

Summary of verbatim (or nearly verbatim) matches between the ‘543 Petition to Meta’s Petition in the Meta-MDT-IPRs (Ex.2034)

	Petition in the ‘543 IPR by Petitioners	Meta’s Petition in the Meta-MDT- IPRs
1	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. 543 IPR Petition, p.4	A person of ordinary skill would have possessed 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. (EX1002, ¶¶14-18.) Ex.2034, pp.5-6
2	The challenged claims attempt to lay claim to techniques for allowing users to share information over the Internet with other users via mobile devices. But these techniques were well-known before the ’578 patent. All grounds rely on Neibauer (EX-1003), which describes features of Yahoo!. (EX-1002, ¶49.) Neibauer describes a feature called Yahoo! Clubs that allows users to create web-based communities for users to share information through photo sharing and other features. (EX-1002, ¶50; Neibauer, pp.477-480.) Neibauer also discloses the ability to access Yahoo! services via mobile devices. (EX-1002, ¶61; Neibauer, pp.166-174.) Neibauer renders obvious the majority of the claim limitations and was relied upon	The challenged claims attempt to lay claim to techniques for allowing users to share information over the Internet with other users via mobile devices. But these techniques were well-known before the ’578 patent. All grounds rely on Neibauer (EX1003), which describes features of the popular Yahoo! website and service. (EX1002, ¶¶48-50.) Neibauer discloses a feature called Yahoo! Clubs that allows users to create web-based communities for users to share information through photo sharing and other features. (EX1002, ¶¶51-52, 88-89; Neibauer, pp.477-480.) Neibauer also discloses the ability to access Yahoo! services via mobile devices such as cell phones. (EX1002, ¶¶56, 105; Neibauer, pp.166-174.) Neibauer is a strong reference that

by the PTO in a reexamination that rejected all claims of an earlier patent in the same family as the '578 patent. (EX-1024, 4.) All grounds also cite to Cheng (EX-1005), which additionally demonstrates it would have been obvious to provide the Yahoo! Clubs features from Neibauer to users via mobile devices. (EX-1002, ¶¶89-90.) Cheng describes a proxy server that can convert any existing (non-mobile) webpage for use on a mobile device. (EX-1002, ¶¶67-68.) Cheng was also cited in the earlier reexamination mentioned above. (EX-1024, 04.) All grounds also cite to Squibbs (EX-1011) for location-based features of the challenged claims. Squibbs discloses a technique for displaying a photo album by showing, on an electronic map, the location of where the photo was taken based on location information provided with the photo. (EX-1002, ¶¶80-87; Squibbs, Figs. 6-7.) Ausems (EX-1006) is cited for the unremarkable proposition that a mobile device can obtain image data from a digital camera. (EX-1002, ¶¶76-77.) Ground 2 is substantially similar to Ground 1, but adds Harvey (EX-1010), solely to account for a potential construction of “<i>application-based information channel</i>” proposed by Meta in the MDT-Meta-Litigation. If the Board chooses not to adopt that	discloses and renders obvious the majority of the claim limitations and, as observed in Part III.C above, was relied upon by the PTO in rejecting all claims of a parent patent to which the '578 patent has been terminally disclaimed. All grounds also cite to Cheng (EX1005), which provides an additional basis for showing that it would have been obvious to provide the Yahoo! Clubs features from Neibauer to users via mobile devices. (EX1002, ¶¶61-62.) Cheng describes a proxy server that can convert any existing (non-mobile) webpage for use on a mobile device. (EX1002, ¶¶59-63, 102-103.) As noted in Part III.C above, Cheng was also cited in the successful reexamination of the earlier '801 patent. All grounds also cite to Squibbs (EX1011), for location-based features of the challenged claims. Squibbs discloses a technique for displaying a photo album by showing, on an electronic map, the location of where the photo was taken based on location information provided with the photo. (EX1002, ¶¶69-76; Squibbs, Figs. 6-7.) Ausems (EX1006) is cited for the unremarkable proposition that a mobile device can obtain image data from a digital camera. (EX1002, ¶¶78-80.) Ground 2 is substantially similar to Ground 1, but adds Harvey (EX1010), solely to account for a potential construction of “application-based information channel” proposed by Petitioner in the pending litigation. If the Board chooses not to adopt that
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	construction here, it need not consider this ground. 543 IPR Petition, pp.9-11	construction here, it need not consider this ground. Ex.2034, pp.9-10
3	VI. Ground 1: Claims 1-19, 21-22 Are Obvious Over Neibauer in View of Cheng, Ausems, and Squibbs. A. Independent Claim 1 Neibauer discloses features of a Yahoo! service known as Yahoo! Clubs. (Neibauer, pp.473-483.) Neibauer explains that “[a] <i>club</i> is a group of Yahoo! members who share a common interest. Each club has its own message board, chat room, as well as places to share photographs, news, addresses, and links.” (Neubauer, p.473 (italics in original).) Yahoo! members could also create their own clubs. (Neibauer, pp.480-82.) An exemplary club created by a member is shown in Figure 21-13: [image omitted] (Neibauer, p.483, Fig. 21-13.) 1. Preamble [1P] To the extent the preamble is limiting, Neibauer discloses a “<i>method</i>.” As described in detail below, Neibauer discloses a method for managing information content because a club founder can manage the information on a club. (Neibauer, pp.478-480; EX-1002, ¶¶120-22.) 543 IPR Petition, pp.11-12	C. Ground 1: Claims 1-19, 21-22 Are Obvious Over Neibauer In View Of Ausems, Cheng and Squibbs. 1. Independent Claim 1 As detailed below, Neibauer discloses features of a Yahoo! service known as Yahoo! Clubs. (Neibauer, pp.473-483.) Neibauer explains that “[a] <i>club</i> is a group of Yahoo! members who share a common interest. Each club has its own message board, chat room, as well as places to share photographs, news, addresses, and links.” (Neubauer, p.473 (italics in original).) Yahoo! members could also create their own clubs. (Neibauer, pp.480-82.) An exemplary club is shown in Figure 21-13: [image omitted] (Neibauer, p.483, Fig. 21-13.) As described in detail below, Neibauer discloses a method for managing information content because a club founder can manage the information on a club such as messages and photos shared with other members of the club. (Neibauer, pp.478-480.) Ex.2034, pp.11-12

4	Neibauer explains that clubs can have various features including a club message board, chat room, photo sharing feature, among others. (Neibauer, p.473.) For purposes of claim 1, Petitioners will focus on the club photo sharing feature described in Neibauer. The step of “<i>providing a first interface</i>” takes place in Neibauer when a web-based interface is provided to a club member to select a photo to upload and share with other club members. (Neibauer, p.477; EX-1002, ¶125.) 543 IPR Petition, p.13	As noted, Neibauer explains that clubs can have various features including a club message board, chat room, photo sharing feature, among others. (Neibauer, p.473.) For purposes of claim 1, Petitioner will focus on the club photo sharing feature described in Neibauer. The step of “providing a first interface” takes place in Neibauer when a web-based interface is provided to a club member to select a photo to upload and share with other club members. Ex.2034, p.12
5	To add a photograph to an album, the user identifies the location of the photo and enters a name and description of the photo that will be uploaded. (Neibauer, p.478, ¶¶2-3.) More specifically, the “<i>first interface</i>” corresponds to the web-based user interface that allows a club member to select a photo file to upload and share with other club members. As explained in Neibauer: [block quote omitted] (Neibauer, pp.477-478; <i>see also</i> Neibauer pp.477-478 (showing clickable “Add Photo” option available on album pages).) 543 IPR Petition, pp.13-14	In order to add a photograph to an album, the user identifies the location of the photo and enters a name and description of the photo that will be uploaded. (Neibauer, p.478, ¶¶2-3.) More specifically, the claimed “first interface” corresponds to the web-based user interface that allows a club member to select a photo file to upload and share with other club members. As explained in Neibauer: [block quote omitted] (Neibauer, pp.477-478; <i>see also</i> pp.477-478 (showing clickable “Add Photo” option available on album pages).) Ex.2034, pp.13-14
6	The term “application” is generally understood by a POSITA as referring to	The term “application” is generally understood by skilled artisans as

