

Summary of verbatim (or nearly verbatim) matches between the 00542 petition to the Houh Declaration Ex.1003

	‘542 Petition	Houh Decl. (Ex. 1003)
1	System 10 “provides at least one content management site accessible to a system user” including “M-channels” which “allow unsophisticated users to easily and efficiently author message data or other types of information content to be made accessible via a collaborative workspace, a data mailbox, a collaborative community, or other type of mobile site.” (EX-1001, 5:27-29, 8:30-36.) Such mobile sites may be associated with “a group comprising multiple members having a common interest” (EX-1001, 6:39-41), “an event” (EX-1001, 6:60-61), “a game,” (EX-1001, 7:42-43), or “a user of IM, SMS, MMS, email or other type of messaging service” (EX-1001, 7:54-56), among other associations. (EX-1001, 6:39-8:25.) 542 Petition, pp. 3-4	The patent discloses that the system “provides at least one content management site accessible to a system user” including “M-channels” which “allow unsophisticated users to easily and efficiently author message data or other types of information content to be made accessible via a collaborative workspace, a data mailbox, a collaborative community, or other type of mobile site.” (EX-1001, 5:27-28, 8:30-35.) Such mobile sites may be associated with “a group comprising multiple members having a common interest,” (EX-1001, 6:39-41), “an event,” (EX-1001, 6:60-65), “a game,” (EX-1001, 7:42-43), or “a user of IM, SMS, MMS, email or other type of messaging service,” (EX-1001, 7:54-56), among other associations. (EX-1001, 6:39-8:25.) Ex. 1003, ¶ 28
2	A person of ordinary skill in the art (“POSITA”) would have had a bachelor’s degree in electrical engineering, computer science, or similar field, with two years of experience in developing and implementing network-based computer systems that interact with mobile devices, such as systems for storing and retrieving information over the Internet or communicating using the Web using wireless mobile devices. Additional education might	In my opinion, a POSITA would have a bachelor’s degree in electrical engineering, computer science, or similar field, with two years of experience in developing and implementing network-based computer systems that interact with mobile devices, such as systems for storing and retrieving information over the Internet or communicating using the Web using wireless mobile devices. A person could also have qualified as a POSITA with some

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	compensate for less experience and vice versa.² (EX-1003, ¶¶31-32.) 542 Petition, p. 4	combination of (1) more formal education (such as a master’s of science degree) and less technical experience, or (2) less formal education and more technical or professional experience.¹ Ex. 1003, ¶ 32
3	A POSITA would have been motivated to combine Forsyth’s teachings regarding use of group objects and additional features and functions to enhance the Forums service taught by Randall which uses Randall’s network infrastructure with extensible database. (EX-1003, ¶¶69-75.) 542 Petition, p. 11	A POSITA would have been motivated to combine Forsyth’s teachings regarding the use of group objects and additional features and functions to enhance the Forums service taught by Randall. Ex. 1003, ¶ 69
4	Randall and Forsyth are also reasonably pertinent to problems addressed by the ’348 patent, namely “overcom[ing] one or more of the drawbacks of” conventional techniques for content sharing for mobile devices. (See, e.g., EX-1001, 1:45-2:9; EX-1003, ¶70.) 542 Petition, p. 12	Randall and Forsyth are also reasonably pertinent to problems addressed by the ’348 patent, namely “overcom[ing] one or more of the drawbacks of” conventional techniques for content sharing for mobile devices. (See, e.g. EX-1001, 1:44-2:7.) Ex. 1003, ¶ 70
5	A POSITA would have been motivated to make the above combination because Forsyth explicitly motivates the combination. (EX-1003, ¶¶71-72.) Forsyth stresses the benefits of group objects noting that its “invention is founded on the insight of providing an object which defines solely the identities of members of a group.” (EX-1006, 2:24-27.) As such, “a group created in one application (e.g. for text	A POSITA would have been motivated to make the above combination because Forsyth explicitly motivates the combination. Forsyth stresses the benefits of group objects noting that its “invention is founded on the insight of providing an object which defines solely the identities of members of a group” and “as such, it is application (and hence also content) independent.” (Forsyth,

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	based instant messaging) can immediately be used in other applications (e.g. a diary/agenda application could use that same group as the recipient list for an invitation to a meeting).” (EX-1006, 2:27-37.) Forsyth further describes “strengths” of a Forums application utilizing group objects “over conventional communications,” as summarized in Table 1 (below). (EX-1006, 2:54-57.) 542 Petition, p. 12	2:24-27.) “This means that a group created in one application (e.g. for text based instant messaging) can immediately be used in other applications (e.g. a diary/agenda application could use that same group as the recipient list for an invitation to a meeting).” (Forsyth, 2:27-32.) “Similarly, data specifically created for one group and in one application can be re-used in a different application and the data viewed appropriately for that different application.” (Forsyth, 2:34-37.) Forsyth further describes the “strengths” of Forums application utilizing group objects “over conventional communications.” (See Forsyth, 2:54-57.) These relative strengths are illustrated in Forsyth’s Figure 1 (reproduced below). Ex. 1003, ¶ 71
6	Moreover, a POSITA, when considering Randall’s Forums service, would have been motivated to search for references describing Forums and its enhancements, particularly those published by or associated with Symbian and would have been led to Forsyth. (EX-1003, ¶73.) Finally, the combination is nothing more than the application of a known technique (Forsyth’s group objects, features and functions) to a known method/product (Randall’s Forums service implemented with extensible database infrastructure) which was ready for further improvement. (EX-1003, ¶74.)	Additionally, a POSITA when considering Randall’s Forums service, would have been motivated to search for other references directed to Forums and its enhancements. As I noted above, Forsyth was originally assigned to Symbian. A POSITA would have been motivated particularly to search for references associated with Symbian for implementation details and enhancements and would have been led to Forsyth. Finally, the combination is nothing more than the application of a known technique (Forsyth’s group objects,

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	A POSITA would have had a reasonable expectation of success in the combination and the results of the combination would have been predictable because both references are directed to the same service, Forums; are based on devices using the Symbian OS; and use features and functionality associated with Symbian. (EX-1003, ¶75.) The Symbian operating system was well-known and Symbian offered many technical developer resources prior to the earliest possible priority date of the '348 patent. (See, e.g., EX-1017; EX-1012, EX-1016, EX-1018.) 542 Petition, pp. 13-14	features and functions) to a known method/product (Randall's Forums service implemented with extensible database infrastructure) which was ready for further improvement. A POSITA would have had a reasonable expectation of success in the combination and the results of the combination would have been predictable because both references are directed to the same service, Forums, are based on devices using the Symbian OS and use features and functionality associated with Symbian. The Symbian operating system was well-known and Symbian offered many technical developer resources prior to the earliest possible priority date of the '348 patent. (See, e.g., EX-1017; Allin, 4-6, 229-31; Jipping, 11-14.) Ex. 1003, ¶¶ 73-75
7	And although Randall depicts multiple servers hosting individual Forums and hosting the extensible database, a POSITA would have been motivated to implement the functionalities for hosting a Forum and a database on a single server to achieve cost savings and to obtain efficiency of maintenance and updates. (EX-1003, ¶79.) 542 Petition, p. 16	And although Randall depicts multiple servers hosting individual Forums and hosting the extensible database, a POSITA would have been motivated to implement the functionalities for hosting a Forum and a database on a single server to achieve cost savings by minimizing amount of network equipment and for efficiency of maintenance and updates. Ex. 1003, ¶ 79
8	Although not explicit, a POSITA would have understood from these disclosures the server-side Forums	Although not explicit, a POSITA would have understood from these disclosures that the server-side Forums

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	program is an “<i>executable code of one or more software programs</i>” which “<i>when executed</i>” by a processor cause the server to perform the recited actions of claim 17. (EX-1003, ¶¶79-80.) 542 Petition, pp. 16-17	program is “<i>executable code of one or more software programs</i>” which “<i>when executed by a processing element</i>” to perform the steps set forth in limitations [17A]-[17C]. Ex. 1003, ¶ 79
9	Should PO contend “<i>memory</i>” of the “<i>processing element</i>” must store instructions executed by the processor, such memory would have been obvious, if not inherent in Randall and Forsyth which both teach software running on the server. Because the software/applications executing on a processor are stored in memory and also access information stored in memory, a POSITA would have understood Randall and Forsyth further disclose or suggest the “<i>processor [is] coupled to a memory.</i>” (EX-1003, ¶89; §V.B.1.c.) 542 Petition, pp. 18-19	Should PO contend “<i>memory</i>” of the “<i>processing element</i>” must store instructions executed by the processor, such memory would have been obvious, if not inherent in Randall and Forsyth which both teach software running on the server. Because the software/applications executing on a processor are stored in memory and also access information stored in memory, a POSITA would have understood Randall and Forsyth further disclose or suggest the “<i>processor [is] coupled to a memory.</i>” Ex. 1003, ¶ 89
10	Although Randall’s Figure 4 only depicts a single wireless information device, a POSITA would have understood that multiple wireless information devices would be present in the Forums network, because Randall and Forsyth both discuss groups having multiple members and because, for example, Forsyth teaches that content is “sent and received between several wireless information devices” in a group. (EX-1006, 1:64-2:1; <i>see</i> EX-1006, 5:35-7:13 (Group Based Text Messaging Scenario 1),	Although Figure 4 only depicts a single wireless information device, a POSITA would have understood that multiple wireless information devices would be present in the Forums network, because Randall and Forsyth both discuss groups having multiple members and because, for example, Forsyth teaches that content is “sent and received between several wireless information devices” in a group. (Forsyth, 1:64-2:1; <i>see also</i> Forsyth, 5:35-7:13 (Group Based Text Messaging Scenario 1), 7:18-57

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	7:18-57 (Discussion of Photos Scenario 2), 7:58-9:4 (Social Scheduling Scenario 3), 9:5-35 (Digital Memento from a User’s Birthday Scenario 4).) Accordingly, the combination discloses “ <i>a plurality of mobile devices.</i> ” (EX-1003, ¶100.) 542 Petition, p. 22	(Discussion of Photos Scenario 2), 7:58-9:4 (Social Scheduling Scenario 3), 9:5-35 (Digital Memento from a User’s Birthday Scenario 4).) Accordingly, the combination discloses “ <i>a plurality of mobile devices.</i> ” Ex. 1003, ¶ 100
11	Randall and Forsyth each discloses capturing multiple types of data at the mobile device. (EX-1003, ¶¶109-16.) For example, Forsyth discloses that in Forums “ personal content such as photographs, opinions, music playlists, music tracks etc.” is shared “amongst a pre-defined group.” (EX-1006, 4:9-11; Figure 13.) 542 Petition, p. 24	Randall and Forsyth each discloses capturing multiple types of data at the mobile device. For example, Forsyth discloses that in Forums “ personal content such as photographs, opinions, music playlists, music tracks etc.” is shared “amongst a pre-defined group.” (Forsyth, 4:9-11.) Ex. 1003, ¶ 109
12	For example, Randall and Forsyth each discloses capturing a photo at a wireless device. (EX-1003, ¶¶110-11.) Randall describes a function called “Take a picture” which “takes a digital picture which [a user can] send to [their friends ... and chat about it.” (EX-1005, 80.) Such functionality involves photo capture, upload, and storage, and is supported by “a special type of mobile phone, with a photographic lens.” (EX-1005, 80.) 542 Petition, p. 24	Randall and Forsyth each discloses capturing a photo at a wireless information device. Randall describes a function called “Take a picture” which involves photo capture, upload, and storage. (Randall, 80.) This function is supported by “a special type of mobile phone, with a photographic lens.” (Randall, 80.) Ex. 1003, 110¶
13	Thus, the Randall-Forsyth combination discloses capturing a photo at the mobile device either via an integrated camera or via a camera interfacing with the mobile device—	Thus, the combination of Randall and Forsyth discloses capturing a photo at the mobile device either via an integrated camera or via a camera

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	“<i>device-captured data.</i>” (EX-1003, ¶111.) 542 Petition, p. 24	interfacing with the mobile device— “<i>device-captured data.</i>” Ex. 1003, ¶ 111
14	Forsyth discloses capturing a music file at the wireless information device. (EX-1003, ¶¶114-15.) Forsyth teaches the central server “act[s] as a store for resources which group-members may wish to discuss and share (e.g. personal information, personal photographs, music, web sites etc).” (EX-1006, 3:31-34; <i>see also</i>, Forsyth, 4:9-11 (“The group object could also be used to share, amongst a pre-defined group, personal content such as music tracks etc.”).) Forsyth further describes an exemplary Forum where “[p]eople post MP3s of the kind of music played at each club.” (EX-1006, 9:21-22.) While not explicit, a POSITA would have understood the shared track/MP3 (music file) is captured in some manner on the user’s device, either by recording or via data transfer from another device, so that it can be uploaded to the server. (EX-1003, ¶114.) 542 Petition, pp. 26-27	Forsyth discloses capturing a music file at the wireless information device. Forsyth teaches the central server “act[s] as a store for resources which group-members may wish to discuss and share (e.g. personal information, personal photographs, music, web sites etc).” (Forsyth, 3:31-34; <i>see also</i>, Forsyth, 4:9-11 (“The group object could also be used to share, amongst a pre-defined group, personal content such as photographs, opinions, music playlists, music tracks etc.”).) Forsyth describes a “Radio Forums” example in which “users submit tracks to a communally-built-up playlist” which is achieved “by creating a link between the user’s store of digital music and the playlist stack.” (Forsyth, 11:41-47.) Forsyth further describes an exemplary Forum (Scenario 4) where “[p]eople post MP3s of the kind of music played at each club.” (Forsyth, 9:21-22.) While not explicit, a POSITA would have understood the shared track/MP3 (music file) is captured in some manner on the user’s device, either by recording or via data transfer from another device, so that it can be uploaded to the server. Ex. 1003, ¶ 114
15	b. “Receive First” and “Second” Device-Captured Data	ii. “Receive First” and “Second” Device-Captured Data

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	Forums is designed for interactive communication/discussion within a Forum. Specifically, Forums is a “group communication method for a wireless information device that enables communications to be sent and received between several wireless information devices operated by end-use[r]s that form a group of end users” (i.e., a Forum). (EX-1006, 1:64-2:1.) Each of Forsyth’s Scenarios illustrates that a mobile device shares data (text messages, photos, graphics, music files, etc.) with other Forum members within a Forum. (EX-1006, 5:35-7:13 (Scenario 1), 7:18-57 (Scenario 2), 7:58-9:4 (Scenario 3), 9:5-35 (Scenario 4).) Thus, a first mobile device sends its content for inclusion in the Forum discussion, including “first captured data” and a second mobile device also sends its content for inclusion in the Forum discussion including its “second captured data.” (EX-1003, ¶117.) The server, illustrated in Randall’s Figure 4 below, “handles contacting each group member, storing messages, allowing message to be read, sending, receiving and distributing messages.” (EX-1006, 3:28-31; EX-1005, 57:4 (describing “server side software”), 38:24 (describing “server side message handling applications”).) That is, the wireless devices (clients) send their messages containing content data to the server for storage and distribution to other Forum members	Symbian Forums, described by Randall and Forsyth, is designed for interactive communication/discussion within a Forum. Specifically, Forums is a “group communication method for a wireless information device that enables communications to be sent and received between several wireless information devices operated by end-use[r]s that form a group of end users” (i.e., a Forum). (Forsyth, 1:64-2:1.) Each of the Scenarios presented by Forsyth illustrates that a mobile device shares data (text messages, photos, graphics, music files, etc.) with other Forum members within a Forum. Thus, a first mobile device sends its content for inclusion in the Forum discussion, including “first captured data,” and a second mobile device also sends its content for inclusion in the Forum discussion, including its “second captured data.” (Forsyth, 5:35-7:13 (Group Based Text Messaging Scenario 1), 7:18-57 (Discussion of Photos Scenario 2), 7:58-9:4 (Social Scheduling Scenario 3), 9:5-35 (Digital Memento from a User’s Birthday Scenario 4).) As I discussed above, the server, illustrated in Randall’s Figure 4 below, “handles contacting each group member, storing messages, allowing message to be read, sending, receiving and distributing messages.” (Forsyth, 3:28-31; Randall, 57:4 (describing “server side software”), 38:24 (describing “server side message

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	and these messages are received over the wireless network via the network interface. [image omitted] Symbian Forums—Randall, Figure 4 Forsyth’s “group based text messaging” Scenario 1 describes an example of creating a Forum (channel) and exchanging messages among Forum members. When creating a Forum (e.g., Naked Chef), the mobile device, via the New Forum user interface displayed on the mobile device screen, captures the initial message entered by the user (including text data content) and sends this text content “to the message server” as part of a “message/communication object.” (EX-1006, 6:1-8, Figure 4 (below).) The wireless device associated with the Forum creator is “<i>a first one of the mobile devices</i>” and the text captured through the New Forum user interface is “<i>first device-captured data</i>” which is received at the Forums server “<i>from [the] first one of the mobile devices via the network interface.</i>” (EX-1003, ¶118.) Thus, the server “<i>receive[s] first device captured data from</i>” first mobile devices over the network and “<i>via the network interface</i>” [1C]/[13A]/[17A]. (<i>Id.</i>) [image omitted] Forums—Forsyth, Figure 4	handling applications”).) That is, the wireless devices (clients) send their messages containing content data to the server for storage and distribution to other Forum members, and these messages are received over the wireless network via the network interface. [image omitted] Symbian Forums—Randall, Figure 4 Forsyth and Randall describe numerous examples of Forum members posting data/content to a Forum via the Forum Server. For example, in group based messaging Scenario 1, when creating a Forum (e.g., Naked Chef), the mobile device, via the New Forum user interface displayed on the mobile device screen, captures the initial message entered by the user (including text data content) and sends this text content “to the message server” as part of a “message/communication object.” (Forsyth, 6:1-8, Figure 4 (below).) The wireless device associated with the Forum creator is “<i>a first one of the mobile devices</i>” and the text captured through the New Forum user interface is “<i>first device-captured data</i>” which is received at the Forums server “<i>from [the] first one of the mobile devices via the network interface.</i>” Thus, the server “<i>receive[s] first device captured data from</i>” [17D] a first mobile device

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	The server stores the message/communication object, which acts as the store for all communications within the Forum. (EX-1006, 6:9-10, 4:18-24 (message can “be treated as a single communication object” and “[a]ll linked (e.g. threaded) communications, such as replies and comments, then become part of the same communication object and, like any object are treated as a discrete entity”).) The server then “forwards a copy of the message to each of the people on the address list, along with an abstracted version of the address list.” (EX-1006, 6:10-14.) Subsequent responses to the initial message “are of the form that the new message is sent to the server, when then forwards on the increment to all the people on the current (server-maintained) address list.” (EX-1006, 6:18-22.) For example, when “a user clicks on ‘Forum reply,’” via the user interface shown in Figure 9 (below), “then a new message is posted to the Forum.” (EX-1006, 6:54-55.) The mobile device sending the response to the server over the wireless network is “<i>a second one of the mobile devices</i>” and the data contained in the response is the “<i>second device-captured data.</i>” (<i>Id.</i>) Thus, the server “<i>receive[s] second device captured data from</i>” a second mobile device over the	over the network and “<i>via the network interface</i>” [1C]/[13A]/[17A]. (<i>Id.</i>) [image omitted] Symbian Forums—Forsyth, Figure 4 The server stores the message/communication object, which acts as the store for all communications within the Forum. (Forsyth, 6:9-10, 4:18-24 (message can “be treated as a single communication object” and “[a]ll linked (e.g. threaded) communications, such as replies and comments, then become part of the same communication object and, like any object are treated as a discrete entity”).) The server then “forwards a copy of the message to each of the people on the address list, along with an abstracted version of the address list.” (Forsyth, 6:10-14.) Subsequent responses to the initial message “are of the form that the new message is sent to the server, when then forwards on the increment to all the people on the current (server-maintained) address list.” (Forsyth, 6:18-22.) For example, when “a user clicks on ‘Forum reply,’” via the user interface shown in Figure 9 (below), “then a new message is posted to the Forum.” (Forsyth, 6:54-55.) The mobile device sending the response to the server over the wireless network is “<i>a second one of the mobile devices</i>”

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	network “<i>via the network interface</i>” [1D]/[13B]/[17B]. (EX-1003, ¶120.) 542 Petition, pp. 27-31	and the data contained in the response is the “<i>second device-captured data.</i>” Thus, the server “<i>receive[s] second device-captured data from</i>” a second mobile device over the network “<i>via the network interface</i>” [1D]/[13B]/[17B]. (<i>Id.</i>) Ex. 1003, ¶¶ 117-120
16	Within Forums, a user has the ability to create an individual Forum opened to members of a specified group (Private Forum) or to all (Public Forum). (EX-1006, Appendix 1, 13:60-18:18; EX-1005, 24:13-17.) The individual Forum scenarios presented in Forsyth, “group based text messaging” (EX-1006, 5:35-7:13), “Discussion of Photos” (EX-1006, 7:18-57), “Social Scheduling” (EX-1006, 7:58-9:4), “Digital Memento from a User’s Birthday” (EX-1006, 9:5-35), as well as the other scenarios discussed, provide examples of how a Forum permits communication and information sharing among its members. Each individual Forum is a “<i>channel</i>” that is “<i>accessible to first and second users of the respective first and second mobile devices</i>” through information (e.g., content) sharing. (EX-1003, ¶¶129-30.) 542 Petition, pp. 33-34	Within the Forums application, a user has the ability to create an individual Forum open to members of a specified group (a Private Forum) or to the public (a Public Forum). (Forsyth, Appendix 1, 13:60-18:18; Randall, 24:13-17.) Forums also provide the ability for the server to create a Forum based on criteria such as location of users. (<i>See</i> Forsyth, 13:29-52.) The individual Forum scenarios presented in Forsyth, “group based text messaging” (Forsyth, 5:35-7:13), “Discussion of Photos” (Forsyth, 7:18-57), “Social Scheduling” (Forsyth, 7:58-9:4), “Digital Memento from a User’s Birthday” (Forsyth, 9:5-35), as well as the other scenarios discussed, provide examples of how a Forum permits communication and information sharing among its members. Each individual Forum is a “<i>channel</i>” that is “<i>accessible to first and second users of the respective first and second mobile devices</i>” through information (e.g., content) sharing. Ex. 1003, ¶¶ 129-130

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17	Thus, a Forum created in and available Forums (computer program) provides a means to share content (information) with identified members of the Forum—i.e., it is a mechanism through which content/information is transferred to Forum members. (EX-1003, ¶¶131.) By agreeing to participate in a Forum, an individual user is essentially “tuning into” the Forum to receive content published to the Forum by other members which is provided to the user’s device either by a push mechanism or by a pull mechanism. (See EX-1006, 6:15-26.) Therefore, an individual Forum is “a medium for transferring information accessible to more than one user” and is therefore an “<i>shared information channel</i>.” (EX-1003, ¶131.) Randall and Forsyth both disclose, or suggests, to a POSITA that an individual Forum is also a “web-based shared information channel” under the agreed upon Meta-MDT-IPR construction (“a medium for transferring information accessible to more than one user via the web”). (EX-1003, ¶132-38.) The Forums infrastructure, illustrated in Randall’s Figure 4, “acts in effect like a fully personalized web portal, yet with the information links not consolidated in one general area, but instead distributed to the domains in which they are most likely to be relevant to a user.” (EX-1005, 13:22-24.) Forums establishes “web portals” (websites)	Thus, a Forum created in and available through Symbian Forums provides a means to share content (information) with identified members of the Forum—i.e., it is mechanism through which content/information is transferred to Forum members. It allows creation of individual topical-based Forums through which users can share information (such as the “Naked Chef” Forum described above). By agreeing to participate in a Forum, an individual user is essentially “tuning into” the Forum to receive content published to the Forum by other members which is provided to the user’s device either by a push mechanism or by a pull mechanism. (See Forsyth, 6:15-26.) Therefore, an individual Forum is “a medium for transferring information accessible to more than one user” and is therefore an “<i>shared information channel</i>.” Randall and Forsyth both disclose, or at a minimum suggest, to a POSITA that an individual Forum is also a “web-based shared information channel” under the agreed upon Meta-MDT-IPR construction (“a medium for transferring information accessible to more than one user via the web”). As described by Randall, the Symbian Forums infrastructure, illustrated in Randall’s Figure 4, “acts in effect like a fully personalized web portal, yet with the information links not consolidated in one general area, but instead distributed to the domains in

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	for users of wireless devices through the use of “standard data transports such as WAP or http for data access” to the server (EX-1005, 45:14-15) and through the use of Randall’s ADS naming scheme which uses web server addresses. Use of WAP teaches or at least suggests Forums user interface pages are provided from the server over “the web” (e.g., via a website download). WAP, as discussed in §VI.B.3.b, is “based on the WWW communication protocols” and “WWW content formats.” (EX-1013, 13; EX-1003, ¶¶55-59.) The WAP proxy “allows content and applications to be hosted on standard WWW servers.” (EX-1013, 14.) For example, when a user of a WAP-enabled terminal enters a URL, the WAP-enabled terminal transmits a wireless Internet service request to the WAP gateway server. (See, e.g., EX-1027, 1:66-2:4.) The WAP gateway may respond to the request if hosting the request web page or may convert the request into an HTTP request for a server on the Internet. (See, e.g., EX-1027, 2:5-10.) The Internet web server responds and the WAP gateway converts the HTTP response into a WAP response for transmission to the WAP-enabled terminal. (See, e.g., EX-1027, 2:15-25.) That is, Forums hosted on or accessible via WAP-enabled server are “web-based.” (EX-1003, ¶133.)	which they are most likely to be relevant to a user.” (Randall, 13:22-24.) Forums establishes “web portals” (websites) for users of wireless devices through the use of “standard data transports such as WAP or http for data access” to the server (Randall, 45:14-15) and through the use of Randall’s ADS naming scheme which uses web server addresses. Use of WAP teaches or at least suggests Forums user interface pages are provided, e.g., via a website downloaded from the server. WAP, which I discussed in §IV.A.1.c, is “based on the WWW communication protocols” and “WWW content formats.” (WAP Architecture, 13.) WAP “enables the supplying of advanced Internet services into digital mobile stations of wireless communication networks.” (Salmi, 6:63-65.) The WAP proxy “allows content and applications to be hosted on standard WWW servers.” (WAP Architecture, 14.) For example, when a user of a WAP-enabled terminal enters a URL, the WAP-enabled terminal transmits a wireless Internet service request to the WAP gateway server. (See, e.g., Park, 1:66-2:4.) The WAP gateway may respond to the request if hosting the request web page or may convert the request into an HTTP request for a server on the Internet. (See, e.g., Park, 2:5-10.) The Internet web server responds and the WAP gateway converts the HTTP

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	Randall’s naming convention further underscores that Forums are designed to be mobile websites accessible “via the web.” (EX-1003, ¶¶134-35.) Randall teaches that a “wireless information device (as well as web browsers) can access an entity’s database by sending to the server an unchanging pointer or key (an ‘ADS Number’) which is unique to that entity.” (EX-1005, 9:13-15.) Randall’s ADS number is “an address on a web server—for example www.indirect.com/Alice.” (EX-1005, 64:25-26.) “This address is in effect a pointer to entity specific data held on the web server, in this case, Alice’s information.” (EX-1005, 64:27-28.) 542 Petition, pp. 34-36	response into a WAP response for transmission to the WAP-enabled terminal. (<i>See, e.g.</i>, Park, 2:15-25.) That is, Forums hosted or accessible on WAP-enabled servers are “web-based.” Randall’s naming convention further underscores that Forums are designed to be mobile websites accessible “via the web.” Randall teaches that a “wireless information device (as well as web browsers) can access an entity’s database by sending to the server an unchanging pointer or key (an ‘ADS Number’) which is unique to that entity.” (Randall, 9:13-15.) Randall’s “ADS numbers are typically constructed using text strings and can be though[t] of as defining a namespace.” (Randall, 9:17-18.) The ADS number “in one implementation [is] an address on a web server—for example www.indirect.com/Alice.” (Randall, 64:25-26.) “This address is in effect a pointer to entity specific data held on the web server, in this case, Alice’s information.” (Randall, 64:27-28.) Ex. 1003, ¶¶ 131-134
18	Indeed, Forsyth confirms the Forums are “<i>web-based</i>”, explaining “Forums facilitates the situation where, to a degree, the other members of a group are ‘always there’ for a user” including “ensuring other interfaces—e.g., via the Web and PCs, and possibly via	Forsyth confirms that Forums user interfaces are provided by the server via, e.g., webpages, explaining “Forums facilitates the situation where, to a degree, the other members of a group are ‘always there’ for a user” including “ensuring other interfaces—e.g., via the Web and

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	normal phones—are available.” (EX-1006, 11:23-31; EX-1003, ¶136.) 542 Petition, p. 36	PCs, and possibly via normal phones—are available.” (Forsyth, 11:23-31.) Ex. 1003, ¶ 136
19	For example, with the web-based Forums architecture, a user connected to the Internet enters the ADS number associated with the Forum, Naked Chef (e.g., www.forums.com/NakedChef) and connects to the server hosting that Forum via HTTP; the server processes the request and responds with the webpage (blue line). (EX-1003, ¶137.) A mobile device user similarly enters (directly or via a local application) the Forum’s ADS number (e.g., www.forums.com/NakedChef) and connects to the server over GSM-WAP (purple). If the WAP server hosts the Forum (as shown below), it processes the request and responds with a webpage. If not, the WAP server contacts the hosting server via HTTP to retrieve the webpage which is returned to the mobile device via GSM-WAP. (<i>Id.</i>). [image omitted] Symbian Forums—Randall, Figure 4 Thus, the Randall-Forsyth combination discloses a “<i>web-based shared information channel</i>” that is “<i>controllably accessible to first and second users of the respective first and second mobile devices</i>” via the Forums	A user connected to the Internet enters the ADS number associated with the Forum, Naked Chef, which is www.forums.com/NakedChef and connects to the server hosting that Forum via HTTP; the server processes the request and responds using HTTP over the Internet (blue line). A mobile device user similarly enters (directly or via a local Forums application) the ADS number (www.forums.com/NakedChef) of the Forum and connects to the WAP server over the GSM network (purple). If the WAP server hosts the Forum (as shown below), it processes the request and responds with a webpage. If a different web server hosts the Forum, the WAP server contacts that server via HTTP to retrieve the webpage which is then forwarded to the mobile device to generate the user interface display, as I discussed above. [image omitted] Symbian Forums—Randall, Figure 4 Thus, the combination of Randall and Forsyth discloses a “<i>web-based shared information channel</i>” that is “<i>controllably accessible to first and second users of the respective first and second mobile devices</i>” via the Forums

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	service running on the “<i>first and second mobile devices.</i>” (EX-1003, ¶¶129-38.) 542 Petition, pp. 37-38	service running on the “<i>first and second mobile devices.</i>” Ex. 1003, ¶¶ 137-138
20	Forums achieves integration of messages from multiple Forum members within a Forum through use of a single communication object associated with a Forum. (EX-1006, 4:19-20, 4:20-26, 7:6-8.) Forsyth discloses that when a Forum is created, the original message posted to the Forum is “treated as a single ‘communication object.’” (EX-1006, 4:19-20.) “All linked (e.g. threaded) communications, such as replies and comments, then become part of the same communication object and, like any object are treated as a discrete entity.” (EX-1006, 4:20-24.) “Hence, the entire communication object can be sent to a new person, or be archived etc.” (EX-1006, 4:25-26, 7:6-8 (“The contents of a Forum can be forwarded-on, for example, to contacts who are not participating in the Forum, or to the Jotter application.”).) For example, in group based text messaging Scenario 1, a communication object is created for the Forum “Naked Chef” which holds the initial message and all subsequent messages in the Forum. (EX-1003, ¶¶118-19.) When new response messages are sent to the server, the server stores these messages in the communication object thereby	Forums achieves integration of messages from multiple Forum members within a Forum through use of a single communication object associated with a Forum. (Forsyth, 4:19-20, 4:20-26, 7:6-8.) Forsyth discloses that when a Forum is created, the original message posted to the Forum is “treated as a single ‘communication object.’” (Forsyth, 4:19-20.) “All linked (e.g. threaded) communications, such as replies and comments, then become part of the same communication object and, like any object are treated as a discrete entity.” (Forsyth, 4:20-24.) “Hence, the entire communication object can be sent to a new person, or be archived etc.” (Forsyth, 4:25-26, 7:6-8 (“The contents of a Forum can be forwarded-on, for example, to contacts who are not participating in the Forum, or to the Jotter application.”).) That is, in Forums, all messages are integrated by the server into this single communication object. Forsyth describes an exemplary use of “communication objects” in the “group based text messaging” Scenario (Scenario 1). In this Scenario, a communication object is created when the Forum creator sends the initial message. (Forsyth, 6:9-10.)

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	“maintaining [the] m[e]ssage thread” for the Forum. (See EX-1006, 3:19-22, 3:28-30.) That is, the server “integrates” the received messages into the Forum object. The integration of content (device-captured data) into a Forum (“web-based information channel”) that is “controllably accessible to first and second users of the respective first and second mobile devices” is further illustrated by this exemplary scenario. (EX-1003, ¶¶141-42.) As shown in Forsyth’s Figure 6 (below), the user interface of the Forums application displays a listing of established Forums of which the user is a member (e.g., “Pub on [F]riday”, “Naked chef”, “Super Eagles!”, “Wanna wager?”). (EX-1006, 6:28-35.) This screen is customized to list the Forums to which the user is a member and therefore varies from user to user. The view shown in Figure 6 “distinguishes Forums with unread (new) messages from those with read (old) ones.” (See EX-1006, 6:29-32.) That is, the messages associated with a specific Forum are accessible “via respective personalized content applications of the first and second mobile devices.” (EX-1003, ¶¶139-43.) [image omitted] Symbian Forums—Forsyth, Figure 6	When new response messages are sent to the server, the server stores these messages in the message/communication object thereby “maintaining [the] m[e]ssage thread” for the Forum. (Forsyth, 3:19-22, 3:28-30.) The integration of content (device-captured data) into a Forum (“web-based information channel”) that is “controllably accessible to first and second users of the respective first and second mobile devices” is further illustrated by this exemplary scenario. As shown in Forsyth’s Figure 6 (below), the user interface of the Forums application displays a listing of established Forums of which the user is a member (e.g., “Pub on [F]riday,” “Naked chef,” “Super Eagles!,” “Wanna wager?”). (See Forsyth, 6:28-35.) This screen is customized to list the Forums to which the user is a member and therefore varies from user to user. That is, the messages associated with a specific Forum are accessible “via respective personalized content applications of the first and second mobile devices.” The view shown in Figure 6 “distinguishes Forums with unread (new) messages from those with read (old) ones.” (See Forsyth, 6:29-32.) [image omitted] Symbian Forums—Forsyth, Figure 6

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	When the user selects a Forum from the list, the display associated with that Forum is shown, as illustrated in Forsyth’s Figure 7 below. Such a display is available to all Forum members including the first and second user. That is, the Forum (“Naked Chef”) is “<i>controllably accessible</i>” to users of the Forums server (e.g., “<i>to first and second users of the respective first and second mobile devices</i>”). Through this user interface, “the user is shown the messages posted to that Forum.” (EX-1006, 6:38-40.) “Messages appear in date order, i.e. newest messages appear at the bottom.” (EX-1006, 6:40-42.) As shown, captured data from multiple users is presented on a single “<i>integrated</i>” display. (EX-1003, ¶142.) Thus, the “<i>first and second device capture data</i>” are integrated into the forum (“web-based shared information channel”). 542 Petition, pp. 39-42	When the user selects a Forum from the list, the display associated with that Forum is shown, as illustrated in Forsyth’s Figure 7 below. Such a display is available to all Forum members including the first and second user. That is, the Forum (“Naked Chef”) is “<i>controllably accessible</i>” to users of the Forums server (e.g., “<i>to first and second users of the respective first and second mobile devices</i>”). Through this user interface, “the user is shown the messages posted to that Forum.” (Forsyth, 6:38-40.) “Messages appear in date order, i.e. newest messages appear at the bottom.” (Forsyth, 6:40-42.) As shown, captured data from multiple users is presented on a single “<i>integrated</i>” display. Thus, the “<i>first and second device capture data</i>” are integrated into the Forum (“web-based shared information channel”). Ex. 1003, ¶¶ 139-142
21	The Forums infrastructure, illustrated below, includes “<i>a plurality of servers</i>”: “internet servers” hosting individual Private and Public Forums (as enhanced by Forsyth) and “internet servers” hosting extensible databases (as taught by Randall). (EX-1005, 7:16-19.) As shown, wireless devices access these servers/databases via the wireless network and non-mobile devices access these servers via Internet. (EX-1003, ¶144.) A POSITA would have been motivated to	The Symbian Forums infrastructure, illustrated below, includes “<i>a plurality of servers</i>”: “internet servers” hosting individual Private and Public Forums (as enhanced by Forsyth) and “internet servers” hosting extensible databases (as taught by Randall). (Randall, 7:16-19.) As shown, wireless devices access these servers/databases via the wireless network and non-mobile devices access these servers via Internet respectively. That is, this “<i>plurality of servers</i>” is “<i>configured to</i>

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	implement the functionality associated with providing Forums and the functionality of hosting a database on a single server to obtain, e.g., the benefits of more efficient maintenance as well as cost savings of reduced amount of network equipment. (<i>Id.</i>) Therefore, one of these plurality of servers, e.g., the server hosting the Private Forum and the user extensible database, is the apparatus described above in §V.B.1.a and one or more servers hosts other forums (e.g., Public Forum server). (<i>Id.</i>) [image omitted] Forums—Randall, Figure 4 542 Petition, pp. 42-44	<i>communicate over a network.”</i> As I noted in §IV.A.3, a POSITA would have been motivated, e.g., to implement the functionality associated with providing Forums and the functionality of hosting a database on a single server to obtain the benefits of more efficient maintenance and cost savings of reduced amount of network equipment. Therefore, one of these plurality of servers, e.g., hosting the Private Forums and the user extensible database, is the apparatus described above in §IV.B.2 in my analysis of claim 1. Other servers are also provided, e.g., to host other forums (e.g., the Public Forum server). [image omitted] Symbian Forums—Randall, Figure 4 Ex. 1003, ¶ 144
22	Randall and Forsyth also both disclose or suggest that the “<i>mobile device</i>” is a “<i>tablet computer</i>.” Both teach that a wireless information device includes a “communicator.” (EX-1005, 1:7-11; <i>see also</i>, EX-1006, 1:16-35.) A POSITA would have known one communicator designed by Symbian is based on the Quartz design which “is a pen-based tablet device with integrated telephony.” (EX-1003, ¶148; EX-1012, 4.) Randall suggests such a product design in the discussion of the “[w]rite-[o]n” function that I described above. (EX-1005, 79.)	Randall and Forsyth also both disclose or suggest that the “<i>mobile device</i>” is a “<i>tablet computer</i>.” Both teach that a wireless information device includes a “communicator.” (Randall, 1:7-11; <i>see also</i>, Forsyth, 1:16-35.) As I discussed in §IV.B.2.b, a POSITA would have known one communicator designed by Symbian is based on the Quartz design which “is a pen-based tablet device with integrated telephony.” (Allin, 4.) Randall suggests such a product design in the discussion of the “[w]rite-[o]n” function that I described above. (Randall, 79.)

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	542 Petition, p. 45	Ex. 1003, ¶ 149
23	As illustrated in Figure 4 below, Randall uses “existing transports” (communication means) for client-server communication such as “WAP to access the services on the server side” and “standard IP formats such as MIME, SMTP and HTTP” to “enable compatibility with Internet Messaging systems.” (EX-1005, 58:23-27, 45:14-15.) As discussed in §V.B.2, the server includes a “network interface” supporting one or more of these access protocols. (EX-1003, ¶154.) As stressed by Randall, “the Internet and its servers can be used by a mobile device to deliver enchanting services that far surpass the present PC-Internet model.” (EX-1005, 46:8-10.) As discussed in §V.B.4.b, because Randall teaches the servers hosting Forums are accessible via the WAP and/or http protocols, the servers are “web servers [] <i>accessible to the first and second mobile devices over the Internet via the network interface.</i>” (EX-1003, ¶154.) [image omitted] Symbian Forums—Randall, Figure 4 542 Petition, pp. 46-47	That is, as illustrated in Figure 4 below, Randall uses “existing transports” (communication means) for client-server communication such as “WAP to access the services on the server side” and “standard IP formats such as MIME, SMTP and HTTP” to “enable compatibility with Internet Messaging systems.” (Randall, 58:23-27, 45:14-15.) As discussed in §IV.B.2, the server includes a “network interface” supporting one or more of these access protocols. As stressed by Randall, “the Internet and its servers can be used by a mobile device to deliver enchanting services that far surpass the present PC-Internet model.” (Randall, 46:8-10.) As discussed in §IV.B.3.b.ii, because Randall teaches the servers hosting Forums are accessible via the web through WAP and/or http protocols, the servers are “web servers [] <i>accessible to the first and second mobile devices over the Internet via the network interface.</i>” [image omitted] Symbian Forums—Randall, Figure 4 Ex. 1003, ¶ 154
24	The Forums service (“<i>the personalized content application</i>”) uses a client/server model with a program component running on a wireless	The Forums service (“<i>the personalized content application</i>”) uses a client/server model with a program component running on a wireless

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	information device which communicates over the wireless network to a program component on the server. Through the Forums service running on a mobile device, an individual Forum (“<i>web-based shared information channel</i>”) allows a user “<i>to enter a message.</i>” (EX-1003, ¶¶156-59; <i>supra</i> §VI.B.3.a.) Forsyth’s group text message scenario illustrates the operation of the Forums service and an individual Forum. Within Forums, a user is presented with a user interface displaying a list of his/her Forums on a screen such as the screen shown in Forsyth’s Figure 6 (below). The user selects one of these individual Forums which causes the user to navigate to a user interface associated with the Forum (e.g., Forsyth Figure 8) where the user can enter and post content. (<i>See, e.g.,</i> EX-1006, 6:28-35.) [image omitted] Forums—Forsyth, Figure 6 The user interface displayed to the user provides the ability for a user to reply within the Forum by posting a Forums message with content. For example, through the Forum Reply user interface displayed in Figure 9 (below), a user can enter content and designate that content “for insertion” into the Forum by clicking on “reply.” (EX-1006, 6:54-55.) A new message is then “posted to the Forum” when the	information device which communicates over the wireless network to a program component on the server, as illustrated in Forsyth’s Figure 4. Through the Forums service running on a mobile device, an individual Forum (“<i>web-based shared information channel</i>”) allows a user “<i>to enter a message,</i>” as I discussed above in my analysis of [1C]/[13A]/[17A]. The exemplary group text message scenario of Forsyth illustrates the operation of the Forums service and an individual Forum. Within Forums, a user is presented with a user interface displaying a list of his/her Forums on a screen such as the screen shown in Forsyth’s Figure 6 (reproduced below). The user selects one of these individual Forums which causes the user to navigate to a user interface associated with the Forum (e.g., Forsyth Figure 8) where the user can enter and post content. (<i>See, e.g.,</i> Forsyth, 6:28-35.) [image omitted] Symbian Forums—Forsyth, Figure 6 The user interface displayed to the user provides the ability for a user to reply within the Forum by posting a Forums message with content. For example, through the Forum Reply user interface displayed in Figure 9 (below), a user can enter content and

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	mobile device sends the Forums message to the server. [image omitted] Symbian Forums—Forsyth, Figure 9 The user interface listing Forum communications and providing options to reply is displayed to each Forum member. Thus, the Randall-Forsyth combination discloses that the “<i>web-based shared information channel</i> [individual Forum; Naked Chef] <i>is configured to allow a given one of the first and second users</i> [e.g. Lucy] <i>to enter a message</i> [e.g., No way!] <i>via the personalized content application</i> [Forums service] <i>of its corresponding mobile device</i>” [8A]. (EX-1003, ¶156-59.) 542 Petition, pp. 48-50	designate that content “for insertion” into the Forum by clicking on “reply.” (Forsyth, 6:54-55.) A new message is then “posted to the Forum” when the mobile device sends the Forums message to the server. [image omitted] Symbian Forums—Forsyth, Figure 9 This user interface listing Forum communications and providing the user with the ability to respond is displayed to each Forum member. Thus, the combination of Randall and Forsyth discloses that the “<i>web-based shared information channel</i> [individual Forum; Naked Chef] <i>is configured to allow a given one of the first and second users</i> [e.g., Lucy] <i>to enter a message</i> [e.g., No way!] <i>via the personalized content application</i> [Forums service] <i>of its corresponding mobile device</i>” [8A]. Ex. 1003, ¶¶ 156-159
25	The response messages entered by a user through the user interface displayed by Forums on the mobile device “are of the form that the new message is sent to the server, which then forwards on the increment to all the people on the current (server-maintained) address list.” (EX-1006, 6:18-22.) For example, when “a user clicks on ‘Forum reply,’” via the user interface shown in Figure 9 (below), “then a new message is posted to the	The response messages entered by a user through the user interface display by Forum on the mobile device “are of the form that the new message is sent to the server, which then forwards on the increment to all the people on the current (server-maintained) address list.” (Forsyth, 6:18-22.) For example, when “a user clicks on ‘Forum reply,’” via the user interface shown in Figure 9 (below), “then a new message is posted to the Forum.”

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	Forum.” (EX-1006, 6:54-55.) That is, the server receives the message from the user in the Forum (“web based shared information channel”). The message is then forwarded to other members of the Forum delivered to “<i>another one of the first and second users</i>” over the wireless network for display via the Forums application on their mobile device. Specifically, as shown in Figure 7, Forum members are “shown the messages posted to that Forum.” (EX-1006, 6:38-40.) “Messages appear in date order, i.e. newest messages appear at the bottom,” confirming delivery of the messages to the members. (EX-1006, 6:40-42.) [image omitted] Symbian Forums—Forsyth, Figure 7 Thus, the combination of Randall and Forsyth discloses that the server “<i>receiv[es] in the web-based shared information channel [Forum; Naked Chef] a message from one of the first and second users [e.g. Lucy and Steve] via the personalized content application [Forums Service] of its corresponding mobile device</i>” [14A]/[18A] and “<i>deliver[s] the message over said at least one network [wireless network] to another one of the first and second users [e.g. Dom] via the personalized content application [Forums Service] of its</i>	(Forsyth, 6:54-55.) That is, the server receives the message from the user in the Forum (“Web-based shared information channel”). The message is then forwarded to other members of the Forum (delivered to “<i>another one of the first and second users</i>”) over the wireless network for display via the Forums application on their mobile device. Specifically, as shown in Figure 7, Forum members are “shown the messages posted to that Forum.” (Forsyth, 6:38-40.) “Messages appear in date order, i.e. newest messages appear at the bottom,” confirming delivery of the messages to the members. (Forsyth, 6:40-42.) [image omitted] Symbian Forums—Forsyth, Figure 7 Thus, the combination of Randall and Forsyth discloses that the server “<i>receiv[es] in the web-based shared information channel [Forum; Naked Chef] a message from one of the first and second users [e.g., Lucy and Steve] via the personalized content application [Forums Service] of its corresponding mobile device</i>” [14A]/[18A] and “<i>deliver[s] the message over said at least one network [wireless network] to another one of the first and second users [e.g., Dom] via the personalized content application [Forums service] of its corresponding mobile device</i>” [14B]/[18B].

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	<i>corresponding mobile device”</i> [14B]/[18B]. (EX-1003, ¶161.) 542 Petition, pp. 50-52	Ex. 1003, ¶¶ 160-161
26	Because a Forum is persistent, the communication object storing its messages is also “<i>persistent</i>.” In Forums, “[a]ll linked (e.g. threaded) communications, such as replies and comments, then become part of the same communication object and, like any object are treated as a discrete entity.” (EX-1006, 4:20-24.) And the communication object is persistent, “the entire communication object can be sent to a new person, or be archived etc.” (EX-1006, 4:25-26, 7:6-8 (“The contents of a Forum can be forwarded-on, for example, to contacts who are not participating in the Forum, or to the Jotter application.”).) The Randall-Forsyth combination discloses “integrating the first and second device captured data” received in messages from mobile devices through the use of the single communication object for the Forum. (EX-1003, ¶164.) 542 Petition, p. 53	Because a Forum is persistent, the communication object storing its messages is also “<i>persistent</i>.” As I discussed above, in Forums, “[a]ll linked (e.g. threaded) communications, such as replies and comments, then become part of the same communication object and, like any object are treated as a discrete entity.” (Forsyth, 4:20-24.) Because the communication object is persistent, “the entire communication object can be sent to a new person, or be archived etc.” (Forsyth, 4:25-26, 7:6-8 (“The contents of a Forum can be forwarded-on, for example, to contacts who are not participating in the Forum, or to the Jotter application.”).) As I discussed in §IV.B.3.b, the Randall-Forsyth combination discloses “integrating the first and second device captured data” received in messages from mobile devices through the use of the single communication object for the Forum. Ex. 1003, ¶¶ 163-164
27	3. Motivation to Combine Pelkey and Eck A POSITA would have been motivated to combine Eck’s teachings regarding PagerWorld with the network and message server architecture taught in Pelkey. (EX-1003, ¶¶173-77.)	3. Motivation to Combine Pelkey and Eck A POSITA would have been motivated to combine Eck’s teachings regarding PagerWorld with the network and message server architecture taught in Pelkey.

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	Pelkey and Eck both disclose devices in the same field as the '348 patent—“network-based communication systems.” (EX-1001, 1:26-27; EX-1007, 1:37-42; EX-1008, Abstract.) Pelkey and Eck are also reasonably pertinent to problems addressed by the '348 patent, namely “optimizing” the sharing of information content on mobile devices. (EX-1001, 1:51-55; EX-1003, ¶173.) Eck discloses PagerWorld features, including the ability to share photos and sound clips and exchange messages with other players. In the preferred embodiment, such information is exchanged using a “pager cartridge” where “message charges are generally based on the number of characters in the message.” (EX-1008, 16:57-60.) While Eck discloses its “invention” can be applied to other technologies like WAP (EX-1008, 25:17-20), it does not specifically disclose a client-server structure as taught in Pelkey. Pelkey discloses use of a network server and message server to facilitate game play and exchanging messages amongst users. A POSITA would be motivated to apply the network and message server architecture in Pelkey to Eck in order to avoid the charge-based system for exchanging messages and photos via pager cartridge in Eck. (EX-1003, ¶176.) In addition, a	Pelkey and Eck both disclose an enhanced version of the Nintendo GameBoy® that is in the same field as the '348 patent—“network-based communication systems.” (See EX-1001, 1:26-28; Pelkey, 1:37-42; Eck, Abstract.) Pelkey and Eck are also reasonably pertinent to problems addressed by the '348 patent, namely “optimizing” the sharing of information content on mobile devices. (See, e.g, EX-1001, 1:50-55.) Eck discloses the features of a multi-player game, PagerWorld. Eck further discloses the ability to share photos and sound clips and exchange messages with other players. In the preferred embodiment, such information is exchanged using a “pager cartridge” where “message charges are generally based on the number of characters in the message.” (Eck, 16:57-60.) While Eck discloses that its “invention” can be applied to other technologies like WAP (Eck, 25:17-20), it does not specifically disclose a client-server structure as taught in Pelkey. Pelkey discloses the use of a network server and message server to facilitate game play and exchanging messages amongst users. But it does not specifically disclose the integration of messaging and sharing content like photos and sound clips with other users within its client-server

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	POSITA would be motivated to modify the “pager cartridge” in Eck as necessary to use PagerWorld in Pelkey given the disclosed benefits of PagerWorld including “exploration and adventure,” “chat and community interaction,” and “character growth.” (<i>Id.</i>; EX-1008, 10:13-19.) Notably, Pelkey does not describe any game play that includes in-game messaging in conjunction with the aforementioned features. In addition, the combination is nothing more than the application of a known technique (Eck’s PagerWorld game) to a known method/product (Pelkey’s client-server based messaging server) which was ready for further improvement to achieve predictable results. Replacing the pager system infrastructure in Eck with the client-server architecture in Pelkey is the simple substitution of a one known element for another to achieve a predictable result (internet-based functionality). (EX-1003, ¶176.) A POSITA would have had a reasonable expectation of success in the combination and the results of the combination would have been predictable because both references are directed to the same product and activity (game play). (EX-1003, ¶177.) Both Pelkey and Eck disclose the desirability of combining messaging capabilities with game play in a portable gaming system. (EX-1007, 2:20-23; EX-1008, 10:32-44.) As explained below, the complimentary	environment. A POSITA would be motivated to apply the network and message server architecture in Pelkey to Eck in order to avoid the charge-based system for exchanging messages and photos via pager cartridge in Eck. In addition, a POSITA would be motivated to modify the “pager cartridge” in Eck as necessary to use PagerWorld in Pelkey given the disclosed benefits of PagerWorld including “exploration and adventure,” “chat and community interaction,” and “character growth.” (Eck, 10:13-19.) Notably, Pelkey does not describe any game play that includes in-game messaging in conjunction with the aforementioned features. In addition, the combination is nothing more than the application of a known technique (Eck’s PagerWorld game) to a known method/product (Pelkey’s client-server based messaging server) which was ready for further improvement to achieve predictable results. Replacing the pager system infrastructure in Eck with the client-server architecture in Pelkey is the simple substitution of a one known element for another to achieve a predictable result (internet-based functionality). As is using the PagerWorld “pager cartridge” in the Pelkey portable game machine. A POSITA would have had a reasonable expectation of success in the combination and the results of the combination would have been predictable because both references

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	network architecture disclosed in Pelkey and Eck further demonstrates such a modification could be made with a reasonable expectation of success. (EX-1003, ¶177.) 542 Petition, pp. 58-60	are directed to the same product and activity (game play). Both Pelkey and Eck disclose the desirability of combining messaging capabilities with game play in a portable gaming system. (Pelkey, 2:20-23; Eck, 10:32-44.) And as explained below, the complimentary network architecture disclosed in Pelkey and Eck further demonstrates that such a modification could be made with a reasonable expectation of success. Ex. 1003, ¶¶ 173-177
28	Eck explains that a pager cartridge “is provided for use with a game machine having a game program executing processing system including a microprocessor.” (EX-1008, 1:60-65.) The pager (messaging) cartridge “includes a memory 145 for storing software used in the pager operations.” (EX-1008, 7:7-9.) Pelkey similarly discloses “[a] messaging service client is implemented by program code contained in an application (e.g., a video game, a web browser) executed by the game system.” (EX-1007, 1:42-44.) 542 Petition, p. 61	Eck explains that a cartridge including messaging functionality (e.g., a pager cartridge) “is provided for use with a game machine having a game program executing processing system including a microprocessor.” (Eck, 1:60-65.) The messaging cartridge “includes a memory 145 for storing software used in the pager operations.” (Eck, 7:7-9.) Pelkey similarly discloses “[a] messaging service client is implemented by program code contained in an application (e.g., a video game, a web browser) executed by the game system.” (Pelkey, 1:42-44.) Ex. 1003, ¶ 183
29	When inserted, the “game machine circuitry [] access[es] information contained with ROM 42 (and read/write memory 46), which information controls the game machine ... under control of the ROM game program information.” (EX-	When inserted, the “game machine circuitry [] access[es] information contained with ROM 42 (and read/write memory 46), which information controls the game machine ... under control of the ROM game program information.” (Eck,

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	1008, 4:9-20.) The game machine 10 then “automatically activates a display of messages on the display thereof in accordance with the operating software stored in the memory of the pager.” (EX-1008, 22:10-14.) Eck likewise discloses the use of executable software code to perform the disclosed functions. (EX-1008, 25:42-51; EX-1003, ¶185.) Therefore, the Pelkey-Eck combination discloses “<i>non-transitory computer-readable storage medium having embodied therein executable code of one or more software programs, wherein said executable program code when executed by a processing element</i>” causes the processing element to perform the remaining steps in claim 17. 542 Petition, pp. 61-62	4:9-20.) The game machine 10 then “automatically activates a display of messages on the display thereof in accordance with the operating software stored in the memory of the pager.” (Eck, 22:10-14.) Eck likewise discloses the use of executable software code to perform the disclosed functions: [block quote omitted] (Eck, 25:42-51.) Therefore, the combination of Pelkey and Eck discloses “<i>non-transitory computer-readable storage medium having embodied therein executable code of one or more software programs, wherein said executable program code when executed by a processing element</i>” causes the processing element to perform the remaining steps in claim 17. Ex. 1003, ¶¶ 184-186
30	The Pelkey-Eck combination discloses a server having a “<i>processing element comprising a processor coupled to a memory.</i>” Pelkey recites, in its claim 18, a “server process for a game network server embodied on a storage device and comprising instructions executable by a server processing system.” (EX-1007, 16:44-46.) Thus, Pelkey discloses “<i>a processor [processing system] coupled to a memory [storage device].</i>” While	The combination of Pelkey and Eck discloses a server having a “<i>processing element comprising a processor coupled to a memory.</i>” Pelkey recites, in its claim 18, a “server process for a game network server embodied on a storage device and comprising instructions executable by a server processing system.” (Pelkey, 16:44-46.) Thus, Pelkey discloses “<i>a processor [processing system] coupled to a memory [storage</i>

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	Pelkey does not discuss this structure in the detailed description, a POSITA would have understood that the hardware used for a server is a digital computing device such as a personal computer. Such a personal computer is the host 1201 shown in Pelkey’s Figure 6B below. (See Pelkey, 12:43-45.) [image omitted] Pelkey, Figure 6B Should PO contend “<i>memory</i>” of the “<i>processing element</i>” must store instructions executed by the processor, such memory would have been obvious, if not inherent in Pelkey and Eck which both teach software running on the server. Because the software/applications executing on a processor are stored in memory and also access information stored locally in memory, a POSITA would have understood Pelkey and Eck further disclose or suggest the “<i>processor [is] coupled to a memory.</i>” (EX-1003, ¶188.) The Pelkey-Eck combination discloses a “<i>plurality of mobile devices</i>” under any proposed construction, though the term does not require construction in the present IPR because both Pelkey and Eck discloses a “<i>mobile device</i>” under any reasonable interpretation of the term.	device].” While Pelkey does not discuss this structure in the detailed description, a POSITA would have understood that the hardware used for a server is a digital computing device such as a personal computer. Such a personal computer is the host 1201 shown in Pelkey’s Figure 6B below. (See Pelkey, 12:43-45.) [image omitted] Pelkey, Figure 6B Should PO contend “<i>memory</i>” of the “<i>processing element</i>” must store instructions executed by the processor, such memory would have been obvious, if not inherent in Pelkey and Eck which both teach software running on the server. Because the software/applications executing on a processor are stored in memory and also access information stored locally in memory, a POSITA would have understood Pelkey and Eck further disclose or suggest the “<i>processor [is] coupled to a memory.</i>” The combination of Pelkey and Eck discloses a “<i>plurality of mobile devices.</i>” As an initial matter, and as I noted in Ground 1, I understand that several constructions of the term “mobile device” have been proposed in the MDT-Meta-Litigation and in the Meta-MDT-IPR. As I noted in that section, the term does not require construction in the present IPR

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	Specifically, both Pelkey and Eck disclose a “portable game machine that is selectively configurable for one or more different operations such as wireless communications, global positioning, image capturing and combinations thereof.” (EX-1008, 1:12-16, Fig. 1B (below); <i>see</i> Pelkey, 4:55-57 (“FIGS. 3A, 3B and 3C show a portable (hand-held) color-display game system 110”), Fig. 3B.) [image omitted] Eck, Figure 1B The portable game machine described by both Pelkey and Eck is a “piece of handheld equipment” and therefore a “<i>mobile device</i>” under PO’s MDT-Meta-Litigation construction. This portable game machine processes information and is capable of being configured for communication over a network. Thus, the portable game machine is a “<i>mobile device</i>” under Meta’s MDT-Meta-Ligation and Meta-MDT-IPR constructions. Finally, as illustrated by Eck’s Figure 1B, the portable game machine has limited display space and because it lacks a physical or soft keyboard, a POSITA would have understood the portable game machine also has limited navigational capabilities. Thus, the portable game machine is also a “<i>mobile device</i>” under PO’s Meta-MDT-IPR construction. (EX-1003, ¶191.)	because both Pelkey and Eck discloses a “<i>mobile device</i>” under any reasonable interpretation of the term. Specifically, both Pelkey and Eck disclose a “portable game machine and, more particularly, to a portable game machine that is selectively configurable for one or more different operations such as wireless communications, global positioning, image capturing and combinations thereof.” (Eck, 1:12-16, Fig. 1B (below); <i>see</i> Pelkey, 4:55-57 (“FIGS. 3A, 3B and 3C show a portable (hand-held) color-display game system 110”), Fig. 3B.) An exemplary game machine is the “GameBoy® Color game machine,” (Eck, 3:29-33; <i>see</i> Pelkey, 4:66-67), a commercially available product widely known by the general public and those skilled in the art as of the earliest possible priority date. [image omitted] Eck, Figure 1B The portable game machine described by both Pelkey and Eck is a “piece of handheld equipment” and therefore a “<i>mobile device</i>” under PO’s MDT-Meta-Litigation construction. This portable game machine processes information and is capable of being configured for communication over a network, as I discussed above. Thus, the portable game machine is a

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	The Pelkey-Eck combination discloses a “<i>plurality of mobile devices.</i>” Pelkey is directed to “[a] messaging system [that] includes a web server computer and at least two video game systems.” (EX-1007, Abstract.) Eck provides “a portable game machine that provides enhanced multi-player capabilities through communications with other game machines, portable or otherwise,” (EX-1008, 1:48-51), for example, when a player “wirelessly intervene[s] in a video game either by result of a player solicitation or an unsolicited action from another player (using a similar pager-equipped portable game machine) on the fly—wherever the portable game machine is operational.” (EX-1008, 14:12-17; EX-1003, ¶192.) The Pelkey-Eck combination also discloses a “<i>network interface coupled to the processing element and configured to communicate with a plurality of mobile devices over at least one network.</i>” As shown in Pelkey, Figure 6B, the host system includes a processing unit 1203, system memory 1205, and network interface 1156. Thus, the server also includes a “<i>network interface.</i>” A POSITA would understand that the disclosed network interface is coupled to the processing element and configured to communicate with a plurality of	“<i>mobile device</i>” under Meta’s MDT-Meta-Litigation and Meta-MDT-IPR constructions. Finally, as illustrated by Eck’s Figure 1B, the portable game machine has limited display space and because it lacks a physical or soft keyboard, a POSITA would have understood the portable game machine also has limited navigational capabilities. Thus, the portable game machine is also a “<i>mobile device</i>” under PO’s Meta-MDT-IPR construction (“a portable device with limited display space and limited navigational capabilities that connects to a mobile site and/or mobile channel via a wireless network”). The combination of Pelkey and Eck discloses a “<i>plurality of mobile devices.</i>” Pelkey is directed to “[a] messaging system [that] includes a web server computer and at least two video game systems.” (Pelkey, Abstract.) Eck provides “a portable game machine that provides enhanced multi-player capabilities through communications with other game machines, portable or otherwise.” (Eck, 1:48-51.) For example, when discussing an example player intervention, Eck notes that “[t]he portable game machine equipped with a pager cartridge as described above has the ability to wirelessly intervene in a video game either by result of a player solicitation or an unsolicited action from another player (using a similar pager-equipped portable game

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	mobile devices over at least one network given the disclosure in Pelkey that “[g]ame network server 14 maintains a list of registered usernames. The usernames are checked to confirm that a particular user is a registered user of the messaging service prior to granting that user access to the messaging service.” (EX-1007, 7:1-6; EX-1003, ¶194.) [image omitted] Pelkey, Figure 6B 542 Petition, pp. 62-67	machine) on the fly—wherever the portable game machine is operational.” (Eck, 14:12-17.) The combination of Pelkey and Eck also discloses a “<i>network interface coupled to the processing element and configured to communicate with a plurality of mobile devices over at least one network.</i>” As shown in Pelkey, Figure 6B above, the host system includes a processing unit 1203, system memory 1205, and network interface 1156. Thus, the server also includes a “<i>network interface.</i>” A POSITA would understand that the disclosed network interface is coupled to the processing element and configured to communicate with a plurality of mobile devices over at least one network given the disclosure in Pelkey that “[g]ame network server 14 maintains a list of registered usernames. The usernames are checked to confirm that a particular user is a registered user of the messaging service prior to granting that user access to the messaging service.” (Pelkey, 7:1-6.) [image omitted] Pelkey, Figure 6B Ex. 1003, ¶¶ 187-194
31	First, the Pelkey-Eck combination discloses that the “ <i>plurality of mobile</i>	First, the Pelkey-Eck combination discloses that the “ <i>plurality of mobile</i>

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	<i>devices</i>” “<i>capture[] data</i>” including at least capturing messages, photos/images, sound clips/audio files and GPS coordinates. Eck discloses “a game machine is provided with ... digital camera circuitry configured to capture an image.” (EX-1008, 2:16-18.) 542 Petition, p. 67	<i>devices</i>” include “<i>device captured data</i>” including at least capturing photos/images and sound clips/audio files at the portable game machine. Eck discloses “a game machine is provided with ... digital camera circuitry configured to capture an image.” (Eck, 2:16-18.) For example, Eck discloses that a messaging cartridge (e.g., pager cartridge), “is itself provided with a slot for receiving” another cartridge. (<i>See, e.g.</i>, Eck, 5:23-25.) Ex. 1003, ¶ 196
32	The portable game machine having an inserted messaging cartridge and an inserted camera cartridge “<i>captur[es] data</i>.” Eck’s digital camera cartridge “is usable to capture images, which images may then be transmitted to others via an operation using” the messaging cartridge into which the camera cartridge is inserted. (EX-1008, 23:38-41; <i>see also</i> Eck, 2:15-18 (“a game machine is provided with ... digital camera circuitry configured to capture an image”).) The “digital camera cartridge” may also be “configured to capture sounds [and] these captured sounds may be used by game machine 10 and/or transmitted as a message using pager cartridge.” (EX-1008, 9:20-23.) Eck also discloses that “a separate ‘sound card’ may be ‘piggy-backed’ to game machine 10” via the messaging cartridge. (EX-1008, 9:23-25.) Eck further discloses a “global positioning	The portable game machine having an inserted messaging cartridge and an inserted camera cartridge “<i>captur[es] content</i>.” Eck’s digital camera cartridge “is usable to capture images, which images may then be transmitted to others via an operation using” the messaging cartridge into which the camera cartridge is inserted. (Eck, 23:38-41; <i>see also</i> Eck, 2:15-18 (“a game machine is provided with ... digital camera circuitry configured to capture an image”).) The “digital camera cartridge” may also be “configured to capture sounds [and] these captured sounds may be used by game machine 10 and/or transmitted as a message using pager cartridge.” (Eck, 9:20-23.) In addition to the camera cartridge, Eck discloses other cartridges that can be piggybacked with the messaging cartridge to “<i>captur[e] content</i>.” For

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	system (GPS) cartridge” that captures “user portion information” (i.e., user location). (<i>See</i> EX-1008, 22:28-29.) Pelkey likewise discloses that a digital camera can be attached to its portable game machine. (EX-1007, 7:26-31.) Indeed, both Pelkey and Eck incorporate by reference the same Nintendo patent disclosure describing the camera in detail. (EX-1007, 7:26-31, <i>citing</i> U.S. Patent 6,435,969; EX-1008, 23:41-48, <i>citing</i> Ser. No. 09/430,169; EX-1003, ¶199.) 542 Petition, pp. 68-69	example, Eck discloses that “a separate ‘sound card’ may be ‘piggy-backed’ to game machine 10” via the messaging cartridge. (Eck, 9:23-25.) Eck further discloses a “global positioning system (GPS) cartridge” that captures “user portion information” (i.e., user location). (<i>See</i> Eck, 22:28-29.) Pelkey likewise discloses that a digital camera can be attached to its portable game machine. (Pelkey, 7:26-31.) Indeed, both Pelkey and Eck incorporate by reference the same Nintendo patent disclosure describing the camera in detail. (Pelkey, 7:26-31 <i>citing</i> U.S. Patent 6,435,969; Eck, 23:41-48 <i>citing</i> Ser. No. 09/430,169.) Ex. 1003, ¶¶ 197-199
33	The Pelkey-Eck combination also discloses “<i>reciev[ing] first device-captured data from a first one of the mobile devices via the network interface</i>” [1C] and “<i>receiv[e]/[ing] first device-captured data from a first mobile device over at least one network</i>” [13A/17A]. One way the server in the Pelkey-Eck combination receives device-captured data is by receiving messages prepared by a user containing text, photos or sound clips. The message, photos and sound clips are each examples of “device captured data.” The network implementing the messaging service of Pelkey and Eck, illustrated in Pelkey’s	The Pelkey-Eck combination also discloses “<i>reciev[ing] first device-captured data from a first one of the mobile devices via the network interface</i>” [1C] and “<i>receiving first device-captured data from a first mobile device over at least one network</i>” [13A/17A]. One way the server in the Pelkey-Eck combination receives device-captured data is by receiving messages prepared by a user containing text, photos or sound clips. The message, photos and sound clips are each examples of “device captured data.” The network implementing the messaging service of Pelkey and Eck, illustrated in Pelkey’s

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	Figure 1A (reproduced below), includes the game system (e.g., portable game machine) coupled via a network to a server. (EX-1007, 2:58-3:4.) The network server “provides the messaging service.” (EX-1007, 3:9-10.) PagerWorld includes a “Message Center” that “permits users, among other things, to read their messages and to compose and send new messages.” (EX-1008, 11:27-31.) “When a message is selected from Message Center screen, the contents of the message appear, along with the user’s persona character and ‘handle’ of the person that sent the message.” (EX-1008, 11:53-57; <i>see also</i> EX-1008, 12:36-38 (“Any time the user sends a message, his/her persona character appears alongside the message on the other user’s screen.”).) PagerWorld supports transmission of messages “with images and sound bytes to other pagers in the network using, for example, a digital camera cartridge in combination with a pager cartridge.” (EX-1008, 16:42-45, 24:30-36, 2:15-23.) In addition to photos/images, the message can include sounds (audio file). (EX-1008, 20:12-14, 21:47-48.) 542 Petition, pp. 69-70	Figure 1A (reproduced below), includes the game system (e.g., portable game machine) coupled via a network to a server. (Pelkey, 2:58-3:4.) The network server “provides the messaging service.” (Pelkey, 3:9-10.) PagerWorld includes a “Message Center” that “permits users, among other things, to read their messages and to compose and send new messages. The Message Center screen features a window 232 that lists unread messages.” (Eck, 11:27-31.) “When a message is selected from Message Center screen, the contents of the message appear, along with the user’s persona character and ‘handle’ of the person that sent the message.” (Eck, 11:53-57; <i>see also</i> Eck. 12:36-38 (“Any time the user sends a message, his/her persona character appears alongside the message on the other user’s screen.”).) PagerWorld supports transmission of messages “with images and sound bytes to other pagers in the network using, for example, a digital camera cartridge in combination with a pager cartridge.” (Eck, 16:42-45, 24:30-36 (“the images stored in the read/write memory of digital camera cartridge 300 may be transmitted to other [sic] using the radio circuitry of pager cartridge 100”), 2:15-23 (inputs “cause the image captured by the digital camera to be transmitted as part of a message”).) In addition to

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		photos/images, the message can include sounds (audio file). (Eck, 20:12-14 (discussing messages containing “digital camera picture transmission (with/without sound)” and “messages plus sound bites”), 21:47-48 (“Digital images can be exchanged and optionally supplemented by sound bites from a sound dictionary”).) Ex. 1003, ¶¶ 200-203
34	Such a message can be sent through the Message Center accessed through an icon on the main screen. (EX-1008, 11:26-28.) While in the Message Center (e.g., screen illustrated in Figure 8C (below-left)), user activates the quill icon 236 to navigate to the “Compose Message screen 290” of Figure 8F. (EX-1008, 11:37-38.) The “send to” window 292 “allows the user to choose to whom the message will be sent.” (EX-1008, 12:10-11.) A user can opt to send the message to an individual, to a pre-defined group (e.g., a buddy list), (EX-1008, 20:9), or as a broadcast to all messaging devices in PagerWorld, (EX-1008, 20:8, 9:46-49). For group messaging, Pelkey teaches that the messaging service client “allows the user to create a list (‘buddy list’) of other users.” (EX-1007, 7:33-35.) The buddy list “is stored by the network server.” (EX-1007, 7:35-36.) In the Pelkey-Eck combination, the PagerWorld user can identify a “buddy list” in the “send to”	Such a message can be sent through the Message Center accessed through an icon on the main screen. (Eck, 11:26-28.) While in the Message Center (e.g., screen illustrated in Figure 8C (below-left)), user activates the quill icon 236 to navigate to the “Compose Message screen 290” of Figure 8F. (Eck, 11:37-38.) The “send to” window 292 “allows the user to choose to whom the message will be sent.” (Eck, 12:10-11.) A user can opt to send the message to an individual, to a pre-defined group (e.g., a buddy list), (Eck, 20:9), or as a broadcast to all messaging devices in PagerWorld, (Eck, 20:8, 9:46-49 (“messages from the paging system operator may be sent to all users in the paging system, to certain groups of users in the paging system or to a particular user in the paging system”).). For group messaging, Pelkey teaches that the messaging service client “allows the user to create a list (‘buddy list’) of other users (‘buddies’) with whom he/she wishes to remain in contact.”

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	window to send a “carbon copy” of the message. [image omitted] Eck, Figure 8C (left), Figure 8F (right) 542 Petition, pp. 70-71	(Pelkey, 7:33-35.) The buddy list “is stored by the network server.” (Pelkey, 7:35-36.) In the combination of Pelkey and Eck, the PagerWorld user can identify a “buddy list” in the “send to” window to send a “carbon copy” of the message. [image omitted] Eck, Figure 8C (left), Figure 8F (right) Ex. 1003, ¶
35	As explained by Eck, “image and sound data may be compressed/decompressed in accordance with well-known compression/decompression techniques to more effectively utilize the available bandwidth.” (EX-1008, 16:45-48.) The message may further include the sending user’s persona. (See EX-1008, 11:53-57, 12:36-38 (“Any time the user sends a message, his/her persona character appears alongside the message on the other user’s screen.”).) Pelkey discloses that the server “suppl[ies] messages received from one logged-in player to another logged-in player.” (EX-1007, 17:1-5.) The message is thus provided “<i>via the network interface</i>” as shown in the Figure below. (See, e.g., EX-1008, 2:15-18 (“a game machine is provided with radio circuitry configured to transmit messages”).) This is consistent with Eck’s use of GSM-SMS which requires a server to	As explained by Eck, this “image and sound data may be compressed/decompressed in accordance with well-known compression/decompression techniques to more effectively utilize the available bandwidth.” (Eck, 16:45-48.) The message may further include the sending user’s persona. (See Eck, 11:53-57, 12:36-38 (“Any time the user sends a message, his/her persona character appears alongside the message on the other user’s screen.”).) Pelkey discloses that the server “suppl[ies] messages received from one logged-in player to another logged-in player.” (Pelkey, 17:1-5.) The message is thus provided “<i>via the network interface</i>” as shown in the Figure below. (See, e.g., Eck. 2:15-18 (“a game machine is provided with radio circuitry configured to transmit messages”).) This is consistent with Eck’s use of GSM-SMS which requires a server to act as a message

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	act as a message service centre for storing and forwarding messages from originators to recipients. (<i>See infra</i> §VI.B.3.b; EX-1003, ¶205.) [image omitted] Pelkey, Figure 1A Another way the server in the Pelkey-Eck combination receives device-captured data is by receiving image data to permit a user to personalize their persona character. Players in PagerWorld are represented “by a ‘persona character’ and it is this character that all other PagerWorld players will see.” (EX-1008, 10:23-25.) The user’s persona is a feature element on the PagerWorld screens and “function[s] as a sort of ‘pager’ tour guide.” (EX-1008, 10:62-64.) A user’s persona is shared with other members of the PagerWorld community. (EX-1008, 11:54-57.) The user’s address book is a list of “other users by their handles,” and next to the user’s handle “is the persona character of the other user as it appeared on his/her last communication with the user.” (EX-1008, 12:16-19.) 542 Petition, pp. 72-73	service centre for storing and forwarding messages from originators to recipients. (<i>See supra</i> §IV.A.1.c.iii.) I illustrate this message flow in Pelkey’s Figure 1 below, showing a message from a portable game system being sent to the server. [image omitted] Pelkey, Figure 1A Another way the server in the Pelkey-Eck combination receives device-captured data is by receiving image data to permit a user to personalize their persona character. Players in PagerWorld are represented “by a ‘persona character’ and it is this character that all other PagerWorld players will see.” (Eck, 10:23-25.) As I discussed above, the user’s persona is a feature element on the PagerWorld screens and “function[s] as a sort of ‘pager’ tour guide.” (Eck, 10:62-64.) A user’s persona is shared with other members of the PagerWorld community: “the contents of the message appear, along with the user’s persona character and ‘handle’ of the person that sent the message.” (Eck, 11:54-57.) The user’s address book is a list of “other users by their handles,” and next to the user’s handle “is the persona character of the other user as it appeared on his/her last communication with the user.” (Eck, 12:16-19.)

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		Ex. 1003, ¶¶ 205-206
36	The Pelkey-Eck combination also discloses “<i>reciev[ing] second device-captured data from a second one of the mobile devices via the network interface</i>” [1D] and <i>receiving second device-captured data from a second mobile device over said at least one network</i> [13B]/[17B]. For example, each user is capable of sending and receiving messages, photos and sound clips and customizing their persona using, e.g., photos taken with the integrated digital camera. (EX-1008, 11:32-35, 12:16-19; EX-1003, ¶208.) 542 Petition, p. 74	The Pelkey-Eck combination also discloses “<i>reciev[ing] second device-captured data from a second one of the mobile devices via the network interface</i>” [1D] and <i>receiving second device-captured data from a second mobile device over said at least one network</i> [13B]/[17B]. For example, each user is capable of sending messages, photos and sound clips and customizing their persona using, e.g., photos taken with the integrated digital camera. (Eck, 11:32-35, 12:16-19.) Ex. 1003, ¶ 208
37	PagerWorld is a “shared information channel.” Eck discloses that the messaging cartridge includes a memory “storing software used” in the messaging (e.g., pager) operations and “one or more video game programs that are executable by CPU 26 of game machine 10.” (EX-1008, 7:7-22.) In addition to messaging (e.g., paging functions), the messaging cartridge “can be used in game playing.” (EX-1008, 9:60-61.) An example of a gaming application is “Multiple User Dungeon (MUD) games” which are “Internet-based on-line exploration and quest games in which an open-ended number of players simultaneously exist in the same game world, sharing experiences and adventures.” (EX-1008, 10:2-7.) “[K]ey components” of such games include “chat and	PagerWorld is a “shared information channel.” Eck discloses that the messaging cartridge includes a memory “storing software used” in the messaging (e.g., pager) operations and “one or more video game programs that are executable by CPU 26 of game machine 10.” (Eck, 7:7-22.) In addition to messaging (e.g., paging functions), the messaging cartridge “can be used in game playing.” (Eck, 9:60-61.) An example of a gaming application is “Multiple User Dungeon (MUD) games” which are “Internet-based on-line exploration and quest games in which an open-ended number of players simultaneously exist in the same game world, sharing experiences and adventures.” (Eck, 10:2-7.) “[K]ey components” of such games include “exploration and adventure,” “chat and community

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	community interaction.” (EX-1008, 10:13-19.) 542 Petition, p. 75	interaction,” and “character growth and perpetual, dynamic worlds that grow, adapt and change.” (Eck, 10:13-19.) Ex. 1003, ¶ 210
38	Although Eck uses the word “PagerWorld” in the MUD title to reflect the communication means is paging, a POSITA would have understood that such a MUD is equally applicable when the communication means is another messaging type such as SMS or messaging via a WAP protocol. PagerWorld includes client software in the portable game machine (client program) and corresponding software in the server (server program). (<i>See</i> EX-1008, 4:61-5:7, 9:40-59.) 542 Petition, p. 76	Although Eck uses the word “PagerWorld” in the MUD title to reflect the communication means is paging, a POSITA would have understood that such a MUD is equally applicable when the communication means is another messaging type such as SMS or messaging via a WAP protocol. PagerWorld includes client software in the portable game machine (client program) and corresponding software in the server (server program). (<i>See</i> Eck, 4:61-5:7, 9:40-59.) Ex. 1003, ¶ 211
39	Pelkey discloses a network “in which the messaging service” may be implemented. (EX-1007, 2:58-60.) The network “includes game systems 10 connected via communications circuits 12 (e.g., modems, network interfaces, etc.) to a wide area network 16 such as the Internet.” (EX-1007, 2:60-62.) Pelkey explains that game system 10 may be a video game system, such as the N64 video game system, connected to a television (<i>see</i> Pelkey, 3:38-48), or the portable game machine 110 (EX-1007, 4:55-57.). Pelkey’s Figure 1A with the game system 10 on the left using the N64 game system illustrated in Pelkey’s	Pelkey discloses a network “in which the messaging service” may be implemented. (Pelkey, 2:58-60.) The network “includes game systems 10 connected via communications circuits 12 (e.g., modems, network interfaces, etc.) to a wide area network 16 such as the Internet.” (Pelkey, 2:60-62.) Pelkey explains that game system 10 may be a video game system, such as the N64 video game system, connected to a television. (<i>See</i> Pelkey, 3:38-48.) Game system 10 may also be the portable game machine 110. (Pelkey, 4:55-57.) I reproduced Pelkey’s Figure 1A below with the game system 10 on the left using the N64 game system

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	Figure 2 and the game system 110 on the right using the portable game machine in Eck’s Figure 1B is below. The figure illustrates the connection from the N64 game system to the server via the Internet as taught by Pelkey. [image omitted] Pelkey, Figure 1 Pelkey does not disclose details of the wireless network used to provide wireless messaging from the game system to the server. However, Eck also explicitly discloses that its “present invention” may be “applied to other wireless technologies such a GSM (Global System for Mobile Communications) and WAP (Wireless Application Protocol).” (EX-1008, 25:17-20.) A POSITA would have been motivated to use either GSM-SMS or WAP for the messaging service, rather than paging, to obtain the enhanced features of those protocols. Based on Eck’s disclosure, a POSITA would have understood that the portable game machine communicates with the server via messaging available via the GSM network (e.g., SMS) or messaging available via WAP. GSM-SMS is functionality implementable over a wireless network and, as shown in Pelkey’s Figure 1, the GSM network is separate from the Internet connecting the N64	illustrated in Pelkey’s Figure 2 and the game system 110 on the right using the portable game machine in Eck’s Figure 1B. I have also illustrated the connection from the N64 game system to the server via the Internet as taught by Pelkey. [image omitted] Pelkey, Figure 1 Pelkey does not disclose details of the wireless network used to provide wireless messaging from the game system to the server. However, while Eck mentions use of a paging network for this functionality, Eck also explicitly discloses that its “present invention” may be “applied to other wireless technologies such a GSM (Global System for Mobile Communications) and WAP (Wireless Application Protocol).” (Eck, 25:17-20.) A POSITA would have been motivated to use either GSM-SMS or WAP for the messaging service, rather than paging, to obtain the enhanced features of those protocols. Based on Eck’s disclosure, a POSITA would have understood that the portable game machine communicates with the server via messaging available via the GSM network (e.g., SMS) or messaging available via WAP. GSM-SMS is functionality implementable over a wireless network and, as shown in Pelkey’s Figure 1, the GSM network is separate

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	game system to the server. The WAP protocol stack transports data over GSM’s SMS. (EX-1003, ¶¶52-60.) The SMS message includes a header with data fields indicating control and content details for the message. (EX-1003, ¶214.) The Pelkey-Eck combination thus discloses a medium (PagerWorld) “for transferring information accessible to more than one user via the internet” under the agreed construction in the Meta-MDT-IPR. 542 Petition, pp. 76-78	from the Internet connecting the N64 game system to the server. As I discussed in §IV.A.1.c.ii, the WAP protocol stack transports data over GSM’s SMS. I provided an overview of a mobile originated message in SMS in a GSM network in my analysis of this limitation in Ground 1. As discussed in that section, the SMS message includes a header with data fields indicating control and content details for the message. The Pelkey-Eck combination thus discloses a medium (PagerWorld) “for transferring information accessible to more than one user via the web” under the agreed construction in the Meta-MDT-IPR. Ex. 1003, ¶¶ 212-214
40	In addition, use of WAP teaches or at least suggests that selection of a specific portal from the main PagerWorld screen constitutes selecting a web-based action. WAP is “based on the WWW communication protocols” and “WWW content formats.” (EX-1013, 13.) WAP “enables the supplying of advanced Internet services into digital mobile stations of wireless communication networks.” (EX-1020, 6:63-65.) The WAP proxy “allows content and applications to be hosted on standard WWW servers.” (EX-1013, 14.) For example, when a user of a WAP-enabled terminal enters a URL, the WAP-enabled terminal transmits a wireless Internet service request to the	Use of WAP teaches or at least suggests that selection of a specific portal from the main PagerWorld screen constitutes selecting a web-based action. WAP is “based on the WWW communication protocols” and “WWW content formats.” (WAP Architecture, 13.) WAP “enables the supplying of advanced Internet services into digital mobile stations of wireless communication networks.” (Salmi, 6:63-65.) The WAP proxy “allows content and applications to be hosted on standard WWW servers.” (WAP Architecture, 14.) For example, when a user of a WAP-enabled terminal enters a URL, the WAP-enabled terminal transmits a wireless Internet service request to the WAP

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	WAP gateway server. (<i>See, e.g.,</i> EX-1027, 1:66-2:4.) The WAP gateway may respond to the request if hosting the request web page or may convert the request into an HTTP request for a server on the Internet. (<i>See, e.g.,</i> EX-1027, 2:5-10.) The Internet web server responds and the WAP gateway converts the HTTP response into a WAP response for transmission to the WAP-enabled terminal. (<i>See, e.g.,</i> EX-1027, 2:15-25.) Thus, where PagerWorld is implementing in a WAP environment, a POSITA would understand that selecting a specific portal from the main PagerWorld screen constitutes a web-based activity. (EX-1003, ¶216.) 542 Petition, pp. 78-79	gateway server. (<i>See, e.g.,</i> Park, 1:66-2:4.) The WAP gateway may respond to the request if hosting the request web page or may convert the request into an HTTP request for a server on the Internet. (<i>See, e.g.,</i> Park, 2:5-10.) The Internet web server responds and the WAP gateway converts the HTTP response into a WAP response for transmission to the WAP-enabled terminal. (<i>See, e.g.,</i> Park, 2:15-25.) Thus, where PagerWorld is implemented in a WAP environment, a POSITA would understand that selecting a specific portal from the main PagerWorld screen constitutes a web-based activity. Ex. 1003, ¶ 216
41	The “<i>first and second device-captured data</i>” is provided to the server for integration into the “web-based shared information channel.” When a message is forwarded to a recipient, the header information remains in the forwarded GSM-SMS message. This is again reflected in Eck’s Figure 8C (below-left) and Figure 8D (below-right). Figure 8C provides a list of unopened message and “[s]electing a message takes the user to a Read Message screen” shown in Figure 8D. (EX-1008, 11:26-32.) As shown in this figure, the message received at the user’s device includes the captured content and the determined information. (EX-1003, ¶219.)	The “<i>first and second device-captured data</i>” is provided to the server for integration into the “web-based shared information channel.” When a message is forwarded to a recipient, the header information remains in the forwarded GSM-SMS message. This is again reflected in Eck’s Figure 8C (below-left) and Figure 8D (below-right). Figure 8C provides a list of unopened message and “[s]electing a message takes the user to a Read Message screen” shown in Figure 8D. (Eck, 11:26-32.) As shown in this figure, the message received at the user’s device includes the captured content and the determined information.

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	[image omitted] Eck, Figure 8C (left), Figure 8D (right) As with Forums in Ground 1, PagerWorld is a “<i>personalized content application</i>” consistent with the PO’s allegations in its Infringement Contentions (EX-1029, 14), because a user manages his or her profile and can personalize his or her experience in a number of ways. The messaging service client (PagerWorld client program) “provides the user with an opportunity to create a user profile that is stored in memory of network server 14.” (EX-1007, 7:9-11.) The users may be “provided with the capability of including in their profiles customized faces (images) made up of various user-selected features” or “digital images of their own faces” to “enhance the ‘persona’ of the user.” (EX-1007, 7:20-27.) “Players are represented in PagerWorld by a ‘persona character’ ... that all other PagerWorld players will see.” (EX-1008, 10:23-25.) The “persona character” can be “customize[d] ... using image data obtained with a digital camera cartridge.” (EX-1008, 12:38-40.) In addition to including the persona character in messages, players “walk their persona characters in a world featuring attractions and sideshows.” (EX-1008, 10:38-40, 13:29-31 (during	[image omitted] Eck, Figure 8C (left), Figure 8D (right) As with Forums in Ground 1, PagerWorld is a “<i>personalized content application</i>” because a user manages his or her profile and can personalize his or her experience in a number of ways. The messaging service client (PagerWorld client program) “provides the user with an opportunity to create a user profile that is stored in memory of network server 14.” (Pelkey, 7:9-11.) The users may be “provided with the capability of including in their profiles customized faces (images) made up of various user-selected features” or “digital images of their own faces” to “enhance the ‘persona’ of the user.” (Pelkey, 7:20-27.) “Players are represented in PagerWorld by a ‘persona character’ ... that all other PagerWorld players will see.” (Eck, 10:23-25.) The “persona character” can be “customize[d] using image data obtained with a digital camera cartridge.” (Eck, 12:38-40.) In addition to including the persona character in messages, in the PagerWorld game universe, players “walk their persona characters in a world featuring attractions and sideshows.” (Eck, 10:38-40, 13:29-31

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	game play “the player may control his/her persona character to fight, flee or use some item in the player’s possession”).) The “main PagerWorld screen 200,” illustrated in Figure 7 (below-left), is “the starting point for every user session.” (EX-1008, 10:57-60, 10:62-66.) The main screen presents the user’s persona character, shown in Figure 8A as the character Mario, from the Mario Bros Nintendo game. (<i>See</i> Eck, 10:60-61.) The main screen also includes a set of icons including a book (“Pager Lingo”), an unopened envelope (“Message Center”), a globe (“PagerWorld”), and a face (“My Persona”). (EX-1008, 11:2-7.) 542 Petition, pp. 79-82	(during game play “the player may control his/her persona character to fight, flee or use some item in the player’s possession”).) The “main PagerWorld screen 200,” illustrated in Figure 7 (below-left), is “the starting point for every user session.” (Eck, 10:57-60.) Figure 8A is “an illustrative, but non-limiting, implementation of the main screen 200.” (Eck, 10:65-66.) The main screen presents the user’s persona character, shown in Figure 8A as the character Mario, from the Mario Bros Nintendo game. (<i>See</i> Eck, 10:60-61.) The main screen also includes a set of icons including a book (“Pager Lingo”), an unopened envelope (“Message Center”), a globe (“PagerWorld”), and a face (“My Persona”). (Eck, 11:2-7.) Ex. 1003, ¶¶ 219-223
42	PagerWorld users likewise have access to a personalized address book/ buddy list. The address book “provides a listing of other users by their handles. Next to each handle is the persona character of the other user as it appeared on his/her last communication with the user.” (EX-1008, 12:16-19.) In the address book in the Pelkey-Eck combination, “device captured data” from first and second mobile devices (e.g., photos) is integrated into a web-based shared information channel (PagerWorld) through, e.g., customization of a user’s	PagerWorld users likewise have access to a personalized address book. The address book “provides a listing of other users by their handles. Next to each handle is the persona character of the other user as it appeared on his/her last communication with the user.” (Eck, 12:16-19.) In the address book in the Pelkey-Eck combination, “device captured data” from first and second mobile devices (e.g., photos) is integrated into a web-based shared information channel (PagerWorld) through, e.g., customization of a user’s

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	persona, and such images made accessible to users in an address book. 542 Petition, p. 85	persona, and such images made accessible to users in an address book. Ex. 1003, ¶ 230
43	For example, Figure 1B in Pelkey discloses an embodiment that includes a “Messaging Service Server” 18 and a “Network Server” 14 that communicate over the internet (depicted as “WAN” 16). The “Message Service Server” and “Network Server” together comprise a “<i>plurality of servers.</i>” [image omitted] Pelkey, Figure 1B According to Pelkey, in the Figure 1B embodiment, the “network server” “stores games that may be played by users of the network. These games may be one player games or multi-player games. The multi-player games may involve competition between two or more users or may involve competition between a user and a server-generated opponent.” (EX-1007, 3:4-9.) In such an embodiment, the processing steps set forth in claim 9 are each performed by the “messaging service server.” (EX-1003, ¶234.) 542 Petition, pp. 86-87	For example, Figure 1B in Pelkey discloses an embodiment that includes a “Messaging Service Server” 18 and a “Network Server” 14 that communicate over the internet (depicted as “WAN” 16). The “Message Service Server” and “Network Server” together comprise a “<i>plurality of servers.</i>” [image omitted] Pelkey, Figure 1B According to Pelkey, in the embodiment in Figure 1B, the “network server” “stores games that may be played by users of the network. These games may be one player games or multi-player games. The multi-player games may involve competition between two or more users or may involve competition between a user and a server-generated opponent.” (Pelkey, 3:4-9.) In such an embodiment, the processing steps set forth in claim 9 are each performed by the “messaging service server.” Ex. 1003, ¶¶ 233-234
44	The Pelkey-Eck combination also discloses that the “<i>first and second mobile devices</i>” comprise “<i>a portable game player.</i>” In both Pelkey and Eck, the first and second mobile devices are	The combination of Pelkey and Eck also discloses that the “<i>first and second mobile devices comprises a portable game player.</i>” In both Pelkey and Eck, the first and second mobile

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	“portable game machines,” such as the Nintendo GameBoy® device which is a portable game player. (EX-1007, 4:55-57.) (EX-1008, 1:48-51.) (EX-1003, ¶237-39.) 542 Petition, p. 88	devices are “portable game machines,” such as the Nintendo GameBoy® device which is a portable game player. (Pelkey, 4:55-57.) (Eck, 1:48-51.) Ex. 1003, ¶ 239
45	Pelkey explains that the communication circuits 12 “may be provided internally to the game system or embodied as cartridges ... removably attachable to a port or bay of the game systems.” (EX-1007, 2:65-3:2.) Eck discloses the embodiment of a network interface in a cartridge. As shown in Eck’s Figure 5A, the pager cartridge includes “an antenna 130 connected to a conventional radio section 132 for receiving and sending messages.” (EX-1008, 6:34-36; <i>see also</i> Eck, 7:36-53 (describing a pager cartridge includes a codec/DSP section, bandpass filter, RF mixer and dual PLL section, crystal, transmitter, receiver and antenna).) The radio section and/or antenna is a “<i>network interface</i>.” (EX-1003, ¶240-43.) 542 Petition, p. 90	Pelkey explains that the communication circuits 12 “may be provided internally to the game system or embodied as cartridges ... removably attachable to a port or bay of the game systems.” (Pelkey, 2:65-3:2.) Eck discloses the embodiment of a network interface in a cartridge. As shown in Eck’s Figure 5A, the pager cartridge includes “an antenna 130 connected to a conventional radio section 132 for receiving and sending messages.” (Eck, 6:34-36; <i>see also</i> Eck, 7:36-53 (describing a pager cartridge includes a codec/DSP section, bandpass filter, RF mixer and dual PLL section, crystal, transmitter, receiver and antenna).) The radio section and/or antenna is a “<i>network interface</i>.” Ex. 1003, ¶ 243
46	PagerWorld includes client software in the portable game machine (client program) and corresponding software in the server (server program). (<i>See</i> EX-1008, 4:61-5:7, 9:40-59.) As such, PagerWorld is “<i>persistent</i>”—it remains in existence after individual users exit the world. In addition, as noted above, PagerWorld users have access to a File	PagerWorld includes client software in the portable game machine (client program) and corresponding software in the server (server program). (<i>See</i> Eck, 4:61-5:7, 9:40-59.) As such, PagerWorld is “<i>persistent</i>”—it remains in existence after individual users exit the world. In addition, as noted above, PagerWorld users have

	‘542 Petition	Houh Decl. (Ex. 1003)
	Cabinet which “ displays a list of saved messages. In some implementations, the saved messages may be organized by topic” (EX-1008, 11:66-12:3) as shown in Figure 8E. The sent and received message and sender persona (e.g., when customized using a photo) are examples of and comprise a “<i>given set of shared information content</i>” that is available in the file cabinet to “first and second users of the respective first and second mobile devices.” (EX-1003, ¶248-49.) [image omitted] Eck, Figure 8E 542 Petition, pp. 91-92	access to a File Cabinet which “ displays a list of saved messages. In some implementations, the saved messages may be organized by topic” (Eck, 11:66-12:3) as shown in Figure 8E. The sent and received message and sender persona (e.g., when customized using a photo) are examples of and comprise a “<i>given set of shared information content</i>” that is available in the file cabinet to “first and second users of the respective first and second mobile devices.” [image omitted] Eck, Figure 8E Ex. 1003, ¶ 249
47	As noted above, Pelkey does not disclose details of the wireless network used to provide wireless messaging from the game system to the server. But Eck explicitly discloses that its “present invention” may be “applied to other wireless technologies such as GSM ... and WAP ...” (EX-1008, 25:17-20.) A POSITA would have been motivated to use either GSM or WAP for the messaging service, rather than paging, to obtain the enhanced features of those protocols. Based on Eck’s disclosure, a POSITA would have understood that the portable game machine communicates with the server via messaging available via the GSM network (e.g., SMS) or messaging available via WAP.	As noted above, Pelkey does not disclose details of the wireless network used to provide wireless messaging from the game system to the server. While Eck mentions use of a paging network for this functionality, Eck also explicitly discloses that its “present invention” may be “applied to other wireless technologies such a GSM (Global System for Mobile Communications) and WAP (Wireless Application Protocol).” (Eck, 25:17-20.) A POSITA would have been motivated to use either GSM or WAP for the messaging service, rather than paging, to obtain the enhanced features of those protocols. Based on Eck’s disclosure, a POSITA would have understood that the portable game machine communicates with the server

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	GSM-SMS is implementable over a “<i>wireless network</i>” and, as shown in Figure 1 of Pelkey, the GSM network is separate from the Internet connecting the N64 game system to the server. The WAP protocol stack transports data over GSM’s SMS. (EX-1003, ¶¶52-60.) As discussed in that section, the SMS message includes a header with data fields indicating control and content details for the message. (EX-1003, ¶214.) Thus, to send a message, the portable game machine determines this information to construct the GSM-SMS message. Figure 8C from Eck confirms that this information is determined. Specifically, this figure depicts the Message Center user interface screen presented to the player which shows a list of unread received messages with each message including the sending user’s name and associated persona image. (EX-1003, ¶250-53.) [image omitted] Eck, Figure 8C 542 Petition, pp. 92-94	via messaging available via the GSM network (e.g., SMS) or messaging available via WAP. GSM-SMS is implementable over a “<i>wireless network</i>” and as shown in my modified Figure 1 of Pelkey, the GSM network is separate from the Internet connecting the N64 game system to the server. As I discussed in §IV.A.1.c.ii, the WAP protocol stack transports data over GSM’s SMS. I provided an overview of a mobile originated message in SMS in a GSM network in my analysis of this limitation in Ground 1. As discussed in that section, the SMS message includes a header with data fields indicating control and content details for the message. Thus, to send a message, the portable game machine determines this information to construct the GSM-SMS message. Figure 8C from Eck confirms that this information is determined. Specifically, this figure depicts the Message Center user interface screen presented to the player which shows a list of unread received messages with each message including the sending user’s name and associated persona image. [image omitted] Eck, Figure 8C Ex. 1003, ¶¶ 251-253