

'911 Patent Claims Are Patentable Over Rohall in View of Schiavone and Rohall in View of Schiavone and Gomes

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Roadmap

1. The Combination of Rohall in View of Schiavone Does Not Render Obvious “*wherein different rules of the compliance policy are applicable to different ones of the plurality of sent submessages.*” (Claims 1, 10, 27)
2. The Combination of Rohall in View of Schiavone Does Not Render Obvious Applying *Rules* at the *Submessage* Level. (All Claims)
3. “*Relational References*” Should Be Construed to Be Limited to References in a Relational Model, and Rohall and Schiavone Do Not Teach or Suggest a Relational Model. (All Claims)
4. The Combination of Rohall in View of Schiavone and Gomes Does Not Render Obvious Claims 9 or 27. (Claims 9 & 27)

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3. “*Relational References*” Should Be Construed to Be Limited to References in a Relational Model, and Rohall and Schiavone Do Not Teach or Suggest a Relational Model. (All Claims)
4. The Combination of Rohall in View of Schiavone and Gomes Does Not Render Obvious Claims 9 or 27. (Claims 9 & 27)

Claims 1, 10, and 27 Include “Meaningfully Different Features” Than Claim 13

- As the Board correctly found – claim 1 requires:
 - *“wherein different rules of the compliance policy are applicable to different ones of the plurality of sent submessages.”*
- Claims 10 and 27 have the same limitation.

Decision (Paper 12), at 26;
Resp. (Paper 16, at 37-40

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Board's Preliminary Comments Still Stand

- In the Institution Decision, the Board stated:
 - “Although Petitioner cites to and reproduces disclosures in Schiavone regarding the same message being treated differently based on its recipients, on this preliminary record, we are uncertain as to how those disclosures describe ‘different rules’ that are applied to ‘different . . . submessages.’”
 - Institution Decision, at 27 (citing Pet., 44-45).
 - Petitioner’s Reply (Reply, at 9-14) does not even acknowledge the Board’s findings on this limitation, let alone point to evidence to overcome them.

Decision (Paper 12), at 27; Resp. (Paper

Padmanabhan & Dawson, P.L.L.C. 16), at 37-40; Sur-Reply (Paper 21), at 1-3 5

Schiavone Sentences Relied Upon in Petition (Pet., at 44-45)

[0033] In the example of FIG. 2, consider that the recipient's profile data indicates that the recipient lives in the US and is 45 years of age. Accordingly, it is determined that the recipient's profile data is in compliance, i.e., compatible, with the applicable rule in step 32 and **the electronic mail message** is delivered to the recipient, e.g. placed in the recipient's electronic "inbox" and/or displayed to the recipient, as shown at step 34. The transaction then ends, as shown at step 37. For example, **the same message** sent to a 10 year old in France could result in a determination of compliance and delivery of the message because the rule (and COPPA law) is applicable only to residents of the US. Compliance with local laws is thereby ensured.

Schiavone (EX1006), at ¶33.

- **One** rule applied
- To the **SAME** message
- Sent to different recipients

So, this example does not describe “‘different rules’ that are applied to ‘different . . . submessages.’”

Decision (Paper 12), at 27; Resp. (Paper 16), at 37-40 (citing EX2005, ¶¶149-155); Sur-Reply (Paper 21), at 2-3.

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Schiavone Sentences Relied Upon in Petition (Pet., at 44-45)

Consequently, a sender could select several different rule sets to automate their compliance with selected US federal and local laws and regulations and, if desired, varying laws and regulations enacted by the European Union and elsewhere globally.

Schiavone (EX1006), at ¶29.

- This sentence does not describe application of rules to *submessages*.
- It simply address selection of rules.
- So, this passage does not describe “‘different rules’ that are applied to ‘different . . . submessages.’”

Decision (Paper 12), at 27; Resp. (Paper 16), at 37-40 (citing EX2005, ¶¶149-155); Sur-Reply (Paper 21), at 2-3.

Padmanabhan & Dawson, P.L.L.C.

Schiavone Sentences Relied Upon in Petition (Pet., at 44-45)

“The rules include logic for processing of incoming messages. A common set of rules is used by two or more users of the system.”

Schiavone (EX1006), ¶7.

- This sentence does not describe application of rules to *submessages*.
- It says the rules include logic for processing incoming messages.
- So, this passage does not describe “‘different rules’ that are applied to ‘different . . . submessages.’”

Resp. (Paper 16), at 37-40 (citing EX2005, ¶¶149-155); Sur-Reply (Paper 21), at 3

Schiavone Sentences Relied Upon in Petition (Pet., at 44-45)

[0016] For example, rules may be implemented for a wide variety of applications, including compliance with applicable laws. Accordingly, a mail message can be automatically processed and consequently filtered or routed based on a patchwork of applicable laws, regulations and best practices applicable to the specific sender, receiver and content of the e-mail message. For example, a message may be

Schiavone (EX1006), at ¶16.

- This sentence points out that a mail message may be processed based on a number of rules.
- Sentences are to **a single message**.
- So, this passage does not describe “‘different rules’ that are applied to ‘different . . . submessages.’”

Resp. (Paper 16), at 37-40 (citing EX2005, ¶¶149-155); Sur-Reply (Paper 21), at 3

Petitioner's Expert Relies on These Same Sentences Rejected by the Board

- Petitioner's Expert at relies on the same four sentences from Schiavone quoted above. *See* Ex. 1003, ¶¶195-197 (citing (EX1006), ¶¶ 33, 29, 7, 16).
 - This evidence fails to disclose applying “*different rules*” to “*different... submessages*.”
- The only other citation for this limitation in Petitioner's Expert Declaration is to Paragraph 17 of Schiavone. *See* EX1003, ¶198 (citing EX1006, ¶17).
 - This paragraph relates to modifying the “content” of the e-mail message; it does not discuss applying different rules to different submessages. *See* EX1006, ¶17.

Paragraph 17 of Schiavone Fails to Disclose this Limitation

[0017] In some embodiments, the rule may require modification of the content of the message as a function of such recipient profile data. For example, an electronic mail mes-

Patent Owner's Expert testimony regarding ¶17:

153. Finally, Dr. Black cites the statement in Schiavone that users can modify messages before sending them to customize them for the recipient. EX1003, ¶ 197. This disclosure, however, relates to customizing the content of a message; it teaches and discloses nothing about customizing the rules that are applicable to submessages. There is no disclosure in Schiavone of applying different rules to different submessages in a thread.

- Discusses modifying “the content.”
- Discloses applying this rule to “the message.”
- So, this passage does not describe “‘different rules’ that are applied to ‘different . . . submessages.’”

Resp. (Paper 16), at 37-40 (citing EX2005, ¶¶149-155); Sur-Reply (Paper 21), at 3

Petitioner's Error Is Conflating "Different Messages" with *Submessages*

152. Dr. Black also argues that Schiavone teaches different rules that apply to different messages (EX1003, ¶ 197), but Schiavone does not disclose different rules applying to different parts of a message (i.e., to different submessages).

- Petitioner's use of "different messages" fails to address the claim requirement that "different rules" apply to different parts of a message (i.e., to "different ... submessages").
- This error permeates the reliance by Petitioner on evidence cited in its Reply.

Resp. (Paper 14), at 39
(citing EX2005, ¶152)

The Citation in Petitioner's Reply to Paragraph 36 of Schiavone Fares No Better

- Schiavone, ¶36:

[0036] For example, transactions in accordance with the present invention may include work flow processing transactions, e.g., by providing a rule requiring approval and/or handling of a given electronic mail message by more than one recipient and/or according to a predetermined deadline schedule. For example, a company-developed rule may require internal approval (e.g., by clicking an appropriate button or typing OK, etc.) from a purchasing agent, a supervisor, an accountant, and a vice-president before a purchase order is forwarded to a vendor. Accordingly, although the mail message is prepared by the purchasing agent and addressed to the vendor, the electronic mail message will be processed according to the rule and forwarded to each individual for approval before the message is able to be sent to the vendor.

- Example in paragraph 36 relates to **the same message**.
- The example is applying the rule of having multiple approvals to **the same mail message**.
- This example is **not** evidence of “different rules” applied to “different . . . submessages.”

Sur-Reply (Paper 21), at 4
(citing Reply, at 12)

Citations in Petitioner's Reply Fare No Better

- Schiavone, ¶42

[0042] It should also be noted that the present invention can be used for more than just the most common forms of electronic mail messages. For example, the present invention may also advantageously be used for instant messages such as AOL's Instant Messenger messages or ICQ's instant messages. For example, instant messages can be sent as COPPA compliant by specifying a COPPA rule as associated with the instant messages. Any incoming instant messages would then be check against the recipient profile information in accordance with the COPPA rule to determine whether the instant message should be delivered or rejected (for non-compliance of the recipient data with the rule). Additionally,

- Example is applying a single rule (e.g., COPPA) to an incoming instant message.
- This paragraph does not involve the different parts of an e-mail message ("*submessages*") at all.
- This example is not evidence of "different rules" applied to "different . . . submessages."

Sur-Reply (Paper 21), at 4
(citing Reply, at 12)

Microsoft Mischaracterizes Dr. Khan's Testimony

- Dr. Khan's testimony (EX1022) from pages 62-70 confirms the following:
 1. Neither Schiavone nor the hypothetical address applying rules at the submessage level. *See, e.g.*, EX2005, ¶¶139-148; EX1022, 65:2-7.
 2. To the extent Dr. Khan was asked to guess, he stated that Schiavone applies the rule to the current message – never looks at the other “submessage.” EX1022,68:24-25; *see also* EX1006.
 3. In other words, if the messages are from A to B, and B responds back to A, only the most recent message B responding to A is considered. EX1022,68:24-69:4.
 - As Dr. Khan has explained, Schiavone only discusses treating each message as a whole (i.e., a complete conversation thread). *See* EX2005, ¶¶139-148.
 4. Additionally, the hypothetical involves a single rule (COPPA). EX1022,69:1-4. Not “*different rules.*”

Response (Paper 14), at 31 (citing EX2005, ¶¶139-148), 34, 56;
Sur-Reply (Paper 21), at 4-5; Mt. to Exclude (Paper 29), at 1-7

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Petitioner Does Not Rely on Rohall for the Applicability of “*Different Rules*” Limitation

195. Although Rohall does not expressly disclose these elements,

Black Decl. (EX1003),
¶195

Referring to the following claim limitations:

[1.6] wherein different rules of the compliance policy are applicable to different ones of the plurality of sent submessages;

[10.6] wherein different rules of the compliance policy are applicable to different ones of the plurality of sent submessages;

[13.5] selectively applying rules of the compliance policy to the sent submessages

Resp. (Paper 14), at 38 (citing EX1003, ¶195 & Pet., at 44)

Schiavone Does Not Address Applying Rules to *Submessages*

150. Dr. Black admits that these limitations are missing from Rohall.

EX1003, ¶ 195. In my opinion, Schiavone also does not disclose either of these limitations. This is because **Schiavone does not discuss the different components of email threads** (i.e., original message, replies, and forwards) **at all**. Instead, when Schiavone discusses replies or forwards, Schiavone is discussing the action of replying or forwarding an e-mail; Schiavone is not discussing replies or forwards as components within a message thread. **Because Schiavone does not discuss the different components of e-mail threads at all, Schiavone also does not discuss applying different rules to different parts of a message.**

Petitioner's Proposed Combination Fails Short

- Petitioner relies on Rohall for the “*submessages*” requirement.
- But Rohall does **not** teach handling “*submessages*” individually. Rohall teaches handling an e-mail thread as a “single entity” (EX1005, ¶13).

[0013] In accordance with the present invention, an electronic mail conversation thread may be handled or processed as a single entity with functions similar to those typically

Sur-Reply (Paper 21), at 5

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2. The Combination of Rohall in View of Schiavone Does Not Render Obvious Applying *Rules* at the *Submessage* Level. (All Claims)
3. “*Relational References*” Should Be Construed to Be Limited to References in a Relational Model, and Rohall and Schiavone Do Not Teach or Suggest a Relational Model. (All Claims)
4. The Combination of Rohall in View of Schiavone and Gomes Does Not Render Obvious Claims 9 or 27. (Claims 9 & 27)

Rohall, in View of Schiavone, Does Not
Disclose, Teach or Suggest
Applying Rules of the Compliance Policy
at the *Submessage* Level

The Claim Language

- All claims: “rule elements describing whether the rule is applicable to a **sent submessage**.”
 - Claims 1-12 and 27-29: “**rules** of the compliance policy are **applicable to** different ones of the plurality of **submessages**.”
 - Claims 13-26: “selectively **applying rules** of the compliance policy **to the sent submessages**.”

Petitioner Concedes Rohall Does Not Disclose These Claim Elements

195. Although Rohall does not expressly disclose these elements,

g. Rules of the compliance policy selectively apply to submessages

[1.6] wherein different rules of the compliance policy are applicable to different ones of the plurality of sent submessages;

[10.6] wherein different rules of the compliance policy are applicable to different ones of the plurality of sent submessages;

[13.5] selectively applying rules of the compliance policy to the sent submessages

Resp. (Paper 14), at 34
(citing EX1003, ¶195)

Schiavone Does Not Disclose Applying *Rules* At the *Submessage* Level

142. In my opinion, Schiavone also does not disclose applying rules to submessages. This is because Schiavone does not discuss the different components of email threads (i.e., original message, replies, and forwards) – i.e., “submessages” – at all. Instead, when Schiavone discusses replies or forwards, Schiavone is discussing the action of replying or forwarding an e-mail. E.g., EX1006, [0007] (“a reply is forward[ed] to the vendor”). Schiavone does not, however, discuss taking action on only a single component of a conversation thread. Because Schiavone does not discuss the different components of e-mail threads (i.e., “submessages”) at all, Schiavone also does not discuss applying rules at the submessage level.

Schiavone discloses applying rules the e-mail message as a whole – **NOT** to components of an e-mail (i.e., submessages).

Resp. (Paper 14), at 34-37
(citing EX2005, ¶¶139-148);
Sur-Reply (Paper 21), at 5-9

Petitioner's Expert's Example Fails to Teach Applying *Rules* at the *Submessage* Level

- Petitioner's expert's example:
 - "Schiavone teaches an example in which email messages set to US recipients are delivered to recipients in accordance with laws for US residents, whereas email messages sent to recipients in France are delivered to recipients in accordance with laws for French residents."
 - Ex. 1003, ¶195.
- Nothing in this example discusses applying rules at the **submessage level**.
- The example discusses treatment of **a message as a whole**.

Resp. (Paper 14), at 11-12, 29-30 (citing EX1006,[0007]) & EX2005, ¶¶63-71), 34-37 (citing EX2005, ¶¶139-148); Sur-Reply (Paper 21), at 5-9
Padmanabhan & Dawson, P.L.L.C.

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“The rules include logic for processing of incoming messages. A common set of rules is used by two or more users of the system.”

Schiavone, ¶7.

- This sentence does not describe application of rules to submessages.
- It says the rules include logic for processing incoming messages.
- So, this passage does not describe applying rules to only one **part** of a message (i.e., **submessage**).

Resp. (Paper 14), at 34-37
(citing EX2005, ¶¶139-148);
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- This sentence points out that a mail message may be processed based on a number of rules.
- Sentences are to an entire e-mail message.
- So, this passage does not describe applying rules to only one **part** of a message (i.e., **submessage**).

Resp. (Paper 14), at 34-37
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[0017] In some embodiments, the rule may require modification of the content of the message as a function of such recipient profile data. For example, an electronic mail mes-

Patent Owner's Expert testimony on ¶17:

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- Discusses modifying “the content.”
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Resp. (Paper 14), at 35-36 (citing EX1003, ¶197 & EX2005 ¶145) & 39 (citing EX1003, ¶153); Sur-Reply (Paper 21), at 5-9

Rohall's "Techniques" – Which Petitioner's Combination Adopts – Treat E-mail Threads "As a Single Entity"

- Rohall's invention is titled "Method and Apparatus for **Handling Conversation Threads ... as a Single Entity**." EX1005.
 - Rohall constructs and stores an "**entire message thread**" (or "complete thread tree") "**as a single entity**." *Id.*[0009] &[0010].
 - Then, Rohall handles/processes each "thread" "**as a single entity**." EX1005,[0013].
 - Rohall states that "operation[s] on the data structure" apply to "**all** ancestor documents in the conversation thread." *Id.*
- "Petitioner's combination adopts Rohall's 'techniques' (unchanged). Pet,12&EX1003,¶126; *accord id.*¶127.
 - Rohall's "techniques" operate on the entire-thread level.
- Petitioner presents **no evidence** that a PHOSITA would be motivated to operate on (e.g., apply rules to) Rohall's individual message items.

Resp. (Paper 14), at 36-37 (citing EX2005, ¶¶147-148); Sur-Reply (Paper 21), at 1, 6-9, 23

Rohall Teaches Away From Acting On Parts Of An E-mail Thread

- Rohall's problem is based on **not** having a complete e-mail thread.
- In Rohall (EX1005, ¶8), as part of describing the problems, Rohall states that "users must locate and act on each message **individually**."
- Rohall's solution is an "electronic mail conversation thread [that] may be **handled or processed as a single entity** . . . the data structure **representing all ancestor documents** in the conversation thread." EX1005, ¶13.
- As such, the combination of Rohall and Schiavone cannot disclose applying rules at the submessage level – Rohall wants to solve the problem of having parts of an e-mail thread and Schiavone never addresses components of an e-mail thread.

Resp. (Paper 14), at 36-37
(citing EX2005, ¶¶147-148);
Sur-Reply (Paper 21), at 8-9

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Claim Construction – “*relational references*”

Claim language from claim 1:

- “*message database comprising a message container containing relational references pointing to a plurality of sent submessages stored externally to the message container in the message database*”
- EX1001, Claim 1.

Only Patent Owner Provides Expert Testimony On “*Relational References*”

- Patent Owner relies on expert testimony to:
 - describe hierarchical models and relational models used in databases; and
 - address “pointers” and provide testimony that “[p]ointers in languages like C/C++ cannot be used in connect tables in a relational model.” Ex. 2005, ¶¶35, 122.
- Petitioner does **not** provide expert testimony to challenge the teachings from Patent Owner’s expert.
 - It is only Petitioner’s **attorneys** who argue how “a POSITA would understand” the term. Reply, 7.
 - But “[a]ttorney argument is not evidence’ and cannot rebut other admitted evidence.”
 - *Elbit Systems of America, LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1359 (Fed.Cir.2018).

Resp. (Paper 14), at 17-24 & 40-45
(citing EX2005, ¶¶ 32-35 & 103-
124); Sur-Reply (Paper 21), at 9-20.

‘911 Patent – Spec Requires “A Relational Model”

In the embodiment of FIG. 1, the messaging system shares characteristics with the system described in U.S. patent application Ser. No. 10/789,461, which is incorporated by reference herein. As described in that application, the messaging system uses a relational model to represent and store messages exchanged among the end-users.

- Specification makes clear that the “messaging system” uses “a relational model.”
- The claim term “*relational references*” should be read in light of this disclosure.
- Disclosure does **not** say the system uses a “hierarchical model.”

“A Relational Model,” as Understood by a POSA

104. A skilled artisan would understand the meaning of “a relational model” in the ‘911 Patent. Entire chapters of textbooks on database systems from the early 2000s are devoted to the “relational model.” EX2004, at 7 & 17.



PART 2: RELATIONAL MODEL, LANGUAGES, AND SYSTEMS 193

Chapter 7 The Relational Data Model, Relational Constraints, and the Relational Algebra 195

7.1 Relational Model Concepts 196

Resp. (Paper 14), at 17 & n. 422-23
(citing EX2005, ¶104); EX2005, ¶104
(citing EX2004, at 7 & 17)

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“A Relational Model,” as Understood by a POSA

- Petitioner does not address Patent Owner’s evidence or expert testimony (*see generally* Reply), and this evidence undercuts Petitioners point that the ‘911 Patent or the ‘461 Application do not further define the term.
- The undisputed evidence shows that the term is well understood by a POSA.
 - There are textbook chapters dedicated to describing the concepts for a “relational model” used in databases.
- As such, POSA’s understanding should be applied.
- Only Patent Owner is applying the POSA’s understanding of a “relational model.”

Resp. (Paper 14), at 17-24 & 40-45
(citing EX2005, ¶¶ 103-124); Sur-
Reply (Paper 21), at 9-20.

'461 Appln Supports Patent Owner's Construction

- '461 Appln – Abstract (EX2010):
 - “A messaging system uses a relational model to represent messages exchanged among end-users of the system.”
- The '911 Patent incorporates the '461 Appln explicitly for the disclosure of
 - “a messaging system [that] uses a relational model to represent and store messages exchanged among the end-users.”
 - EX1001, 2:57-62.

Resp. (Paper 14), at 17-19 (citing EX2005, ¶¶48-53, 106, 111)

'461 Appln Teaches Use of Tables

50. The '461 Application discusses using relational databases and organizing data as sets of tables. EX2010, [0021] (“the database module 114 includes a relational database and the data are organized as sets of tables from which data can be accessed or reassembled in many different ways without having to reorganize the tables” (emphasis added)). Because the '911 Patent incorporates

- Importance – the relational model uses tables:

26. The relational data model, introduced by Edgar Codd in 1970, transformed the design and implementation of databases and continues to serve as the foundation for modern relational database management systems (RDBMS). The relational model structures data in tables (also called relations) composed of

‘461 Appln’s Use of “Pointer”

52. The ‘461 Application – which uses a relational model – uses the word “pointer.” EX2010, [0041] & [0046]. As used in the ‘461 Application, “pointers” do not refer to “pointers” in traditional programming language. This is known because the ‘461 Application uses a relational model, but the relational model does not use “pointers” as used in traditional programming languages. Instead of using “pointers” as used in traditional programming language, the ‘461 Application uses “pointers” to refer to a logical reference as used in the relational model. *See* EX2004, at 948 (stating that “a pointer” can be “a physical one containing an address, or a logical one containing a key”).

- Testimony establishing that the use of “pointers” in the ‘461 Appln is not to “pointers” in the “traditional programming language.”
- Why?
- Because the relational model does not use such pointers.

UNREBUTTED EXPERT TESTIMONY

Resp. (Paper 14), at 12 & 17 (citing EX2005, ¶¶48-53 (discussing ‘461 Application)), 23-25 & n. 5 (citing EX2005, ¶¶ 30, 32-35, 52, 119-124); *see generally* Reply; Sur-Reply (Paper 21), at 11-13, 17, 20-21

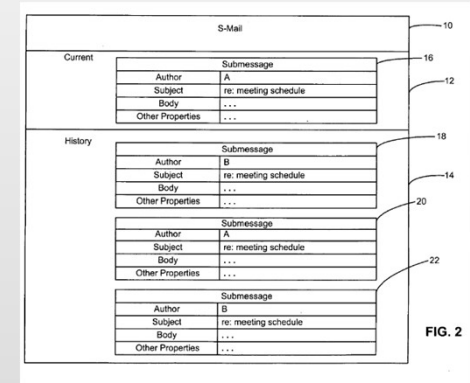
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'461 Appln's Use of "Pointer"

Patent Owner's Expert Analysis - **UNREBUTTED EXPERT TESTIMONY**

53. When the '461 Application discusses a "pointer," it is in the context of the relational model. For example, the discussion of a "pointer" in Paragraph 46 uses a relational model, as demonstrated by its reference to "the relational messaging system." EX2010, [0046] (emphasis added). Similarly, the discussion of

a "pointer" in Paragraph 41 is discussing Figure 2, which uses a "database" and tables, according to the relational model. *Id.* [0041], Fig. 2; *see also id.* [0035] (discussing "database entry" and "database module" in connection with FIG. 2).



Resp. (Paper 14), at 12 & 17 (citing EX2005, ¶¶48-53 (discussing '461 Application)), 23-25 & n. 5 (citing EX2005, ¶¶ 30, 32-35, 52, 119-124); *see generally* Reply; Sur-Reply (Paper 21), at 11-13, 17, 20-21

Padmanabhan & Dawson, P.L.L.C.

Use of “*Relational*” as Adjective in the ‘461 Appln

111. In the ‘461 Application, the word “relational” modifies several other nouns, including a “relational data store” (*id.* [0018]), a “relational messaging system” (*id.* [0017]), “relational database” (*id.* [0021]), and “relational records.”

Each use refers to use of the relational model

Id. [0044]. In each of these instances, the word “relational” refers to use of a relational model. This is apparent from the context in which the terms appear,

Resp. (Paper 14), at 18-19
(citing EX2005, ¶111)

Use of “*Relational*” as Adjective in the ‘461 Appln

Patent Owner’s Expert then points to the following (Ex. 2005, ¶111):

- the messaging system uses a relational model (*id.* [0010]);
- the environment includes a relational messaging system (*id.*[0017]);
- “[t]he relational messaging system provides a relational data store ...” (*id.* [0018]);
- the database module in the “relational messaging system” “includes a relational database” (*id.* [0021]); and
- in the “relational messaging system,” the inbox and outboxes are in fact logical entities formed from the relational records in the database” *Id.* [0044].

Resp. (Paper 14), at 18-19
(citing EX2005, ¶111)

'911 Patent Shows It is Using the Relational Model

Recall that in the '911 Patent, each tuple or sub-message is assigned a **unique ID**, which serves as the primary key for that relation:

These data are stored as logically discrete components, meaning that each message component can be accessed separately. In one embodiment, the message database 416 associates a unique ID with each message component. These IDs are utilized throughout the messaging system to refer to the components. In one embodiment, the IDs are relatively long in order to reduce the chance that a malicious actor can forge a valid ID.

EX1001, 5:55-60.

Ex. 2005, ¶120

Resp. (Paper 14), at 19 &
23 (citing EX2005, ¶120)

Padmanabhan & Dawson, P.L.L.C.

1998 Reference to “*Relational References*”

The relational database model uses a series of references between tables. These references are created as a relationship between groups of records. A good example of a relational database is the activity codes used in Primavera scheduling software. Primavera has a pull-down menu that allows the user to develop a dictionary for a custom code value. The user defines the desired length of the code value (one character, two characters, and so on), the labels to be used for each code value, and the equivalent meaning of the value. Exhibit 3 shows an example of an activity code dictionary.

Once the dictionary table is set up, the scheduler can use the reference value of either A, B, or C to identify the project name associated with each activity, as opposed to typing the entire project name. Relational databases often consist of several tables like the one in Exhibit 3, each with a defined relationship to another. Exhibit 4 depicts a relationship map for a Microsoft Access database.

The tables can be combined into new tables, which are called queries. Queries represent the real power behind relational databases, because they allow the data in separate tables to be combined, organized, and used to generate new data. Thus, new types of information can be developed from the information already contained in your database.

For example, let's suppose that a manager wanted to find out the number of times that each customer has contacted a specific employee. A new query would be created that listed each employee name, and due to the relational references, would count the number of times a customer was associated with the employee. These reports can be prepared rapidly, by anybody in the organization who learns to use the software.

EX2006, at 3.

- 1998 article on a “relational database model”:
 - Uses a “series of references between tables.”
 - Uses the phrase “relational references” in the context of a relational database model.

Resp. (Paper 14), at 19-20
(citing EX2006, at 3)

Traditional Pointers Cannot Connect Tables

122. Pointers in languages like C/C++ cannot be used to connect tables in a relational model. A pointer stores the memory address of a variable or object within a running program's memory, whereas database tables store data on disk. The memory locations of rows or records are not fixed, not exposed, and not meaningful outside the database engine. Therefore, traditional programming-language pointers cannot reference records in another table. Relational databases instead link tables through **relational references** such as primary keys, foreign keys, shared IDs, and join attributes. These are logical identifiers—not memory addresses.

Patent Owner's expert taught the basics of a relational database and pointed out that it uses tables.

- '461 Appln (incorporated by reference into '911 Patent) uses tables.
- 1998 article shows tables.
- Undisputed that a traditional pointer can't be used with tables.
 - Thus, excluding use of such pointers.

**UNREBUTTED EXPERT
TESTIMONY**

Resp. (Paper 14), at 19-20, 23-25 & 43 (citing EX2005, ¶¶32-35, 119-124); Sur-Reply, at 10-13, 15-16 & 20 (citing EX2005, ¶122)
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Petitioner's Basis for Construction Is Misplaced

- Petitioner relies on the portion of the sentence from ¶41 from the '461 Application that equates “a pointer” to being “a reference”:
 - “a pointer (i.e., a reference).”
- The claim term is “*relational* reference.”
 - This portion relied on by Petitioner does not have the term “*relational*.”
 - “*Relational*” in this context makes that the relational model is being used.
 - In the claimed phrase “*relational reference*,” the word “*relational*” must also be given meaning.
 - To a POSA, “*relational*” refers to the “relational model.”

Resp. (Paper 14), at 22-25; Sur-Reply (Paper 21), at 13-14 & 16-17

Patent Owner's Construction Does Not Render the Word "*Pointing*" Meaningless

- Claim phrase "*a message container containing relational references pointing to a plurality of sent submessages*"
- The word "*pointing*" is a verb.
- The term "*pointer*" is a noun.
- In the relational model, a traditional "pointer" is **not** used.
- However, in the relational model the verb "to point" is used as shown by the following sentence from the textbook:
 - "the arrowhead may **point** to the primary key of the referenced relation."
 - Ex. 2011, at 207.

Sur-Reply, at 14-15

The '911 Patent Does Not Use a Hierarchical Model

- In the Reply, Petitioner's attorneys argue that "Patent Owner's expert also stated that a message container and its submessages, as taught by the [']911 Patent, can be implemented using either a hierarchical or a relational model." Reply, 5-6 (citing EX1022, 6:14-23).
 - Not true. PO's expert was **not** testifying about **the '911 Patent**:
 - he was testifying about Paragraph 24 of his declaration, which cites to **a textbook** discussing different ways of associating a message container and its sub-messages. EX2005, ¶24 (citing EX2004).
 - The un rebutted evidence is that a skilled artisan would understand "*relational references*" in the '911 Patent to refer to "*references*" in a *relational* model. EX2006, ¶¶103-124.

Sur-Reply (Paper 21), at 17

Petitioner's Cases Do Not Support Its Argument

- Petitioner's attorneys argue that PO's proposed construction "improperly imports limitations from the specification," suggesting that PO should **not** consult the specification to determine what "*relational*" means. Reply,6.
 - But the specification is "the single best guide to the meaning of a disputed term," *Vitronics*, 90 F.3d at 1582,
- Neither of Petitioner's cases is on point.
 - In *Arlington*, the claim term was "flexing," but a party sought a construction that "flexing" "must be limited to cantilever flexing." The word "cantilever" did not appear in the claims. *Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 345 F.3d 1318, 1327 (Fed.Cir.2003).
 - In contrast, here, the claim term is not simply "*reference*," but a particular type of "*reference*": a "*relational*" *reference*.
 - Thus, there is no need to "import" the *relational* model: **the claim language itself** tells a skilled artisan that the *relational* model is used.
 - In *Abbott Labs*, the claim term being construed was "crystalline." The court found it proper to limit the claim term to a particular type of "crystalline," in part because "the exclusive focus" of the specification was on that crystal, even though other types of crystals were known in the art. *Abbott Lab'ys v. Sandoz, Inc.*, 566 F.3d 1282, 1289-91 (Fed. Cir. 2009).
 - Similarly, here, the only model for linking submessages discussed in the specification is the *relational* model. *Vitronics*, 90 F.3d at 1582.
 - The hierarchical model was known (Reply,5-6), but the specification **never discusses that model**.
 - Instead, the specification exclusively discusses the *relational* model and incorporates by reference the '461 Application (that also uses a *relational* model), and then the claims use the word "*relational*."

Sur-Reply (Paper 21), at 17-18

Rohall/Schiavone Does Not Disclose “*Relational References*” When Properly Construed

- Rohall doesn’t disclose a relational database.
- Schiavone does not disclose use of a relational database to store messages as claimed.

Resp. (Paper 14), at 17-24 & 40-44;
Sur-Reply (Paper 21), at 10-19

Roadmap

1. The Combination of Rohall in View of Schiavone Does Not Render Obvious “*wherein different rules of the compliance policy are applicable to different ones of the plurality of sent submessages.*” (Claims 1, 10, 27)
2. The Combination of Rohall in View of Schiavone Does Not Render Obvious Applying *Rules* at the *Submessage* Level. (All Claims)
3. “*Relational References*” Should Be Construed to Be Limited to References in a Relational Model, and Rohall and Schiavone Do Not Teach or Suggest a Relational Model. (All Claims)
4. The Combination of Rohall in View of Schiavone and Gomes Does Not Render Obvious Claims 9 or 27. (Claims 9 & 27)

Rohall/Schiavone/Gomes Combination Does Not Invalidate the Claims

Rohall/Schiavone/Gomes Fails - Gomes Does Not Address The Internal Structure Of Email Threads

- Gomes is for data management.
 - Deduplicates.
 - Preserves data based on rules.
 - However, does not apply rules at the *submessage* level.
- Gomes does not apply different processing rules to individual components within a message.
 - Gomes does not solve the failing in the Rohall/Schiavone combination:
 - does not disclose applying rules from a compliance policy at the *submessage* level.
 - does not disclose addressing different rules to different *submessages*.

Resp. (Paper 14), at 54-64; Sur-Reply (Paper 21), at 24-25

Gomes Fails to Disclose Applying *Rules* At the *Submessage* Level

164. As discussed above, however, Gomes does not address “*submessages*” at all. *Supra* ¶ 77. For example, Gomes does not address the internal structure of email threads, such as original messages, replies, and forwards. *See generally* EX1016. As a result, Gomes also does not discuss applying different processing rules to individual components within a message. Therefore, Gomes does not disclose rules “*describing which population structure entities can view which sent submessages.*” The rules in Gomes are not applied at the submessage level.

Resp. (Paper 14), at 54-64; Sur-
Reply (Paper 21), at 24-25

Rohall/Schiavone/Gomes Does Not Make Obvious Claim 9

- Claim requires application of rules at the “submessage” level, including “search” rules.
 - Gomes does not address the “submessage” level.
- Petitioner’s expert seems to be assuming “email messages” is the same as “sent submessages.” - Not true.
- ‘911 Patent makes this clear:
 - “The exemplary message 200 of FIG. 2 contains one current submessage 210 and two history submessages 212, 214 representing previously sent **submessages within the message** 200.” EX1001, 5:27-30.

Resp. (Paper 14), at 54-64; Sur-
Reply (Paper 21), at 24-25

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Claim 27

- Petitioner relies solely on the Rohall/Schiavone/Gomes combination for its argument for invalidity of claim 27:

Claim 27	Rohall/Schiavone/Gomes
Apply rules at the submessage level	
Storing each of submessage exactly once	
First sent submessage is not duplicated within the database	

Gomes Does Not Disclose Deduplication At the *Submessage* Level

173. Importantly, when the de-duplication process described in Gomes is applied to e-mail strings, the process will **not** result in de-duplication of “*submessages*”; it will only result in de-duplication of the entire string. This is because Gomes de-duplicates using hashed values.

Rohall-Schiavone Combination

Petitioner's Proposed Combination Would Exacerbate Storage Concerns

- The '911 Patent seeks to **reduce** storage needs. EX1001,1:44-45; EX2005, ¶95.
 - The '911 Patent solves this problem in part by storing each submessage only once. EX1001, Claim 27; *see also* EX2005, ¶95.
- Rohall, however, exacerbates this problem by creating shadow documents, which **add data** to the system, requiring **additional** storage. EX1005, [0013]; *see also* EX2005, ¶95.
- This is another reason a PHOSITA would not make Petitioner's proposed combination.
- Petitioner's attorneys argue, without any support from an expert, that Rohall would **not** "exacerbate the 911 Patent's identified storage concerns." Reply,19-20.
 - But regardless of whether Rohall's shadow documents are stored as individual documents or in a single document, they need to be stored, resulting in the system having **more** data to store. EX1005,[0013].

Resp. (Paper 14), at 45-47; Sur-Reply
(Paper 21), at 18-19

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Rohall and the '911 Patent Do Not Address the Same Issues

- Petitioner asserts that Rohall and the '911 Patent address “the same...issues” (Reply,18). Not true.
 - Petitioner incorrectly asserts that **both** references:
 - address “los[ing] important items” (Reply,18).
 - But the '911 Patent does not address that issue; the '911 Patent explains that the problem is actually that items exist **too many** times. EX1001,1:40-55.
 - address being “overwhelmed by the volume” of email (Reply,18).
 - Rohall does state that people are frustrated by the volume of email, but nothing in Rohall addresses that problem; Rohall **increases** storage needs. *Supra*,21.
 - “encounter difficulty managing message threads” (Reply,18).
 - But Rohall does not encounter that issue, because there are no “threads” in Rohall: Rohall’s problem is the **absence** of threads.
 - “encounter difficulty ... when replies and forwards cause messages to become disconnected” (Reply,18).
 - But the '911 Patent does **not** encounter that problem; in the '911 Patent, replies and forwards cause earlier messages in the thread to be replicated, such that messages in a thread are **always connected**.
 - directed to “threads” and have the same “messaging structure” (Reply,18).
 - To the contrary, the “messaging structures” are completely different: Rohall lacks threads, so it constructs them; the '911 Patent has too many replicating parts of threads, so it deconstructs them.

Sur-Reply (Paper 21), at 22-23