a computer software program for performing a particular function. (EX-1002, ¶127; <i>see also Microsoft Computer Dictionary</i> (5th ed. 2002) (EX-1021), p.31 (“application <i>n.</i> A program designed to assist in the performance of a specific task, such as word processing, accounting, or inventory management.”) (bold and italics in original).) This is also consistent with how “application” is used in the patent. (EX-1001, 18:60-64 (“Also, the system provides a platform for the development of a wide variety of personalized content applications for users of mobile devices....”).) The ’578 patent also discloses use of a browser on the mobile device to access shared content. (EX-1001, 13:21-24 (“The mobile site home page 400 may be accessed, for example, by entering a corresponding URL of the mobile site into a browser at one of the mobile devices 15.”).) Accordingly, the club photo sharing information channel in Neibauer is “<i>application-based</i>” because it is provided using software programs running on at least the server that provides the club functionality in Neibauer, and using at least a web browser application running on the mobile device of the club member, which allows the club member to interact with and use that feature. (EX-1002, ¶127.) “Via a Mobile Device”: Limitation [1A] further requires that designation of the content item occur “<i>via a mobile device</i>.” It would have been obvious to	referring to a computer software program for performing a particular function. (EX1002, ¶93; <i>see also Microsoft Computer Dictionary</i> (5th ed. 2002) (EX1021), p.31 (“application <i>n.</i> A program designed to assist in the performance of a specific task, such as word processing, accounting, or inventory management.”) (bold and italics in original).) This is also consistent with how “application” is used in the patent. (’578, 18:60-64 (“Also, the system provides a platform for the development of a wide variety of personalized content applications for users of mobile devices....”).) The ’578 patent also discloses use of a browser on the mobile device to access shared content. (’578, 13:21-24 (“The mobile site home page 400 may be accessed, for example, by entering a corresponding URL of the mobile site into a browser at one of the mobile devices 15.”).) Accordingly, the club photo sharing information channel in Neibauer is “application-based” because it is provided using software programs running on at least the server that provides the club functionality in Neibauer, and using at least a web browser application running on the mobile device of the club member, which allows the club member to interact with and use that feature. (EX1002, ¶¶92-93.) Limitation 1 [a] further requires that designation of the at least one content item occur “via a mobile device.” It would have been obvious that the club
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	adapt Neibauer’s club photo sharing feature to allow a club member to designate a photo via a mobile device. The ’578 patent defines a “mobile device” as including, among other things, a laptop computer. (EX-1001, 4:45-55.) It was well-known that conventional laptop computers provided the same functionality as desktop computers and could run web browser software and visit web pages on the Internet. (EX-1002, ¶128.) It therefore would have been obvious that the Yahoo! website, including the club photo sharing feature discussed above, would have been accessible to a user of a mobile device such as a laptop computer. (<i>Id.</i>) 543 IPR Petition, pp.14-16	photo sharing feature would have been adapted to allow a club member to designate a photo via a mobile device. The ’578 patent itself expressly defines a “mobile device” as including, among other things, a laptop computer. (’578, 4:45-55.) It was well-known that conventional laptop computers provided the same functionality as desktop computers and could run web browser software and visit web pages on the Internet. (EX1002, ¶95.) It therefore would have been obvious that the Yahoo! website, including the club photo sharing feature discussed above, would have been accessible to a user of a mobile device such as a laptop computer. (<i>Id.</i>) Ex.2034, pp.15-16
7	Meta further argues “<i>content management site</i>” within this construction means “a web site that allows a user without programming to create and manage content on a mobile web site, or a portion thereof.” (EX-1025, 3.) These constructions are also satisfied by the proposed combination because, as discussed above, Neibauer discloses a web-based user interface for creating a club that provides a virtual location at a content management website, i.e., the portions of the Yahoo! website for club creation and management that allow a club founder to create and manage content for the club. (EX-1002, ¶138; Neibauer, 480-82.) It would have been obvious the content management site in	Petitioner has further argued that “<i>content management site</i>” within this construction means “<i>a web site that allows a user without programming to create and manage content on a mobile web site, or a portion thereof.</i>” (EX1025, at 3.) These constructions are also satisfied by the proposed combination because, as discussed above, Neibauer discloses a web-based user interface for creating a club that provides a virtual location at a content management website, i.e., the portions of the Yahoo! website for club creation and management that allow a club founder to create and manage content for the club. (Neibauer, pp.480-82.) It would have been obvious that the content management site in Neibauer would have further allowed the club founder to add

	Neibauer would have further allowed the club founder to add user-authored content to the club. (Neibauer, 480-482 (describing how to create clubs and add content such as club name and photo); EX-1002, ¶138) This content would also have been made available on a “mobile web site, or a portion thereof,” i.e., the club webpages delivered to mobile devices, under Neibauer alone or in view of Cheng. (EX-1002, ¶138.) Petitioners have also provided separate Ground 2 below, adding the Harvey reference (EX-1010) to address Meta’s proposed construction of “<i>application-based information channel</i>,” in the event it is adopted for purposes of this IPR and the prior art for Ground 1 is somehow found insufficient on this point. 543 IPR Petition, pp.16-17	user-authored content to the club. (Neibauer, pp.480-482 (describing how to create clubs and add content such as club name and photo); EX1002, ¶119.) This content would also have been made available on a “<i>mobile web site, or a portion thereof</i>,” i.e., the club webpages delivered to mobile devices, under Neibauer alone or in view of Cheng. Petitioner has also provided a separate Ground 2 below, which adds the Harvey reference (EX1010), to address Petitioner’s proposed construction of application-based information channel, in the event it is adopted for purposes of this IPR and the prior art for Ground 1 is somehow found insufficient on this point. Ex.2034, p.27
8	Additionally, Cheng relies on an already-known technology known as “proxy servers,” which were commonly used to provide security and interoperability between devices. (EX-1002, ¶71.) Cheng relies on this proxy server concept to convert non-mobile webpages into a format accessible by mobile devices. Figure 1 illustrates one embodiment: [image omitted] Figure 1 above shows an origin web server 102 that contains original web page 104. (Cheng, 3:36-37.) “The web page 104 is typically an HTML file with references to any component .wav,	Cheng relies on an established technology known as “proxy servers,” which were commonly used to provide security and interoperability between devices. (EX1002, ¶63.) Cheng relies on this proxy server concept to convert non-mobile webpages into a format accessible by mobile devices. Figure 1 illustrates one embodiment: [image omitted] (Cheng, Fig. 1 (color annotation added).) The right side of Figure 1 above shows an origin web server 102 that contains original web page 104. (Cheng, 3:36-37.) “The web page 104 is typically an

.mov, and/or Joint Photographic Experts Group (JPEG) files, which together comprise the web page 104.” (Cheng, 4:10-13.) “It is envisioned that each instance of web content 104 each have associated therewith a URL.” (Cheng, 3:56-57.) Web page 104 could have been any web page in HTML format reachable via the Internet, such as any web page from the Yahoo! website as described in Neibauer. (EX-1002, ¶¶131.) Figure 1 further shows a mobile device 108 connected to proxy server 110, optionally through gateway 109. (Cheng, 3:33-36.) “Mobile devices 108 generally come in a variety of different sizes and have a variety of different screen interfaces... [T]he present invention provides the ability to uniquely tailor web page 104 content for specific mobile devices 108.” (Cheng, 5:11-15.) Cheng explains that, in one example, mobile device 108 could be a mobile device with a Palm operating system that includes a web browser. (Cheng, 5:17-23, 2:8-15.) The middle of Figure 1 shows proxy server 110—Cheng’s key feature. Proxy server 110 “‘sits’ between the clients (e.g., the mobile device(s) 108) and the origin web server(s) 102 that provide Web content 104.” (Cheng, 3:31-33.) Proxy server 110 “obtains the code (e.g., HTML) of the user requested web page 104, and modifies it at the proxy server 110 (once obtained),” which can include	HTML file with references to any component .wav, .mov, and/or Joint Photographic Experts Group (JPEG) files, which together comprise the web page 104.” (Cheng, 4:10-13.) “It is envisioned that each instance of web content 104 each have associated therewith a URL.” (Cheng, 3:56-57.) Web page 104 in Cheng could have been any web page in HTML format reachable via the Internet, such as any web page from the Yahoo! website as described in Neibauer. (EX1002, ¶103.) The left shows a mobile device 108 connected to proxy server 110, optionally through gateway 109. (Cheng, 3:33-36.) “Mobile devices 108 generally come in a variety of different sizes and have a variety of different screen interfaces... [T]he present invention provides the ability to uniquely tailor web page 104 content for specific mobile devices 108.” (Cheng, 5:11-15.) Cheng explains that, in one example, mobile device 108 could be a mobile device with a Palm operating system that includes a web browser. (Cheng, 5:17-23, 2:8-15.) The middle of Figure 1 shows proxy server 110 – the key feature of Cheng here. Proxy server 110 “‘sits’ between the clients (e.g., the mobile device(s) 108) and the origin web server(s) 102 that provide Web content 104.” (Cheng, 3:31-33.) Cheng explains that proxy server 110 “obtains the code (e.g., HTML) of the user requested web page 104, and modifies it at the proxy server
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“reformatting and/or converting an entire web site or request specific Web content that is needed from the origin web server 102.” (Cheng, 3:41-48.) Proxy server 110 can also store a device profile for mobile device 108 based on the device and web browser types. (Cheng, 5:20-23.) The general operation of proxy server 110 in Cheng is straightforward. As shown in Figure 1, mobile device 108 can issue a request 106 for an original web page 104 using standard HyperText Transport Protocol (HTTP), as was well-known in the art, with the request 106 being received by proxy server 110. (Cheng, Fig. 1, 2:19-21, 3:58-67, 7:65-8:2; EX-1002, ¶73.) “Upon determining that the requested page 104 resides at the server 102, the proxy server 110 makes a request 112 for the page. As shown, the proxy server 110 and the server 102 are connected via a network 114 such as the Internet.” (Cheng, 3:65-4:2; <i>see also id.</i>, 2:21-24.) Proxy server 110 then converts and/or reformats original web page 104 into reformatted web page 122, which is transmitted to mobile device 108. (Cheng, 2:24-29, 5:46-49, 4:56-60.) “The designated HTML content of the retrieved web page 104 is extracted, subsequently and/or converted, and transmitted as a reformatted web page 122 to the mobile device 108.” (Cheng, 5:46-49; <i>see also id.</i>, 3:22-26.)	110 (once obtained),” which can include “reformatting and/or converting an entire web site or request specific Web content that is needed from the origin web server 102.” (Cheng, 3:41-48.) Proxy server 110 can also store a device profile for mobile device 108 based on the device and web browser types. (Cheng, 5:20-23.) The general operation of proxy server 110 in Cheng is straightforward. As shown in Figure 1, mobile device 108 can issue a request 106 for an original web page 104 using standard HyperText Transport Protocol (HTTP), as was well-known in the art, with the request 106 being received by proxy server 110. (Cheng, Fig. 1, 2:19-21, 3:58-67, 7:65-8:2; EX1002, ¶¶65, 100.) “Upon determining that the requested page 104 resides at the server 102, the proxy server 110 makes a request 112 for the page. As shown, the proxy server 110 and the server 102 are connected via a network 114 such as the Internet.” (Cheng, 3:65-4:2; <i>see also id.</i>, 2:21-24.) Proxy server 110 then converts and/or reformats original web page 104 into reformatted web page 122 (shown in Figure 1), which is transmitted to mobile device 108. (Cheng, <i>e.g.</i>, 2:24-29, 5:46-49, 4:56-60.) “The designated HTML content of the retrieved web page 104 is extracted, subsequently and/or converted, and transmitted as a reformatted web page 122 to the mobile device 108.” (Cheng, 5:46-49; <i>see also id.</i>, 3:22-26.)
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	543 IPR Petition, pp.19-21	Ex.2034, pp.17-20
9	Motivation to Combine Neibauer and Cheng: It would have been obvious to combine Neibauer with Cheng, predictably resulting in the club features relied upon in Neibauer being made available to mobile devices over the Internet. Under the combination, client-side users would interface with the server via Cheng’s proxy server, ensuring that photos downloaded to mobile devices, such as a smartphone, are properly formatted. (EX-1002, ¶90.) The proposed combination would have been straightforward as Cheng provides “bolt-on” functionality, with the proxy server capable of converting and reformatting any existing HTML-based web page into a format suitable for display on a mobile device. (EX-1002, ¶91; Cheng, <i>e.g.</i>, 2:30-32 (“The [reformatting] may be done for at least one of groups of devices, individual devices, web site-specific conversions, or for all web sites.”).) It would have been obvious that proxy server 110 could have been operated by the same or a different entity from the operator of the origin web server 102. (EX-1002, ¶91.) In any case, combining Neibauer and Cheng would not have required changing the underlying functionality in Neibauer, further motivating the combination as discussed below. (EX-1002, ¶93.)	<i>Rationale and Motivation to Combine (Neibauer with Cheng):</i> It would have been obvious to combine Neibauer with Cheng, predictably resulting in the club features relied upon in Neibauer being made available to mobile devices over the Internet. Under the proposed combination, the web pages in Neibauer relied upon for claim 1, including the first interface for adding a photo to a club photo album, would have been converted and delivered to a mobile device using the techniques in Cheng. (EX1002, ¶102.) The proposed combination would have been exceedingly straightforward as Cheng provides “bolt-on” functionality, with the proxy server capable of converting and reformatting any existing HTML-based web page into a format suitable for display on a mobile device. (EX1002, ¶¶103, 107-108; Cheng, <i>e.g.</i>, 2:30-32 (“The [reformatting] may be done for at least one of groups of devices, individual devices, web site-specific conversions, or for all web sites.”).) It would have been obvious that proxy server 110, under the proposed combination, could have been operated by the same or a different entity from the operator of the origin web server 102. (EX1002, ¶103.) In any case, the proposed combination would not have required changing the underlying functionality in Neibauer – a feature that provides a further motivation to combine

Neibauer is in the same field as the '578 patent—network-based communication systems for managing information content—and would have been reasonably pertinent to problems facing the inventors. (EX-1002, ¶94.) Cheng is also in the same field and would have been reasonably pertinent to several problems facing the inventors, including making web-based information content available on mobile devices. (<i>Id.</i>) A POSITA would have been motivated to combine Neibauer and Cheng. Neibauer expressly motivates the combination, by disclosing services such as “Yahoo! Mobile” and “Yahoo! To Go” that enabled content from Yahoo! services to be provided to mobile devices. (Neibauer, 166-174.) A POSITA would also have been motivated to make the club features available to mobile devices to take advantage of growing popularity of such devices; indeed, Neibauer expressly discusses the use of browser-enabled PDAs, such as Palm, Windows CE and smartphone devices. (EX-1002, ¶¶61, 95-97; Neibauer, 171-174.) Cheng further explains “users of wireless devices now demand that businesses deliver web content for viewing on desktop, or mobile/portable (e.g., handheld) devices.” (Cheng, 1:18-22.) The '578 patent itself admits “[o]ne of the most rapidly expanding aspects of wireless networking involves the accessing of information content over wireless networks via web-	as discussed below. (EX1002, ¶¶103, 107-108.) Neibauer is an analogous reference in the same field as the '578 patent of network-based communication systems for managing information content and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶104.) Cheng is also an analogous reference and would have been reasonably pertinent to several problems facing the inventors, including making web-based information content available on mobile devices. (<i>Id.</i>) An ordinarily skilled artisan would have been motivated to combine. As noted, Neibauer itself expressly suggests the proposed combination by disclosing services such as “Yahoo! Mobile” and “Yahoo! To Go” that enabled content from Yahoo! services to be provided to mobile devices. (Neibauer, pp.166-174.) A skilled artisan would also have been motivated to make the club features available to mobile devices to take advantage of growing popularity of mobile computing and mobile devices. (EX1002, ¶¶105-106.) Cheng explains that “users of wireless devices now demand that businesses deliver web content for viewing on desktop, or mobile/portable (e.g., handheld) devices.” (Cheng, 1:18-22.) The '578 patent itself admits that “[o]ne of the most rapidly expanding aspects of wireless networking involves the accessing of information content over wireless networks via web-enabled
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	enabled mobile devices,” such as “mobile telephones, personal digital assistants (PDAs), palmtop computers, etc.” (EX-1001, 1:32-36.) Market forces would thus have motivated a POSITA to combine Neibauer with Cheng in order to provide the club functionalities to users of mobile devices. (EX-1002, ¶¶98-100.) Cheng further motivates the combination, explaining the proxy server conversion method provides a “create-once, deliver anywhere approach” that eliminates the need to build and maintain separate web pages for different types of mobile devices and browsers. (Cheng, 2:8-19.) This would have provided a clear technological advantage by obviating the need to generate multiple different mobile versions of club-related pages. (EX-1002, ¶102.) Furthermore, Cheng’s proxy server techniques were well-known and deployed for the very purpose of converting web page content into formats suitable for mobile devices. (EX-1002, ¶¶71, 103.) A POSITA would also have had a reasonable expectation of success as Cheng relies on known and industry-standard technologies. (EX-1002, ¶¶71, 105-06.) 543 IPR Petition, pp.23-25	mobile devices,” such as “mobile telephones, personal digital assistants (PDAs), palmtop computers, etc.” (’578, 1:32-36.) Market forces would thus have motivated a skilled artisan to combine Neibauer with Cheng in order to provide the club functionalities to users of mobile devices. (EX1002, ¶106.) Cheng provides a further express motivation to combine by explaining that the proxy server conversion method provides a “create-once, deliver anywhere approach” that eliminates the need to build and maintain separate web pages for different types of mobile devices and browsers. (Cheng, 2:8-19.) This would have provided a clear technological advantage by obviating the need to generate multiple different mobile versions of club-related pages, thus simplifying the implementation. (EX1002, ¶107.) As a further motivation to combine, the proxy server techniques in Cheng were already well-known and already deployed for the very purpose of converting web page content into formats suitable for mobile devices. (EX1002, ¶108.) A skilled artisan would also have had a reasonable expectation of success as Cheng relies on known and industry-standard technologies. (EX1002, ¶109.) Ex.2034, pp.20-22
10	“Captured by the Mobile Device”: Limitation [1A] concludes by reciting that the at least one content item “<i>compris[es] media data captured by the mobile device.</i>” It would have been	“Captured by the Mobile Device”: Limitation 1 [a] concludes by reciting that the at least one content item “compris[es] media data captured by the mobile device.” It would have been

	obvious for the photo designated by a club member, under the combination of Neibauer and Cheng, to have included media data captured by the mobile device, as portable communications devices prior to June 2002 included digital cameras that allowed the devices to capture, store, and transmit digital images. (EX-1002, ¶136.) 543 IPR Petition, p.25	obvious for the photo designated by a club member, under the combination of Neibauer and Cheng, to have included media data captured by the mobile device. This is because portable communications devices prior to June 2002 included digital cameras that allowed the devices to capture, store, and transmit digital images. (EX1002, ¶110.) Ex.2034, pp.22-23
11	Should PO contend incorporation of digital cameras into mobile devices was not well-known as of June 2002, Ausems discloses a mobile device that incorporated a digital camera for recording, storing, and transmitting digital images. Ausems explains that “[t]he popularity and use of Personal Digital Assistants (PDAs) and wireless telephones has increased in recent years.... Increasingly, wireless telephones are being combined with PDAs in order to perform more advanced functions, such as transmitting, receiving and displaying text messages.” (Ausems, 1:12-30.) Ausems discloses one such mobile device combining the functionality of a PDA with a wireless telephone. (Ausems, 3:5-8.) This PDA telephone device 100 includes, among other things, a touchscreen display. (Ausems, <i>e.g.</i>, 1:57-58, 4:30-39, 6:9-14.) PDA telephone 100 in Ausems can also run a conventional mobile operating system such as Microsoft Windows CE or Palm, and the operating system “may include a web browser in order to	In the event Patent Owner were to argue that incorporation of digital cameras into mobile devices was not well-known as of June 2002, Petitioner also cites Ausems (EX1006) to show an example of a mobile communications device that, among other things, incorporated a digital camera for recording, storing, and transmitting digital images. Ausems explains, as was well-known in the art, that “[t]he popularity and use of Personal Digital Assistants (PDAs) and wireless telephones has increased in recent years. A PDA or hand-held computer is primarily a lightweight, compact productivity and communications tool that can typically be held in one hand, leaving the other free to input data with a pen type stylus or a reduced size keyboard. A PDA provides computing and information storage and retrieval capabilities for personal or business use.” (Ausems, 1:12-19.) Ausems further explains that “[i]ncreasingly, wireless telephones are being combined with PDAs in order to perform more advanced functions, such

	facilitate Internet access for a PDA telephone 100.” (Ausems, 7:64-8:5.) 543 IPR Petition, p.26	as transmitting, receiving and displaying text messages.” (Ausems, 1:27-30.) Ausems discloses a portable mobile device that combines the functionality of a PDA with a wireless telephone. (Ausems, 3:5-8.) This PDA telephone device 100 includes, among other things, a touchscreen display. (Ausems, <i>e.g.</i>, 1:57-58, 4:30-39, 6:9-14.) The PDA telephone 100 in Ausems can also run a conventional mobile operating system such as Microsoft Windows CE or Palm, and the operating system “may include a web browser in order to facilitate Internet access for a PDA telephone 100.” (Ausems, 7:64-8:5.) Ex.2034, pp.23-24
12	The device also includes digital camera 190 for recording and storing images, which can be transmitted. (Ausems, <i>e.g.</i>, 2:5-6 (“[T]he device also includes [a] digital camera for recording images....”), 5:17-22 (“Camera 190 records video images and stores them within. Additionally, video images recorded by camera 190 may also be transmitted from PDA telephone 100 in real time during a telephone call (thus allowing for video conferencing).”).) Ausems thus discloses a mobile device that includes a camera for capturing image media. (EX-1002, ¶¶77, 136.) 543 IPR Petition, pp.26-27	The device also includes a digital camera 190 for recording and storing images, which can be transmitted. (Ausems, <i>e.g.</i>, 2:5-6, 5:17-18 (“Camera 190 records video images and stores them within. Additionally, video images recorded by camera 190 may also be transmitted from PDA telephone 100 in real time during a telephone call (thus allowing for video conferencing).”), 2:5-6 (“[T]he device also includes [a] digital camera for recording images....”).) Ausems thus discloses a mobile device that includes a camera for capturing image media. Ex.2034, p.24
13	Motivation to Combine Neibauer, Cheng, and Ausems: It would have been obvious to combine Neibauer and Cheng with Ausems, predictably	<i>Rationale and Motivation to Combine (Neibauer and Cheng with Ausems):</i> It would have been obvious to combine Neibauer and Cheng with Ausems,

resulting the system under the proposed combination, further adapted such that the photo uploaded by the club member to the club photo sharing feature would have comprised “<i>media data captured by the mobile device</i>,” i.e., a photo captured by a digital camera incorporated into the mobile device. (EX-1002, ¶107.) For example, under the combination with Ausems, the club member would have obtained image data using a digital camera of the mobile device, which would have been transmitted for upload to the club for sharing with other club members using Neibauer’s photo sharing features. (EX-1002, ¶109; Neibauer, 477-478.) Ausems is in the same field as the ’578 patent of wireless and mobile communications and would have been reasonably pertinent to problems facing the inventor including how to capture media data using a mobile device and share that data with other users. (EX-1002, ¶110.) A POSITA would have been motivated to combine Neibauer, Cheng, and Ausems, as the ability to share media data captured by the mobile device would have expanded the universe of image data that the club member could share with other members. (EX-1002, ¶111.) The club member would no longer be restricted to sharing preexisting images; instead, she could capture a variety of images (via the digital camera in her mobile device)	predictably resulting the system under the proposed combination, further adapted such that the photo uploaded by the club member to the club photo sharing feature would have comprised “media data captured by the mobile device,” i.e., a photo captured by a digital camera incorporated into the mobile device. (EX1002, ¶114.) For example, under the proposed combination with Ausems, the club member would have obtained image data using a digital camera of its mobile device, which would have been transmitted for upload to the club for sharing with other club members using the photo sharing features described in Neibauer. (Neibauer, pp.477-478.) Ausems is an analogous reference in the same field of the ’578 patent of wireless and mobile communications, and would have been reasonably pertinent to problems facing the inventor including how to capture media data using a mobile device and share that data with other users. (EX1002, ¶115.) An ordinarily skilled artisan would have been motivated to combine, as the ability to share media data captured by the mobile device would have expanded the universe of image data that the club member could share with other members. (EX1002, ¶116.) This is because the club member would not be restricted to sharing preexisting images obtained from third parties; the member could instead capture a potentially infinite number and variety of its own images (via the digital camera in its
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	and share them with other club members. (<i>Id.</i>) A POSITA would have had a reasonable expectation of success. (EX-1002, ¶112.) As Ausems confirms, mobile devices with digital cameras and the ability to transmit images captured by digital cameras were already known. (<i>Id.</i>) 543 IPR Petition, pp.27-28	mobile device) and share them with other club members. (<i>Id.</i>) A skilled artisan would also have had a reasonable expectation of success. As Ausems confirms, mobile communications devices with digital cameras and the ability to transmit images captured by digital cameras were already known. (EX1002, ¶117.) Ex.2034, pp.24-25
14	The '578 patent does not define “<i>information associated with at least one wireless networking functionality of the mobile device,</i>” but provides examples. Dependent claim 6 states that the claimed information associated at least one wireless networking functionality of claim 1 can comprise, among other things, “<i>one or more messaging actions</i>” and “<i>one or more collaboration actions</i>” implementable over a wireless network, and “<i>location-based service information.</i>” These same examples are also mentioned in the specification. (EX-1001, 6:5-17.) The proposed combination discloses multiple examples of information associated with at least one wireless networking functionality that track the examples in the patent and satisfy limitation [1B]. (EX-1002, ¶149.) Messaging or Collaboration Action: The patent places few if any restrictions on messaging or collaboration actions, and makes clear they include members posting and sharing information to facilitate collaboration. (EX-1001, <i>e.g.</i>, 6:47-52	The '578 patent does not define “information associated with at least one wireless networking functionality of the mobile device,” but provides examples. Dependent claim 6 states that the claimed information associated at least one wireless networking functionality of claim 1 can comprise, among other things, “one or more messaging actions” and “one or more collaboration actions” implementable over a wireless network, and “location-based service information.” These same examples are also mentioned in the written description. ('578, 6:5-17.) The proposed combination discloses multiple examples of information associated with at least one wireless networking functionality that track the examples in the patent and satisfy limitation 1[b]. <i>Messaging or Collaboration Action:</i> The patent places few if any restrictions on messaging or collaboration actions, and makes clear they include members posting and sharing information to facilitate collaboration. ('578, <i>e.g.</i>, 6:47-52 (“For example, the site can be used to generate messages, using instant

(“For example, the site can be used to generate messages, using instant messaging (IM), SMS, MMS, pages, emails, voice-over-IP (VoIP) calls, cellular telephone calls, or any other suitable messaging format, that are sent to organization members over the wireless network.”), 6:56-59 (“Organization members can easily and efficiently post information and generate messages to other members so as to facilitate collaboration and other types of interaction.”).) As explained, new photos posted by club members are integrated into the club photo sharing feature, and as noted, each photo also includes a textual name and description of the photo. (Neibauer, pp.477-478.) This additional textual information is associated with a “messaging action” because it provides a textual message that would also have been made available to club members through the photo sharing feature. This messaging information is also similarly associated with a “collaboration action” because, for the same reason, the textual message would have allowed club members to identify the photo and collaborate on topics of interest relating to the photo in the album. (EX-1002, ¶151.) The proposed combination thus renders obvious <i>“information associated with at least one wireless networking functionality of said at least one wireless network,”</i> i.e., a messaging or collaboration action by which another one or more club	messaging (IM), SMS, MMS, pages, emails, voice-over-IP (VoIP) calls, cellular telephone calls, or any other suitable messaging format, that are sent to organization members over the wireless network.”), 6:56-59 (“Organization members can easily and efficiently post information and generate messages to other members so as to facilitate collaboration and other types of interaction.”).) As explained, new photos posted by club members are integrated into the club photo sharing feature, and as noted, each photo also includes a textual name and description of the photo. (Neibauer, pp.477-478.) This additional textual information is associated with a “messaging action” because it provides a textual message that would also have been made available to club members through the photo sharing feature. This messaging information is also similarly associated with a “collaboration action” because, for the same reason, the textual message would have allowed club members to identify the photo and collaborate on topics of interest relating to the photo in the album. (EX1002, ¶121.) The proposed combination therefore renders obvious “information associated with at least one wireless networking functionality of said at least one wireless network,” in the form of a messaging or collaboration action by which the club member, through their mobile device and over a wireless network, provided messaging content that would have been accessible to club
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members (through their mobile device and over a wireless network) provide messaging content to other club members via the club. (<i>Id.</i>) This information would have been used to “<i>generate at least one integrated content item</i>” in the form of the photo and associated textual message content placed together in integrated fashion in the album. This is shown in Figure 21-10 of Neibauer depicting a user interface displaying the integrated into a particular album: [image omitted] (Neibauer, p.478, Fig. 21-10.) Figure 21-10 above shows a partial list of photographs stored in an album. Although this shows photo messages posted by only one contributor (blueraja3), Neibauer confirms that any member of a group album can post a photo. (Neibauer, p.477 (“Any member can place a photo in a group album...”).) Under the proposed combination, therefore, when the club member posts a new photo to a selected photo album, the photo, along with its textual name and description, would have been integrated and incorporated into the photo album to which they were assigned. Neibauer therefore discloses “<i>integrating the at least one content item and information associated with at least one wireless networking functionality of the mobile device to generate at least one</i>	members. (EX1002, ¶121.) As noted previously, the mobile device would have communicated wirelessly. (Cheng, e.g., 2:4-7, 5:33 (“cellular telephone”), 23:44-51 (“... wireless communication (e.g., radio frequency (RF), and the like)”); <i>see also</i> Neibauer, p.171, ¶5 (“GSM Phone”); EX1002, ¶146.) This information would have been used to “generate at least one integrated content item,” the integrated content item taking the form of the photo and associated textual message content, shown in integrated fashion in the album. This is shown in Figure 21-10 of Neibauer depicting a user interface displaying the integrated into a particular album: [image omitted] (Neibauer, p.478, Fig. 21-10.) Figure 21-10 above shows a partial list of photographs stored in an album. Although this shows photo messages posted by only one contributor (blueraja3), Neibauer confirms that any member of a group album can post a photo. (Neibauer, p.477 (“Any member can place a photo in a group album...”).) Under the proposed combination, therefore, when the club member posts a new photo to a selected photo album, the photo, along with its textual name and description, would have been integrated and incorporated into the photo album to which they were assigned. Neibauer therefore discloses “integrating the at least one content
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	<i>integrated content item,”</i> because the new photo (“<i>content item</i>”) and textual message content (“<i>information associated with at least one wireless networking functionality of the mobile device</i>”) would have been integrated together in the album. (EX-1002, ¶¶152-53.) 543 IPR Petition, pp.28-31	item and information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item,” because the new photo (“content item”) and textual message content (“information associated with at least one wireless networking functionality of the mobile device”) would have been integrated together in the album. Ex.2034, pp.28-31
15	Squibbs describes a technique of recording and displaying data (such as photos) along with the location where the photo was taken. (Squibbs, Abstract.) Squibbs explains that digital cameras that included Global Positioning System (GPS) receivers were known in the art, as were systems that could display the location where the photo was taken on an electronic map. (Squibbs, ¶¶0003-0004.) Squibbs discloses a photo album system that allows a user to capture and record digital images, which can be associated with the physical location where they were taken. An overview of the system is shown in Figure 3: [image omitted] Squibbs, Fig. 3 As further explained in Squibbs, with reference to Figure 3: [block quote omitted]	Squibbs describes a technique of recording and displaying data (such as photos) along with the location where the photo was taken. (Squibbs, Abstract.) Squibbs explains that digital cameras that included Global Positioning System (GPS) receivers were known in the art, as were systems that displayed the location where the photo was taken on an electronic map. (Squibbs, ¶¶0003-0004.) Squibbs discloses a photo album system that allows a user to capture and record digital images, which can be associated with the physical location where they were taken. An overview of the system is shown in Figure 3: [image omitted] (Squibbs, Fig. 3.) As further explained in Squibbs, with reference to Figure 3: [block quote omitted] (Squibbs, ¶0031.)

(Squibbs, ¶0031.) Album program 50 allows the user to “catalogue, manage, and view their photos through a map-based interface, the photos being represented on a displayed map by a marker indicating the location where they were taken.” (Squibbs, ¶0032.) It comprises “five main operating modes 51 to 55,” as shown. (Squibbs, ¶0033.) For example, Load Mode 52 allows the user to download data from camera 3, and Catalog Mode 53 allows the user to manage newly loaded photos using a map-based display, and Map View Mode 54 allows the user to browse the photo album and select photos for viewing. (Squibbs, ¶¶0033, 0035-0036.) Figure 6 shows a display generated by the album program in Catalog Mode 53 (Squibbs, ¶0064): [image omitted] Squibbs, Fig. 6. Figure 6 shows a central map area 61 which “is sufficient to encompass the locations registered for the newly loaded batch of photos.” (Squibbs, ¶0064.) “A thumbnail 63 of each new photo is shown in one or other of the margin areas 62A, B and a lead line 65 connects each thumbnail 63 to a corresponding marker 64 showing on the map the location where the photo was taken.” (Squibbs, ¶0064.) Figure 6 also shows an upper control bar with, from left-to-right, Show Photo Control	Album program 50 allows the user to “catalogue, manage, and view their photos through a map-based interface, the photos being represented on a displayed map by a marker indicating the location where they were taken.” (Squibbs, ¶0032.) It comprises “five main operating modes 51 to 55,” as shown. (Squibbs, ¶0033.) For example, Load Mode 52 allows the user to download data from camera 3, and Catalog Mode 53 allows the user to manage newly loaded photos using a map-based display, and Map View Mode 54 allows the user to browse the photo album and select photos for viewing. (Squibbs, ¶¶0033, 0035-0036.) Figure 6 shows a display generated by the album program in Catalog Mode 53 (Squibbs, ¶0064): [image omitted] (Squibbs, Fig. 6.) Figure 6 shows a central map area 61 which “is sufficient to encompass the locations registered for the newly loaded batch of photos.” (Squibbs, ¶0064.) “A thumbnail 63 of each new photo is shown in one or other of the margin areas 62A, B and a lead line 65 connects each thumbnail 63 to a corresponding marker 64 showing on the map the location where the photo was taken.” (Squibbs, ¶0064.) Figure 6 also shows an upper control bar with, from left-to-right, Show Photo Control 66 for displaying the photo corresponding to a selected thumbnail 63, Group Control 68 for
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66 for displaying the photo corresponding to a selected thumbnail 63, Group Control 68 for creating groups and assigning a photo to one or more groups, and Edit Photo Details Control 67 for displaying and editing the details of a selected thumbnail. (Squibbs, ¶¶0065-0068.) Figure 7 shows a display generated by the album program in Map View 54 (Squibbs, ¶0074): [image omitted] Squibbs, Fig. 7. The Map View mode in Figure 7 allows a user to browse the album. (Squibbs, ¶0074.) Squibbs explains that “[t]he starting map displayed in the Map View Mode is, for example, a world map or a map encompassing the locations of all the photos recorded in the album; alternatively, the map displayed could be the same map as being used in the Catalogue Mode before transiting to the Map View Mode.” (Squibbs, ¶0075.) Figure 7 shows photos represented “either as thumbnails 81, individual photo icons 80, group icons (see current-abode group icon 85), or concentration icons (see icon 82).” (Squibbs, ¶0075.) Squibbs also discloses (in Figure 8) the ability to display a full-size image of a photo selected from the Map View Mode. (Squibbs, ¶0091, Fig. 8.)	creating groups and assigning a photo to one or more groups, and Edit Photo Details Control 67 for displaying and editing the details of a selected thumbnail. (Squibbs, ¶¶0065-0068.) Figure 7 shows a display generated by the album program in Map View 54 (Squibbs, ¶0074): [image omitted] (Squibbs, Fig. 7.) The Map View mode in Figure 7 allows a user to browse the album. (Squibbs, ¶0074.) Squibbs explains that “[t]he starting map displayed in the Map View Mode is, for example, a world map or a map encompassing the locations of all the photos recorded in the album; alternatively, the map displayed could be the same map as being used in the Catalogue Mode before transiting to the Map View Mode.” (Squibbs, ¶0075.) Figure 7 shows photos represented “either as thumbnails 81, individual photo icons 80, group icons (see current-abode group icon 85), or concentration icons (see icon 82).” (Squibbs, ¶0075.) Squibbs also discloses (in Figure 8) the ability to display a full-size image of a photo selected from the Map View Mode. (Squibbs, ¶0091, Fig. 8.) Squibbs discloses a number of ways in which a photo can be associated with location data. In the example in Figure 3, the digital camera itself has a built-in GPS receiver. In another embodiment of
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	Squibbs discloses a number of ways in which a photo can be associated with location data. In the example in Figure 3, the digital camera itself has a built-in GPS receiver. In another embodiment of Figure 11, a digital camera 90 transmits the photo image data to a cell phone 20, which in turn uploads the image data over a cellular connection to service system 40 for storage on network store 43. (Squibbs, ¶0101, Fig. 11 (showing transfer 105); <i>see also</i> Squibbs, ¶0031 (noting that the photo store can be “external”).) The cell phone, when uploading photo image data, also transmits location information. (Squibbs, ¶0101.) Squibbs explains that the cell phone can determine location information in a number of ways, including from “a location server of the mobile radio infrastructure,” or using “a GPS system built into the cell phone.” (Squibbs, ¶0098; <i>see also id.</i>, ¶0101.) 543 IPR Petition, pp.31-36	Figure 11, a digital camera 90 transmits the photo image data to a cell phone 20, which in turn uploads the image data over a cellular connection to service system 40 for storage on network store 43. (Squibbs, ¶0101, Fig. 11 (showing transfer 105); <i>see also id.</i>, ¶0031 (noting that the photo store can be “external”).) The cell phone, when uploading photo image data, also transmits location information. (Squibbs, ¶0101.) Squibbs explains that the cell phone can determine location information in a number of ways, including from “a location server of the mobile radio infrastructure,” or using “a GPS system built into the cell phone.” (Squibbs, ¶0098; <i>see also id.</i>, ¶0101.) Ex.2034, pp.31-36
16	Motivation to Combine Neibauer, Cheng, Ausems, and Squibbs: It would have been obvious to combine Neibauer, Cheng, Ausems, and Squibbs, predictably resulting in the system and method for accessing clubs using the club photo sharing feature, but further integrating the photo (“<i>at least one content item</i>”) with “<i>information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item,</i>” i.e., the location information associated	<i>Rationale and Motivation to Combine (Neibauer, Cheng and Ausems, with Squibbs):</i> It would have been obvious to combine Neibauer, Cheng and Ausems with Squibbs, predictably resulting in the system and method for accessing clubs using the club photo sharing feature, further adapted to integrate with the photo (“at least one content item”) “information associated with at least one wireless networking functionality of the mobile device to generate at least one integrated content item,” i.e., the location information associated with

with a photo taken and uploaded by a club member. (EX-1002, ¶114.) For example, under the proposed combination, when a club member uploads a photo using the club photo sharing feature, the mobile device would not only upload the photo image data (for example, obtained from a digital camera), but also transmit geographic location associated with the photo.⁵ (EX-1002, ¶114.) The photo sharing feature would have been further adapted to also display location information associated with photos uploaded by club members, for example, via a map-based user interface similar to the one described in Figures 6-7 of Squibbs. (EX-1002, ¶115.) Under the proposed combination, therefore, the club photo sharing feature would have been further adapted to display location information (for example on an electronic map) in association with the photo, resulting in “<i>at least one integrated content item</i>” that contains both the uploaded photo as well as location information as discussed above. This would also have been seen as a natural extension of map features already disclosed in Neibauer, as discussed below. (<i>Id.</i>) Squibbs is an analogous reference in the same field as the ’578 patent and would have been reasonably pertinent to problems facing the patent inventors, including how to obtain location information and integrate that information into a display for the user. (EX-1002, ¶116.)	a photo taken and uploaded by the club member. (EX1002, ¶132.) For example, under the proposed combination, when a club member uploads a photo using the club photo sharing feature, the mobile device would not only upload the photo image data (for example, obtained from a digital camera), but also transmit geographic location associated with the photo.² (EX1002, ¶132.) The photo sharing feature would have been further adapted to also display location information associated with photos uploaded by club members, for example, via a map-based user interface similar to the one described in Figures 6-7 of Squibbs. (EX1002, ¶133.) Under the proposed combination, therefore, the club photo sharing feature would have been further adapted to display location information (for example on an electronic map) in association with the photo, resulting in “at least one integrated content item” that contains both the uploaded photo as well as location information as discussed above. This would also have been seen as a natural extension of map features already disclosed in Neibauer, as discussed below. (EX1002, ¶¶133, 135.) Squibbs is an analogous reference in the same field as the ’578 patent and would have been reasonably pertinent to problems facing the patent inventors, including how to obtain location information and integrate that information into a display for the user. (EX1002, ¶134.)
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A POSITA would have been motivated to combine in order to improve the user experience of club members who use the photo sharing feature. (EX-1002, ¶117.) The ability to associate a location with a digital photo would have provided a clear benefit by improving the classification and enjoyment of uploaded photos. Squibbs explains that classification of photos “has long been a problem due to the effort involved in maintaining any organisation of the photos.” (Squibbs, ¶0002.) Geographic location would have provided a clear way to classify digital photos, allowing club members to better understand the context behind the photo and identify objects in it. (EX-1002, ¶118.) Neibauer provides a further suggestion to combine with Squibbs by disclosing a Yahoo! Maps feature that allows users to request and view electronic maps. (Neibauer, pp.222-224.) Neibauer further describes how a user can annotate a map to identify objects of interest on the map, such as the user’s house and the location of an upcoming event. (Neibauer, pp.226-228, Fig. 10-5 (showing “My House” and “The picnic is here”).) The annotation described in Neibauer is similar to the functionality in Squibbs, and in any case, the fact that Neibauer already discloses the ability to display electronic maps – and suggests annotating those maps to show location of objects and events within the map –	An ordinarily skilled artisan would have been motivated to combine in order to improve the user experience of club members who use the photo sharing feature. (EX1002, ¶135.) The ability to associate a location with a digital photo would have provided a clear benefit by improving the classification and enjoyment of uploaded photos. Squibbs explains that classification of photos “has long been a problem due to the effort involved in maintaining any organisation of the photos.” (Squibbs, ¶0002.) Geographic location would have provided a clear way to classify digital photos, allowing club members to better understand the context behind the photo and identify objects in it. (EX1002, ¶135.) Neibauer provides a further suggestion to combine with Squibbs by disclosing a Yahoo! Maps feature that allows users to request and view electronic maps. (Neibauer, pp.222-224.) Neibauer further describes how a user can annotate a map to identify objects of interest on the map, such as the user’s house and the location of an upcoming event. (Neibauer, pp.226-228, Fig. 10-5 (showing “My House” and “The picnic is here”).) The annotation described in Neibauer is similar to the functionality in Squibbs, and in any case, the fact that Neibauer already discloses the ability to display electronic maps – and suggests annotating those maps to show location of objects and events within the map – confirms that Neibauer and Squibbs are naturally combinable and that a skilled
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	confirms that Neibauer and Squibbs are naturally combinable and that a POSITA would have been motivated to do so. (EX-1002, ¶119.) A POSITA would also have had a reasonable expectation of success, as Squibbs relies on existing technologies and could have been implemented using conventional techniques. (EX-1002, ¶114 n.4.) 543 IPR Petition, pp.37-39	artisan would have been motivated to do so. (EX1002, ¶135.) A skilled artisan would also have had a reasonable expectation of success, as Squibbs relies on existing technologies and could have been implemented using conventional techniques. (EX1002, ¶136.) Ex.2034, pp.36-39
17	This limitation was largely covered in the discussion of limitation [1B] above. Under the proposed combination, the integrated content item would have been inserted into and thus viewable through the club photo sharing feature. (EX-1002, ¶172.) It would also have been obvious that the club photo sharing feature (“<i>the application-based information channel</i>”) would have provided a second interface allowing two or more club members to share access to a plurality of uploaded photos, including the “<i>integrated content item</i>.” (EX-1002, ¶173.) Neibauer discloses a user interface for allowing club members to select a photo album and view the photos within the selected album. First, with respect to selection of an album: [image omitted] (Neubauer, p.477.) The user interface shown above lists a number of available photo albums. “Click an album name to see a list of the	This limitation was largely covered in the discussion of limitation 1[b] above. Under the proposed combination, the integrated content item would have been inserted into and thus viewable through the club photo sharing feature. It would also have been obvious that the club photo sharing feature (“the application-based information channel”) would have provided a second interface allowing two or more club members to share access to a plurality of uploaded photos, including the “integrated content item.” Neibauer discloses a user interface for allowing club members to select a photo album and view the photos within the selected album. First, with respect to selection of an album: [image omitted] (Neubauer, p.477.) The user interface shown above lists a number of available photo albums. This user interface, as noted above, has an “Add Photo” link to allow a member to add a new photo to the album. “Click an album name to see a list of the photographs stored there, as

photographs stored there, as shown in Figure 21-10.” (Neibauer, p.477.) [image omitted] (Neibauer, p.478, Fig. 21-10.) Figure 21-10 as noted above shows a list of photographs stored in an album. This user interface also has “Add Photo” button to allow a member to add a new photo to the album. “For each photo you will see the title, contributor’s name, the photo’s size, and the date it was posted. Click a photo title to see the photo on your screen. Click View Thumbnails to see miniatures of all of the photographs.” (Neibauer, p.477.) Neibauer thus discloses a “<i>second interface wherein two or more users share access to a plurality of content items,</i>” because it discloses a user interface allowing multiple club members to share access to the photos posted to a photo album. Under the proposed combination, the “<i>second interface</i>” would also have provided access to “<i>the at least one integrated content item.</i>” In the case where the integrated content item comprises a photo with its accompanying textual message content (based on a “messaging action” or “collaboration action”), as explained for limitation [1B] above, the interface described and shown above in Figure 21-10 allows club members to access both the photo and its accompanying textual name and description.	shown in Figure 21-10.” (Neibauer, p.477.) [image omitted] (Neibauer, p.478, Fig. 21-10.) Figure 21-10 as noted above shows a list of photographs stored in an album. This user interface also has “Add Photo” button to allow a member to add a new photo to the album. “For each photo you will see the title, contributor’s name, the photo’s size, and the date it was posted. Click a photo title to see the photo on your screen. Click View Thumbnails to see miniatures of all of the photographs.” (Neibauer, p.477.) Neibauer thus discloses a “second interface wherein two or more users share access to a plurality of content items,” because it discloses a user interface allowing multiple club members to share access to the photos posted to a photo album. Under the proposed combination, the “second interface” would also have provided access to “the at least one integrated content item.” In the case where the integrated content item comprises a photo with its accompanying textual message content (based on a “messaging action” or “collaboration action”), as explained for limitation 1[b] above, the interface described and shown above in Figure 21-10 allows club members to access both the photo and its accompanying textual name and description.
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In the case where “<i>the integrated content item</i>” is a photo that integrates location information, under the proposed combination with Squibbs, the user interface in Neibauer would have been adapted to display the photo (or a thumbnail of the photo) with accompanying location information. This could have been implemented in a number of ways, presenting a trivial design choice to a POSITA. In one example, the photo album listing and photo display user interface in Neibauer discussed above have been further adapted such that, upon selecting a photo from Figure 21-10 that had associated location information (the “<i>integrated content item</i>”), the photo could have been displayed in connection with an electronic map showing where the photo was taken, as disclosed in Squibbs. (EX-1002, ¶177.) As another example, the interface in Figure 21-10 could itself have been adapted based on Figures 6 and 7 of Squibbs, such that multiple photos in the album are displayed in thumbnail view on a map. Many other implementations would have been apparent and obvious to a POSITA. (<i>Id.</i>) It also would have been obvious that the “<i>second interface</i>” would have been different from the “<i>first interface</i>” of limitation [1A]. As explained, the “<i>first interface</i>” of limitation [1A] includes the user interface for adding a new photo to a selected album; as explained, this interface is reachable by	In the case where “the integrated content item” is a photo that integrates location information, under the proposed combination with Squibbs, the user interface in Neibauer would have been adapted to display the photo (or a thumbnail of the photo) with accompanying location information. This could have been implemented in a number of ways, presenting a trivial design choice to an ordinarily skilled artisan. In one example, the photo album listing and photo display user interface in Neibauer discussed above have been further adapted such that, upon selecting a photo from Figure 21-10 that had associated location information (the “integrated content item”), the photo could have been displayed in connection with an electronic map showing where the photo was taken, as disclosed in Squibbs. As another example, the interface in Figure 21-10 could itself have been adapted based on Figures 6 and 7 of Squibbs, such that multiple photos in the album are displayed in thumbnail view on a map. Many other implementations would have been apparent and obvious to an ordinarily skilled artisan. (EX1002, ¶140.) It also would have been obvious that the “second interface” would have been different from the “first interface” of limitation 1[a]. As explained, the “first interface” of limitation 1[a] includes the user interface for adding a new photo to a selected album; as explained, this interface is reachable by clicking “Add Photo” on the “second interface”
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	clicking “Add Photo” on the “<i>second interface</i>” described above – confirming that they are different user interfaces providing distinct functionality. (EX-1002, ¶178.) 543 IPR Petition, pp.42-45	described above – confirming that they are different user interfaces providing distinct functionality. (EX1002, ¶141.) Ex.2034, pp.39-42
18	Under the combination in view of Squibbs, the claimed wireless networking functionality information would have included location information of the mobile device. (EX-1002, ¶¶179.) 543 IPR Petition, p.45	Under the proposed combination in view of Squibbs, as explained, the claimed wireless networking functionality information would have included location information of the mobile device. (EX1002, ¶¶132-133.) Ex.2034, p.42
19	As discussed for limitation [1B], under the proposed combination in view of Squibbs, when a club member uploads a photo via their mobile device to the club photo sharing feature, the mobile device would have “<i>obtain[ed] location information</i>” (e.g., via GPS or mobile radio infrastructure) of the mobile device used to upload the photo. (Squibbs, ¶¶0101, 0098.) The combination, moreover, would have “<i>identif[ied] additional content based on the obtained location information,</i>” because the club photo sharing feature would have identified an electronic map or other location information (“<i>additional content</i>”) based on the location information, and used it to “<i>generat[e] the at least one integrated content item by combining the at least one content item with the additional content,</i>” by generating a display of the uploaded photo (or a thumbnail of it) alongside the electronic map showing the location. (EX-1002, ¶180.)	Claim 3 was covered in the discussion of limitation 1[b]. Under the proposed combination in view of Squibbs, when a club member uploads a photo via their mobile device to the club photo sharing feature, the mobile device would have “obtain[ed] location information” (e.g. via GPS or mobile radio infrastructure) of the mobile device used to upload the photo. (Squibbs, ¶¶0101, 0098.) The proposed combination, moreover, would have “identif[ied] additional content based on the obtained location information,” because the club photo sharing feature would have identified an electronic map or other location information (“additional content”) based on the location information, and used it to “generat[e] the at least one integrated content item by combining the at least one content item with the additional content,” by generating a display of the uploaded photo (or a thumbnail of it) alongside the electronic map showing the location. (EX1002,

	543 IPR Petition, p.46	¶143.) Ex.2034, p.43
20	As noted, the '578 patent makes clear that information associated with at least one wireless networking functionality can comprise a “messaging action” or “collaboration action” implemented over a wireless network. (EX-1001, 6:5-17, Claim 6.) Claim 4 is obvious in view of the Yahoo! Classifieds feature in Neibauer. Yahoo! Classifieds, described in the same chapter of Neibauer as Yahoo! Clubs, provides a feature for allowing users to post messages about items they wish to sell or purchase. (Neibauer, p.491.) This is shown in Figure 21-20: [image omitted] (Neibauer, p.491, Fig. 21-20.) As shown, a user posts an advertisement by entering product-identifying information such as in the ad title or description. (Neibauer, p.491, Fig. 21-20.) It would have been obvious to apply the Yahoo! Classifieds teachings to the club photo sharing feature, predictably resulting in the photo sharing feature being used by club members to post messages and photos relating to items they are offering for sale. (EX-1002, ¶182.) <i>See also Boston Scientific Scimed, Inc. v. Cordis Corp.</i>, 554 F.3d 982, 991 (Fed. Cir. 2009) (“Combining two embodiments disclosed adjacent to each other in a prior art [reference]	As noted, the '578 patent makes clear that information associated with at least one wireless networking functionality can comprise a “messaging action” or “collaboration action” implemented over a wireless network. ('578, 6:5-17, Claim 6.) Claim 4 is obvious in view of the Yahoo! Classifieds feature in Neibauer. Yahoo! Classifieds, described in the same chapter of Neibauer as Yahoo! Clubs, provides a feature for allowing users to post messages about items they wish to sell or purchase. (Neibauer, p.491.) This is shown in Figure 21-20: [image omitted] (Neibauer, p.491, Fig. 21-20.) As shown, a user posts an advertisement by entering product-identifying information such as in the ad title or description. (<i>Id.</i>) It would have been obvious to apply the Yahoo! Classifieds teachings to the club photo sharing feature, predictably resulting in the photo sharing feature being used by club members to post messages and photos relating to items they are offering for sale. (EX1002, ¶145.) <i>See also Boston Scientific Scimed, Inc. v. Cordis Corp.</i>, 554 F.3d 982, 991 (Fed. Cir. 2009) (“Combining two embodiments disclosed adjacent to each other in a prior art [reference] does not require a leap of inventiveness.”). For example, it would have been obvious for

does not require a leap of inventiveness.”). For example, it would have been obvious for a member to provide product-identifying information about a product associated with an uploaded photo, such as “For sale: 2002 Volkswagen Jetta!” (EX-1002, ¶¶181-82.) This would have provided a advantage of not only specifically targeting club members (who are likely to have had similar interests), but the accompanying photos would have provided a more compelling advertisement when compared to a text-only advertisement. (EX-1002, ¶182.) It would also have been obvious to obtain product-identifying information “<i>over at least one wireless network</i>,” because under the proposed combination, the information would have been sent to the photo sharing service over the Internet a wireless network. For example, Neibauer discloses in connection with the Yahoo! Mobile service that a mobile PDA could have included a “GSM Phone” modem. (Neibauer, p.171, ¶5.) GSM, which stands for Global System for Mobile Communication, was a dominant wireless (cellular) mobile network in widespread use in the United States the early 2000s. (EX-1002, ¶183.) Cheng similarly discloses wireless network device connectivity. (Cheng, <i>e.g.</i>, 2:4-7, 5:33 (“a cellular telephone”); <i>see also</i> 23:44-51.) It would have been obvious that the content by club members, under the	a member to provide product-identifying information about a product associated with an uploaded photo, such as “For sale: 2002 Volkswagen Jetta!” (EX1002, ¶144.) This would have provided a clear advantage of not only specifically targeting club members (who are likely to have had similar interests), but the accompanying photos would have provided a more compelling advertisement when compared to a text-only advertisement. (EX1002, ¶145.) It would also have been obvious to obtain product-identifying information “over at least one wireless network,” because under the proposed combination, the information would have been sent to the photo sharing service over the Internet a wireless network. For example, Neibauer discloses in connection with the Yahoo! Mobile service that a mobile PDA could have included a “GSM Phone” modem. (Neibauer, p.171, ¶5.) GSM, which stands for Global System for Mobile Communication, was a dominant wireless (cellular) mobile network in widespread use in the United States the early 2000s. (EX1002, ¶146.) Cheng similarly discloses wireless network device connectivity. (Cheng, <i>e.g.</i>, 2:4-7, 5:33 (“a cellular telephone”), 23:44-51 (“... wireless communication (<i>e.g.</i>, radio frequency (RF), and the like”)).) It would have been obvious that the content by club members, under the proposed combination, would have been via mobile devices associated with a wireless network, such as a known
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proposed combination, would have been provided via mobile devices associated with a wireless network. (EX-1002, ¶183.) A POSITA would have been motivated to allow handheld devices to provide content over a wireless network to take advantage of the growing popularity of mobile computing. (<i>Id.</i>) Claim 4 continues by reciting, “<i>identifying additional content based on the obtained product-identifying information.</i>” Neibauer discloses that, in connection with a classified ad, additional content such as the price, condition, and warranty information would have been identified. (Neibauer, p.491. Fig. 21-20 (showing classified ad form showing required fields for price, condition, warranty).) Under the proposed combination, therefore, a photo-enabled classified ad posted to the photo sharing feature would have included this additional content, which would have been based on the product identifying information (<i>e.g.</i>, the price, condition, and warranty information for a 2002 Volkswagen Jetta). (EX-1002, ¶184.) Claim 4 concludes by “<i>generating the at least one integrated content item by combining the at least one content item with the additional content,</i>” which would have occurred under the proposed combination because, as discussed for limitation [1B], the photo uploaded by the club member (“<i>the at least one content item</i>”) is integrated	cellular communications network (like GSM). (EX1002, ¶125.) A skilled artisan would have been motivated to allow mobile devices to provide content over a wireless network to take advantage of the growing popularity of mobile and wireless computing. (EX1002, ¶¶146, 106.) Claim 4 continues by reciting, “identifying additional content based on the obtained product-identifying information.” Neibauer discloses that, in connection with a classified ad, additional content such as the price, condition, and warranty information would have been identified. (Neibauer, p.491. Fig. 21-20 (showing classified ad form showing required fields for price, condition, warranty).) Under the proposed combination, therefore, a photo-enabled classified ad posted to the photo sharing feature would have included this additional content, which would have been based on the product identifying information (<i>e.g.</i>, the price, condition, and warranty information for a 2002 Volkswagen Jetta). (EX1002, ¶147.) Claim 4 concludes by “generating the at least one integrated content item by combining the at least one content item with the additional content,” which would have occurred under the proposed combination because, as discussed for limitation 1[b], the photo uploaded by the club member (“the at least one content item”) is integrated with textual content provided by the
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	with textual content provided by the user. Under the further combination with Neibauer’s Yahoo! Classifieds disclosures, the generated integrated content item would have included the additional content such as the price, condition, and warranty information for the product. (EX-1002, ¶185.) 543 IPR Petition, pp.46-50	user. Under the further combination with Neibauer’s Yahoo! Classifieds disclosures, the generated integrated content item would have included the additional content such as the price, condition, and warranty information for the product. (EX1002, ¶148.) Ex.2034, pp.44-47
21	As explained for claim 4, the additional content would also have comprised pricing and sales conditions information (“<i>product ordering</i>”) and warranty information from the seller (“<i>product purchase support</i>”). (Neibauer, p.491 (“Complete the form by describing the item and your sales conditions, and then click Submit Entry.”), Fig. 21-20.) It would have been apparent and obvious that many other well-known types of product ordering or purchase support information could have been provided, including whether the seller accepted returns or all sales were final, who payment and delivery/shipping were to be effectuated, among others. (EX-1002, ¶186.) 543 IPR Petition, p.50	As explained for claim 4, the additional content would also have comprised pricing and sales conditions information (“product ordering”) and warranty information from the seller (“product purchase support”). (Neibauer, p.491 (“Complete the form by describing the item and your sales conditions, and then click Submit Entry.”), Fig. 21-20 (Condition, Price, and Warranty information).) It would have been apparent and obvious that many other well-known types of product ordering or purchase support information could have been provided, including whether the seller accepted returns or all sales were final, who payment and delivery/shipping were to be effectuated, among others. (EX1002, ¶149.) Ex.2034, p.48
22	As explained for limitation [1B], the information associated with at least one wireless networking functionality can comprise either “<i>one or more messaging actions</i>” or “<i>one or more collaboration actions</i>,” both of which would have been implemented over the wireless network. As also explained for [1B], the information associated with at	As fully explained for limitation 1 [b], the information associated with at least one wireless networking functionality can comprise either “one or more messaging actions” or “one or more collaboration actions,” both of which would have been implemented over the wireless network. As also explained for 1 [b], the information associated with at

	least one wireless networking functionality would have comprised location-based service information, <i>e.g.</i>, the location of the user as obtained either through the mobile radio infrastructure or via GPS. (Squibbs, ¶¶0098, 0101.) 543 IPR Petition, p.51	least one wireless networking functionality would have comprised location-based service information, <i>e.g.</i>, the location of the user as obtained either through the mobile radio infrastructure or via GPS. (Squibbs, ¶¶0098, 0101.) Ex.2034, pp.48-49
23	Neibauer explains that, in connection with uploading a photo using the photo sharing feature, the member has the option of resizing the photo. (Neibauer, p.478, ¶4 (“Select an option from the Resize Photo section. Resizing allows Yahoo! to adjust the photograph to make better use of the club’s Web space and make photos easier to view.”).) Cheng similarly discloses that images can undergo a number of user-selected conversions: [image omitted] Cheng, Fig. 8 As shown, the user can define a number of conversions to reduce the size of an image including, among other things, scaling, color reduction, resolution reduction, and reducing the quality of the JPEG image conversion, among other things. (Cheng, 10:63-11:19.) The user can also specify a maximum file size for a converted image. (Cheng, 11:17-19, 12:47-50.) It would have been obvious to also include these conversion options from Cheng with the photo sharing feature of	Neibauer explains that, in connection with uploading a photo using the photo sharing feature, the member has the option of resizing the photo. (Neibauer, p.478, ¶4 (“Select an option from the Resize Photo section. Resizing allows Yahoo! to adjust the photograph to make better use of the club’s Web space and make photos easier to view.”).) