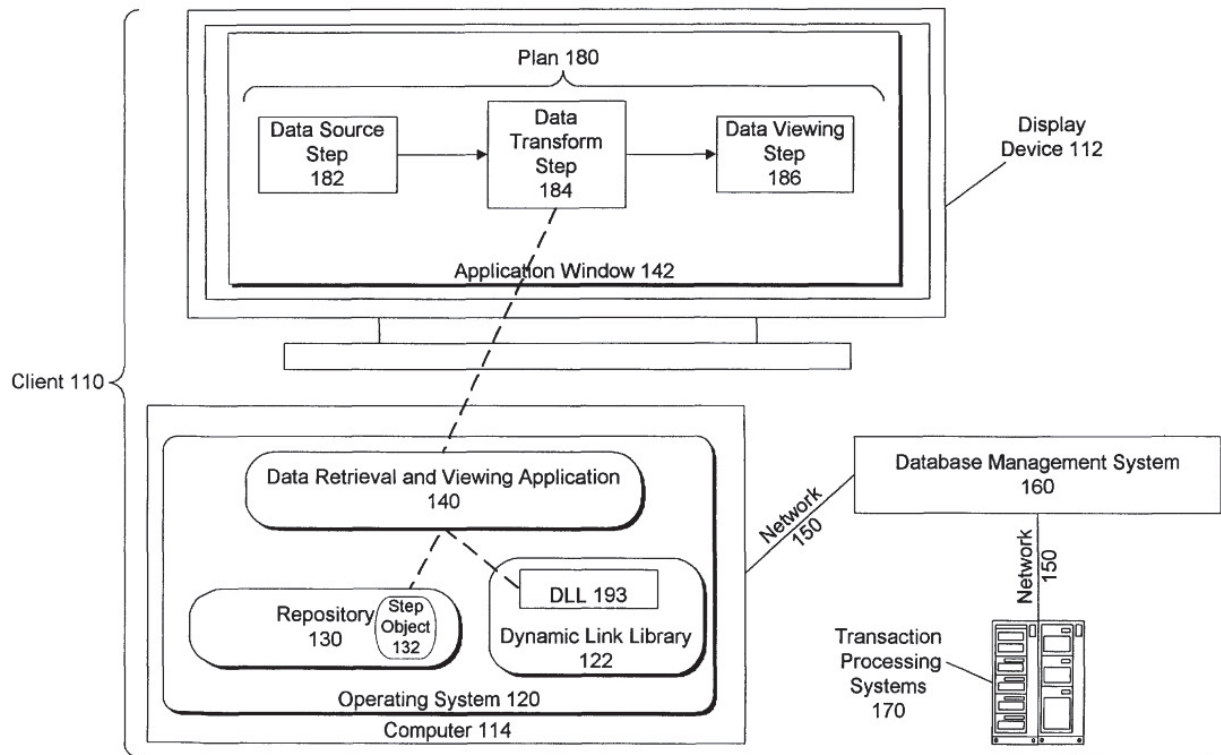


Figure 1

4. Summary of Beauchamp

Beauchamp describes use of standardized interface screens a “linked together in predetermined orders to implement on a client computer activities for which the standardized screens are appropriate to accomplish a pre-defined process.” Beauchamp, Abstract. Beauchamp describes “accessing data from an application or data store in response to the request for a step from the client computer.” Beauchamp, col. 5, lines 31-33. The client computer may receive and

render the data in one or more screens. *See id.* at col. 5, lines 35-37. Fig. 2 of Beauchamp (below) depicts a “process-based computing using a universal client to lead a user through a business process.” *Id.* at col. 8, lines 3-4.

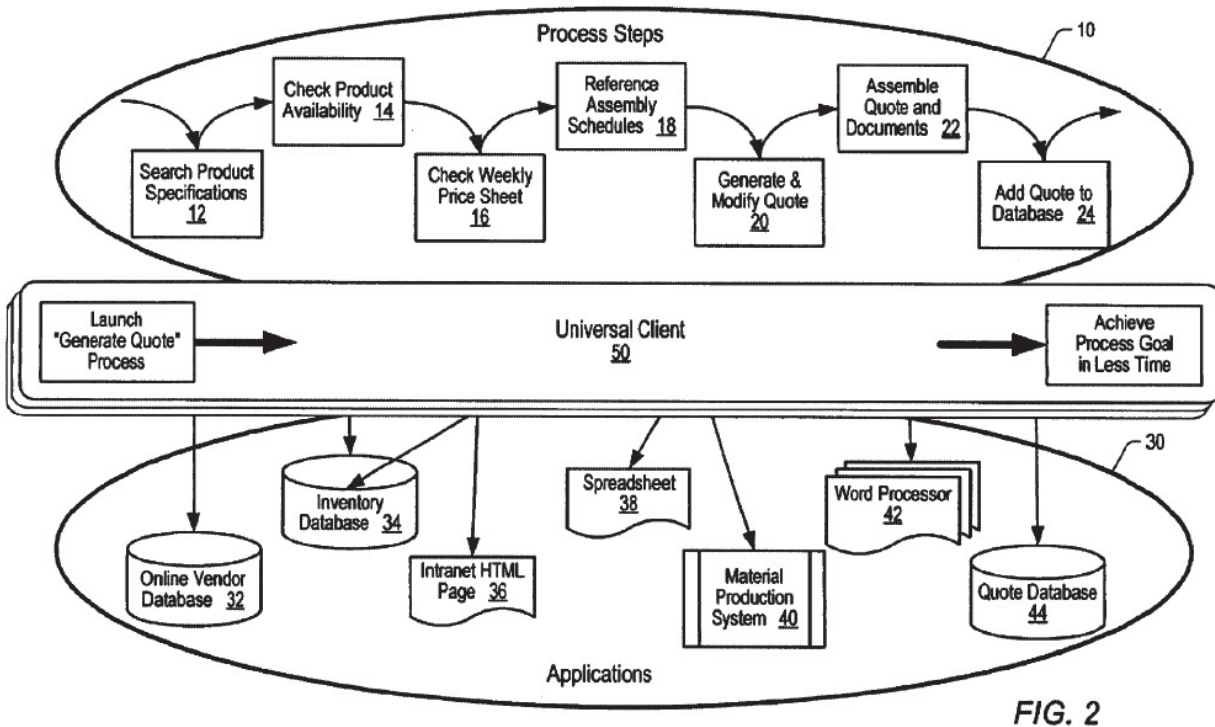


Fig. 3 of Beauchamp (below) depicts “one embodiment of a screen framework that may be rendered by a universal client.” *Id.* at col. 8, lines 5-7.

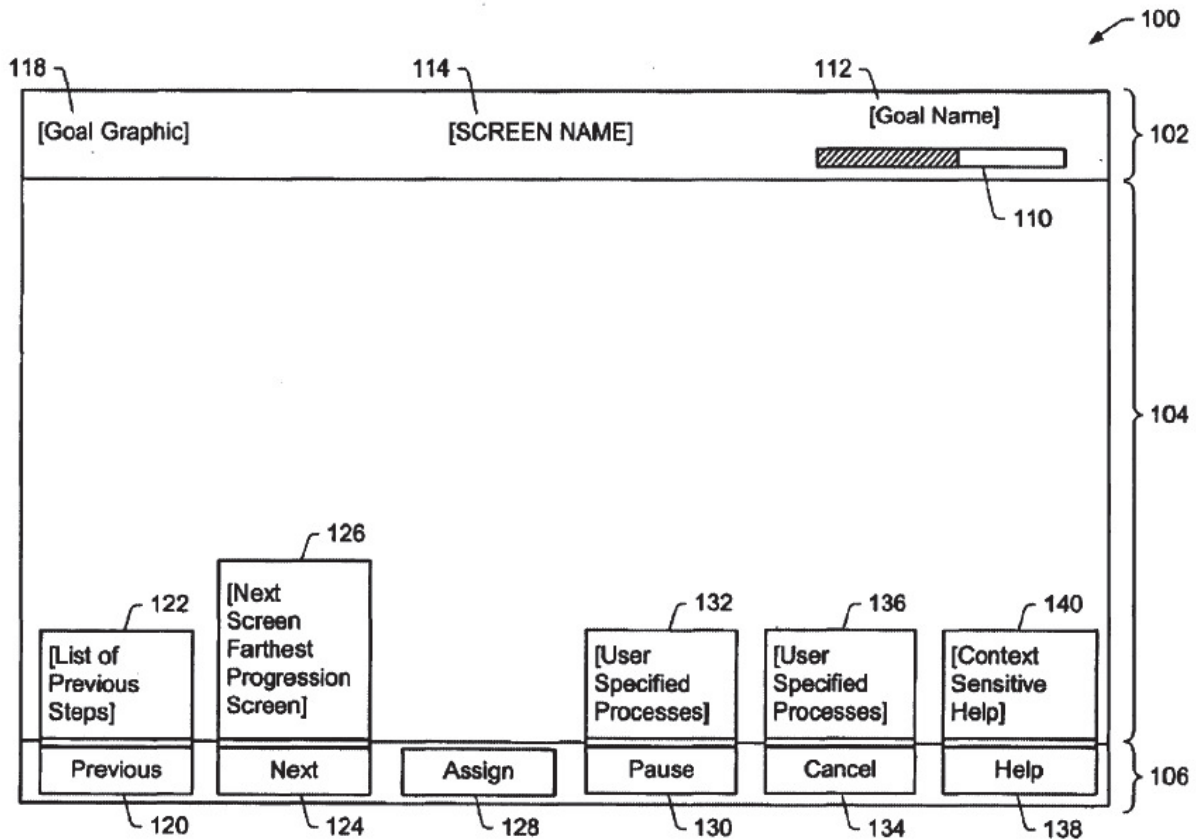
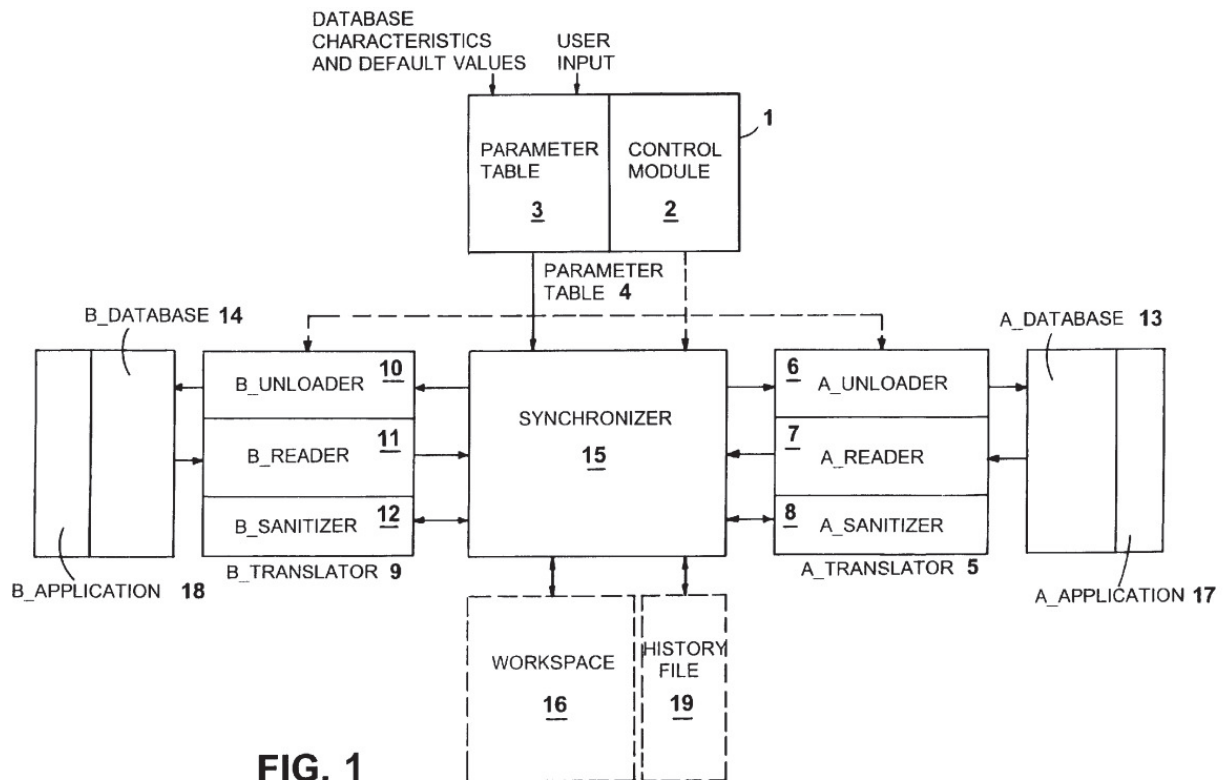


FIG. 3

5. Summary of Boothby

Boothby describes a method “for synchronizing a first and a second database, where data is provided for keeping track of whether the records of the first database have been added or changed since a previous synchronization.”

Boothby, Abstract. Example modules of Boothby are shown in Fig. 1:



6. Summary of Weyman

Weyman describes stages in a data warehousing system. These stages include: modelling data for the data warehouse, extracting data from the source databases, cleansing data to filter out or repair defective records, transforming data from the production model into the warehouse model, integrating data with data from other sources, and loading the data into the data warehouse database.”

Weyman, p. 1. Fig. 1 of Weyman illustrates one example data warehousing implementation:

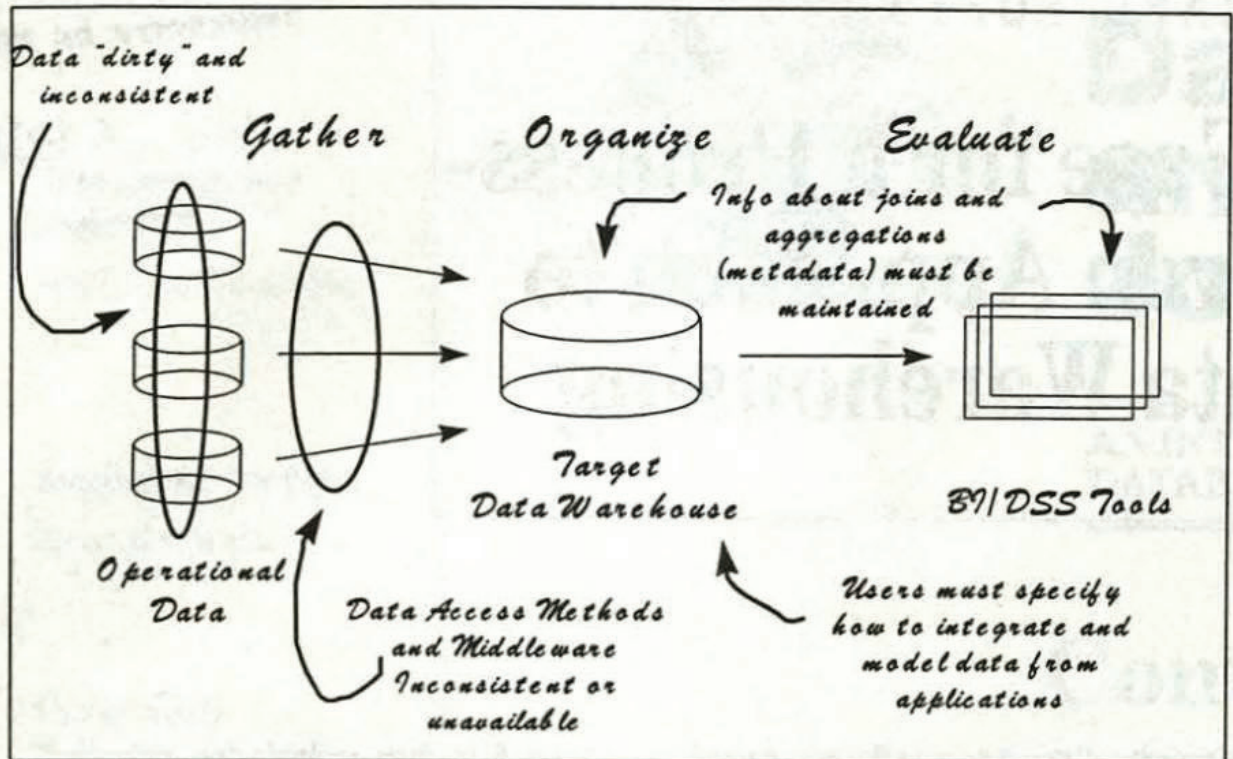


Figure 1. Effective decision support means gathering relevant data, organizing it into meaningful information, and evaluating the information in the context of the business. Extracting, cleansing, transforming and integrating data, while keeping track of information that describes the data are tasks that make or break data warehouses. The figure shows common problems that face DSS implementers.

III. CLAIM CONSTRUCTION

Patent Owner has applied the preliminary claim constructions adopted by Magistrate Judge Gilliland of the Western District of Texas. Ex-2002 (Claim Construction Order (ECF No. 37), No. 6:22-cv-201-ADA-DTG, *Isix IP LLC v. Int'l Bus. Machines Corp.*, Jan. 4, 2023.).

Destination Application

Petitioner asserts that the limitation “integrating data among heterogeneous source and destination applications” is met in Suresh by extracting data from operational databases, transforming that data, and loading the transformed data

onto target databases. *See* Pet. at 26-27. In so doing, Petitioner construed “destination application,” based largely on a dictionary definition of “application” untethered to the scope of the ’178 patent. *See* Pet. at 28. The ’178 patent, however, is clear that a destination application “may include any combination of database applications 14A, 14B and ERP [Enterprise Resource Planning] applications 14C.” ’178 pat. at col. 4, lines 9-11. Indeed the ’178 patent never describes a database itself as a destination application.

The proper construction of an application is a *business application program* such as an accounting, purchasing, or human resources application. ’178 pat., col. 3, line 64 – col. 4, line ; *see also* col. 1 lines 43 – 47 and col. 5, lines 50 – 60. A database may be accessed by a destination application but is not equivalent to a “destination application” in the challenged claims.

IV. EXERCISING DISCRETIONARY DENIAL UNDER 35 U.S.C. § 314(a) IS APPROPRIATE UNDER *FINTIV*.

The Board has recognized that “the advanced state of [a parallel] district court proceeding” can be grounds for the Board to deny institution of post-grant proceedings under § 314(a). *NHK*, Paper 8 at 20; TPG at 58; *Fintiv*, Paper 15 at 7.

In *Fintiv*, the Board articulated several factors that “balance considerations of system efficiency, fairness, and patent quality when a patent owner raises an argument for discretionary denial due to the advanced state of a parallel proceeding.” Under circumstances similar to this matter, the Board has denied

institution when the analysis of these factors has revealed that deciding otherwise would be an inefficient use of Board resources. *Fintiv*, Paper 15 at 7.

The *Fintiv* factors include (1) whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted; (2) proximity of the court's trial date to the Board's projected statutory deadline for a final written decision; (3) investment in the parallel proceeding by the court and the parties; (4) overlap between issues raised in the petition and in the parallel proceeding; (5) whether the petitioner and the defendant in the parallel proceeding are the same party; and (6) other circumstances that impact the Board's exercise of discretion, including the merits. *See id.* at 7-8. Application of the *Fintiv* factors to the present circumstances suggest that discretionary denial is appropriate and will serve the interests of administrative efficiency and conserve the Board's resources.

1. IBM Has Not Sought a Motion to Stay the Case in the Western District of Texas.

IBM has neither filed a motion to stay the district court litigation nor indicated to the district court that it intends to request a stay of the proceedings pending the Board's decision whether to institute review. This factor strongly favors denial of institution.

2. The Court's Trial Date is Set for About Three Months Before the Board's Projected Statutory Deadline.

The Board considers the proximity of the court's trial date in the parallel

proceeding to the Board’s projected statutory deadline for a final written decision. *Fintiv*, Paper 11 at 6. “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 under *NHK*.” *Id.* at 9. In *Fintiv*, the jury trial was set to begin on March 8, 2021, “approximately two months before a final written decision would be due in [that] proceeding,” and the Board found that this proximity weighed in favor of discretionary denial. *Fintiv*, Paper 15 at 13.

In the parallel district court proceeding, the current Scheduling Order requires the petitioner and patent owner to email the Court’s law clerk to confirm pretrial and trial dates on October 9, 2023, and file the Joint Pretrial Order and Pretrial submissions the following day, October 10, 2023. Ex-1018 at 4. The district court has set the Final Pretrial Conference on November 30, 2023, and jury selection/trial to begin December 4, 2023, subject to an amended setting, which the Court noted in the Scheduling Order (*id.* at 4-5):

October 10, 2023	File Joint Pretrial Order and Pretrial Submissions (jury instructions, exhibits lists, witness lists, discovery and deposition designations); file oppositions to motions <i>in limine</i>
October 17, 2023	File Notice of Request for Daily Transcript or Real Time Reporting. If a daily transcript or real time reporting of court proceedings is requested for trial, the party or parties making said request shall file a notice with the Court and e-mail the Court Reporter, Kristie Davis at kmdaviscsr@yahoo.com.
October 17, 2023	Deadline to meet and confer regarding remaining objections and disputes on motions <i>in limine</i> .
October 9, 2023	Parties email the Court's law clerk to confirm pretrial and trial dates

Deadline	Item
November 26, 2023	File joint notice identifying remaining objections to pretrial disclosures and disputes on motions <i>in limine</i> .
November 30, 2023	Final Pretrial Conference. The Court expects to set this date at the conclusion of the Markman Hearing.
December 4, 2023	Jury Selection/Trial. The Court expects to set this date at the conclusion of the <i>Markman</i> Hearing.

Under the current schedule, trial is expected to begin and conclude more than two months before the statutory deadline.

3. Significant Investment Has Been Made in the Parallel Proceeding by the Court and the Parties.

The Board considers investment in the parallel proceeding by the court and the parties in determining whether to exercise discretionary denial under § 314(a). *See Fintiv*, Paper 11 at 6. “Specifically, if, at the time of the institution decision, the district court has issued substantive orders related to the patent at issue in the

petition, this fact favors denial.” *Id.* at 9-10. Notably, “district court claim construction orders may indicate that the court and parties have invested sufficient time in the parallel proceeding to favor denial.” *Id.* at 10. In *Fintiv*, the Board noted that even though claim construction was complete, “fact discovery [was] in its early stages, with document production ongoing and depositions just getting underway, expert reports [were] not yet due, and substantive motion practice [was] yet to come.” *Fintiv*, Paper 15 at 14. Even so, the Board in *Fintiv* determined that this “factor weigh[ed] somewhat in favor of discretionary denial.” *Id.*

The district court conducted a claim construction hearing on December 22, 2022, construed all claim terms IBM and Isix proposed, heard and rejected IBM’s § 112 indefiniteness challenges, and issued a claim construction order on January 4, 2023. Ex-2002.

Patent Owner has served infringement contentions, and IBM has served invalidity contentions. Discovery is underway, and fact discovery will close on June 20, 2023. Both parties and the district court have invested significant resources in the parallel proceeding, so this factor weighs in favor of discretionary denial.

4. There is Complete Overlap Between Issues Raised in the Third Petition and in the Parallel Proceeding.

The Board considers overlap between issues raised in the petition and in the parallel proceeding in deciding whether to exercise its discretion to deny

institution. *See Fintiv*, Paper 11 at 6. “Accordingly, if the petition includes the same or substantially the same claims, ground, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial.” *Id.* at 12. As in *Fintiv*, the same claims are challenged here as in the district court. *See Fintiv*, Paper 15 at 14-15.

IBM relies on the same Suresh reference that is the basis of this petition as its primary reference (designated “A1”) in its district court invalidity contentions:

a. Prior Art Patents and Printed Publications to The Asserted Claims of the '178 Patent.

Exhibit	Reference	Filing / Priority Date	Date of Issue or Publication	Short Cite
A1	US Patent No. 6,208,990 to Suresh	7/15/1998	3/27/2001	Suresh
A2	PCT Application No. WO 95/27254 to MacKay	4/4/1994	10/12/1995	MacKay
A3	US Patent No. 5,781,911 to Young	9/10/1996	7/14/1998	Young
A4	US Patent No. 6,014,670 to Zamanian	11/7/1997	1/11/2000	Zamanian

See Ex-2003, Defendant IBM’s Amended Invalidity Contentions, Jan. 17, 2023.

Indeed, IBM asserts every reference cited in its petition in its district court invalidity contentions. *See* Ex-2004 (IBM’s Invalidity Contention Chart for Suresh); Ex-2005 (IBM’s Invalidity Contention Chart for Abrams); and Ex-2006 (IBM’s Invalidity Contention Chart - Compilation of Disclosures from Additional Prior Art References). Total overlap weighs heavily in favor of denying institution.

5. The Petitioner and Defendant in the Parallel Proceeding are the Same Party.

The Board considers whether the petitioner is a defendant in the parallel proceeding, and, if it is, this fact weighs in favor of denying institution. *See Fintiv*, Paper 11 at 13-14. IBM is the defendant in the parallel district court litigation and the Petitioner in this proceeding, so this factor weighs in favor of discretionary denial. *See id.* at 15.

6. Other Circumstances, Including the Lack of Merit in Petitioner's Arguments, Favor Denial of Institution.

The Board also considers the merits of both petitioners' and patent owners' arguments. *See id.* Here, Petitioner's failure to offer any prior art reference that teaches, for example, a repository storing information relating to source and destination applications renders all of Petitioner's grounds unpersuasive, or, at the very least, shows that Petitioner's "case [is] a close call." *Id.* at 16.

The fundamental problem with IBM's petition is that Suresh and the other references relate to ETL processes and systems. The '178 specification describes a different field and technology: Enterprise Application Integration. '178 pat. at col. 1, lines 5-11. And the specification explicitly distinguishes ETL: "[t]his software is attached to the heterogeneous source applications and is used to query the source applications to obtain the desired data . . . [it] does not directly integrate with the applications at the destination end" '178 pat. at col. 2, lines 12-18

(describing prior commercial ETL products called “front-end integration packages” that pull data from a source application but do not populate a destination application). Further, ETL cannot be EAI because it does not include “a repository of information relating to the source applications and the destination applications.” ETL systems do not have this because they are not concerned with information related to the destination application. ETL systems are simply not concerned with destination applications.

The specification describes (and the claims recite) the hallmark of EAI that distinguishes ETL in terms of a solution: “an integration system capable of providing data transfer interfaces among the various heterogeneous applications employed throughout the organization.” *Id.* at col. 1, lines 33-37; *see also id.* at col. 2, lines 35-40 (describing present invention as flexible, end-to-end integration solution that manages all mapping, validation, and synchronization of data among . . . source and destination applications . . .”). The claims recite the same description, distinguishing the claimed subject matter from ETL. *E.g.*, ’178 pat. at col. 9, lines 51-53 (claim 1) (“a system for integrating data among heterogenous source applications and destination applications”).

Integrating data between applications is fundamentally different from ETL, which focuses on moving data from a source database to a data warehouse or data mart—a destination datastore, not a destination application. Suresh and the other

ETL references are not concerned with populating a destination application with processed data. They output (or load) transformed data into a database. A database is not a destination application, and petitioner's arguments lack merit due to ignoring this basic and fundamental distinction in the art. Indeed, this important aspect of the claimed subject matter is expressed in the description of "the integration system of the present invention [that] provides a flexible, end-to-end integration solution that manages all mapping, validation, and synchronization of data among heterogenous source and destination applications" '178 pat. at col. 2, lines 35-38. Data validation and data synchronization among heterogenous source and destination applications are beyond the scope of a data warehouse in an ETL system. ETL simply loads data into a data store without regard to how it will be used by an application and has no knowledge of, and does not interact with, a destination application.

With these glaring holes in *every* Ground of Petitioner's argument, the merits of this case "tip the balance" in favor of Patent Owner, and institution should be denied. *See Fintiv*, Paper 15 at 15.

V. THE PETITION SHOULD BE DENIED BECAUSE NO GROUND ESTABLISHES A REASONABLE LIKLIHOOD OF SUCCESS.

Petitioner has failed to show that any of its Grounds 1-7 establish a reasonable likelihood that at least one of the claims challenged in the petition is unpatentable. Suresh fails to teach the challenged claims. In particular, Suresh

fails to teach or suggest many of the recited limitations of independent claims 1 and 23, including “destination applications,” “a repository of information relating to the source and destination applications,” “[the repository including . . .] a first module including a plurality of instruction sets, each instruction of each instruction set activating a data element,” and “configuration data storage for storing configuration data describing data in the source applications / “configuration data storage for storing configuration data relating to the source applications.”

Petitioner also failed to provide any evidence of what recited limitations are not found in Suresh under its obviousness theories and how a person of ordinary skill in the art would have been within the ordinary skill in the art or would have been motivated to combine such information to yield the challenged claims.

A. Petitioner Failed to Articulate a Motivation to Combine For its § 103 Obvious Analysis.

As the Federal Circuit has explained, “obviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention.” *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed Cir. 2015). Petitioners must provide at least “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Absent such information, Petitioner cannot

demonstrate a reasonable likelihood of success of prevailing with respect to at least one challenged claim.

Petitioner bases each of its seven invalidity grounds on § 103 obviousness. Pet. at 22. Turning to limitation 1.3, Petitioner alleges without any analysis that U.S. Patent 6,014,670 “teaches that a POSITA knew that the repository is connected to the transformation engine,” and therefore concludes that this limitation is obvious. Pet. at 36-37. But Petitioner’s argument is based on the teachings of the ’670 patent, *not on the teachings of Suresh*. This is improper. Petitioner cannot impute the teachings of the ’670 patent—a separate and distinct disclosure—into Suresh.

Merely alleging a common assignee between Suresh and the ’670 Patent does not cure this deficiency. Rather Petitioner must identify the differences between Suresh and the claimed invention and provide a motivation to combine Suresh with the ’670 Patent. But Petitioner failed to provide *any* motivation to combine or rational underpinnings of its legal conclusion of obviousness based on the combination of Suresh and the ’670 Patent. This is improper and confirms that Petitioner’s invalidity arguments are based on improper hindsight reconstruction. Because this deficiency permeates independent claims 1 (Pet. at 36-37) and 23 (Pet. at 56), Petitioner has not demonstrated that *any* of the challenged claims are reasonably likely to be invalid. Accordingly, Petitioner failed to meet its burden of

demonstrating a reasonable likelihood of prevailing with respect to at least one challenged claim.

Except for limitation 1.3, Pet. at 34-35, Petitioner never identified the limitations not disclosed by Suresh. Nor did Petitioner provide any semblance of a motivation to combine or rational reasoning underpinning its legal conclusion of obviousness. This is improper and confirms that Petitioner's invalidity arguments are based on improper hindsight reconstruction. Consequently, Petitioner cannot show that a reasonable likelihood of prevailing on at least one of the challenged claims.

B. None of the Suresh, Abrams, Powers, Beauchamp, Boothby, or Weyman, Nor Any Combination Thereof Renders Obvious any of the Challenged Claims.

In its asserted obviousness grounds, Petitioner relies solely on Suresh as teaching the limitations of independent claims 1 and 23. Even if Petitioner had established a motivation to combine (it has not), Petitioner's reliance on Suresh as rendering obvious most (if not all) limitations in all the challenged claims is misplaced. Such combination fails to render the challenged claims obvious for several reasons, and Petitioner has not shown a reasonable likelihood that any of these challenged claims will be found unpatentable in view Suresh alone or in combination with another reference.

1. IBM failed to show that Suresh teaches or suggests “destination applications” in the challenged claims.

IBM has failed to show that Suresh teaches or suggests “destination applications” as recited in independent claims 1 and 23. IBM points “data warehouses and data marts” as applications by stating that “Suresh’s systems are software applications running on computers to perform data management tasks.” Pet. at 28-29. However, Petitioner failed to show how data warehouses and data marts are business software applications such as accounting and sales as described in the ’178 patent.

The petitioner misleadingly quotes only a part of Microsoft’s dictionary definition of “application” to broadly obfuscate its meaning. Microsoft dictionary defines application as “a program designed to assist in the performance of a specific task such as word processing, accounting or inventory management.” Ex. 2020. But Suresh does not disclose that a data warehouse (or data mart) performs any specific task such as word processing, accounting or inventory management. Furthermore, the term “applications” in the ’178 patent relates to enterprise application integration (EAI) and means “enterprise/business applications” such as financial operations, human resources, shipping and receiving per our spec. *See* ’178 patent, col. 1, lines 5-6, 14-20 and col. 4, lines 7-17.

Thus, IBM has failed to show how Suresh discloses destination applications, let alone heterogeneous applications, even according to its erroneous construction

of “application.” A database merely stores data, which may be accessed by an application, but is not an application itself. *See* ’178 patent, col. 8, lines 46-47. Consequently, IBM failed to show that Suresh discloses a necessary limitation of *all* challenged claims, namely a destination application.

2. IBM failed to show that Suresh teaches or suggests “integrating data among heterogenous source applications and destination applications” in independent claims 1 and 23.

The petitioner mischaracterizes the ’178 patent as “integration of data,” *see* Pet. at 24. (“Like the ’178 patent, Suresh is directed to data integration through a data extraction/transformation/loading (ETL) process.”), instead of integration of applications. As an initial matter, Suresh does not have a single reference to the word “integrate” or “integration,” let alone integration of applications.

Furthermore, as discussed above, the ’178 patent is directed toward application integration. *See* ’178 pat. at col. 1, lines 5-8. (“The present invention relates generally to Enterprise Application Integration (“EAI”) software, and more particularly to a configurable software system for providing migration of data among heterogeneous applications.”). The ’178 patent teaches that EAI is related to integrating software applications. *See* ’178 pat. at col. 1, lines 14-20 (“EAI software is generally designed to address the need of business to integrate various business_software applications employed by the diverse operating sectors of a single business organization (for example, financial operations, human resources,

shipping and receiving, etc.), or by such operating sectors of multiple organizations.”). Even a contemporaneous patent cited by Petitioner recognizes that data warehouses and data marts are not options for accessing data from ERP applications. *See* Ex. 1016, col. 2, lines 64-66 (“the options for getting data into and out of an ERP system preclude known approaches used for data warehousing”). Because Suresh merely discloses loading of extracted transformed data to a data warehouse/mart completely devoid of any business software applications—not integration among heterogeneous source and destination applications—Petitioner cannot show a reasonable likelihood of the unpatentability of at least one challenged claim.

3. IBM failed to show that Suresh teaches or suggests “a repository of information relating to the source and destination applications” in the challenged claims.

IBM points to a client-created repository of mapping information as allegedly meeting the element “a repository of information relating to the source and destination applications” in independent claims 1 and 23. Pet. at 29. IBM’s alleged proof fails for three reasons. First, the client-created repository “keep[s] track of session information as well as mapping information relating to how data is to be mapped and transformed from [source] tables of the operational database to target tables of data marts.” Suresh, col. 6, lines 23-29 (obvious error in original text refers to “target tables” when referring to the source “tables of the operational

database”). In other words, this “repository” relates to data mapping, which Suresh defines as “data movement . . . for each transformation component.” *Id.* at col. 9, lines 20-22. Data movement describes the transfer of data from operational databases to data marts via transformational components. Data movement relates to merely **moving** information from a source to a target, which is *not* information relating to any source or destination application as required by the challenged claims and has nothing to do with enabling **direct communication** (as clearly shown by the **bidirectional arrows** for both the source and destination applications in Figures 1, 2 and 5 of the ‘178 patent) for integration among heterogeneous source applications and destination applications in the context of application **integration**.

Second, none of the transformation components identified by Petitioner relate to any source or destination applications. Source transformations “provide[] data for the data mart/data warehouse,” Suresh, col. 10, lines 39-41, whereas target transformations “receive data from other transformations” and “make the data available to data mart users for decision support.” *Id.* at col. 10, lines 41-44. These transformations relate to source and destination of data. None of these transformations relate to the source or destination applications. “Expression transformations calculate a single result, using values from one or more ports.” Suresh, col. 10, lines 44-46. But there is no teaching or suggestion that these

transformations relate to source and destination *applications*. The system in Suresh lacks the details of the source and destination applications—instead, the source database will provide the requested data and the target database will receive the data that is provided to it based on the transformations for the particular ETL system. Moreover, the transformation components, including expression transformations are selected by the user, with no information in the repository related to any target database application. Similarly, the source application has no bearing to the transformation components selected. Because the “user **manually** chooses the transformation components necessary to accomplish the data ETL process,” the result of which is loaded onto a database, none of the transformation components in Suresh includes or relies on information relating to the source and destination applications. Suresh, col. 9, lines 6-8. The ETL process in Suresh is simply independent of the source and target applications because ETL is only concerned with translating data from one form to another and loading that transformed data into a data warehouse.

Petitioner has failed to demonstrate that Suresh teaches or suggests “a repository of information related to the source and destination applications” as required by the challenged claims.

4. IBM failed to show that Suresh teaches or suggests “[the repository including . . .] a first module including a plurality of instruction sets, each instruction of each instruction set activating a data element” in independent claims 1 and 23.

IBM failed to show that Suresh teaches or suggest that (i) each instruction set activates a data element and (ii) the repository includes the first module. In the Petition, IBM alleges that a “pipeline” manually arranged by the user is an “instruction set” of the first module and relies on each transformation component as meeting both the “instruction” and “data element” limitations. Pet. at 32. This allegation is a failure of proof. The independent claims recite that “each instruction of each instruction set activating a data element,” requiring “instructions” to be distinct from “data elements.” ’178 pat. at cl. 1 and 23. Relying on transformation components as both instructions and data elements cannot show that Suresh teaches or suggests that “each instruction set of each instruction activating a data element” in any of the challenged claims. This deficiency precludes Petitioner from demonstrating a reasonable likelihood of the unpatentability of at least one challenged claim.

Nor can Petitioner show that the alleged repository in Suresh includes the pipeline. In Suresh, the “repository” maintains “mapping information relating to how data is mapped and transformed from the target tables of the operation databases to target tables of data marts.” Suresh, col. 6, lines 25-29. But mapping information relates to the data movement between transformation components in a

pipeline. *Id.*, col. 9, lines 20-22. Because the mapping information does not include the transformation components in the pipeline, the repository cannot include the first module. IBM has failed to show that the repository includes the first module in any of the challenged claims.

5. IBM failed to show that Suresh teaches or suggests “configuration data storage for storing configuration data describing data in the source applications” as recited in dependent claim 5 and “configuration data storage for storing configuration data relating to the source applications” as recited in independent claim 23.

IBM relies on the repository, the source table, and mapping information relating to the translation of the source data during the ETL process as meeting this element. Pet. at 48-49. First, the repository cannot meet this element since this element is distinct from the repository term in the independent claim. Petitioner has not identified any additional aspect of the repository beyond that it identified in claim 1. Second, mapping and transformation of the source data relates to modification of the source data. Petitioner has not shown that this functionality is configuration data relating to source applications because modification of the source data is not evidence of configuration data relating to source applications. Mapping information describes how data is moved and translated. It does not describe data in the source table because the source table is a copy of the data in the source database. Third, a copy of data is simply that—it does not describe the data in the source applications, as recited in these claims. Furthermore, executing

pipelined transformations in parallel with dedicated threads again relates to the transformation of data, not to configuration data relating to source applications.

Accordingly, Petitioner cannot show the unpatentability of dependent claim 5 and independent claim 23 and the challenged claims dependent therefrom.

C. The Addition of Abrams, Powers, Beauchamp, Boothby, and Weyman to the Suresh Combination Fails to Render Obvious the Challenged Claims

Petitioner does not allege that Abrams, Powers, Beauchamp, Boothby, or Weyman teaches or suggests the limitations not found in Suresh, namely, “destination applications,” “integrating data among heterogenous source applications and destination applications,” “a repository of information relating to the source and destination applications,” “[the repository including . . .] a first module including a plurality of instruction sets, each instruction of each instruction set activating a data element,” and “configuration data storage for storing configuration data describing data in the source applications / “configuration data storage for storing configuration data relating to the source applications.”

Accordingly, the addition of these references does not demonstrate a reasonable likelihood of the unpatentability of at least one challenged claim.

Suresh fails to disclose, teach, or suggest integrating data among source and destination applications, and the secondary references do not help. Suresh’s reference to “target databases,” which are “data warehouses and/or data marts into

which transformed data is loaded” does not anticipate or suggest target applications, let alone heterogeneous target applications such as accounting, sales, etc. Nor do any of the secondary references. In Suresh, “application” refers to applying transformation within the ETL system, not a destination application (e.g., an ERP application) that requests, receives and uses the data after the source and destination applications have been integrated.

VI. CONCLUSION

IBM’s Petition should be denied under *Fintiv* in view of the district court proceeding and its upcoming trial. On the merits, IBM’s arguments fail to teach key limitations of the challenged claims. IBM has failed to meet its burden, and for the foregoing reasons, denial of institution is appropriate.

Respectfully submitted,

Date: January 18, 2023

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CERTIFICATION UNDER 37 CFR § 42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner's Preliminary Response totals 8,011 words, which is fewer than the 14,000 allowed under 37 CFR § 42.24.

Dated: January 18, 2023

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4)(i) et seq. and 42.105(b), the undersigned certifies that on January 18, 2023, a complete and entire copy of this Patent Owner's Preliminary Response and all supporting exhibits were provided via E-Mail to the Petitioner by serving the correspondence address of record as follows:

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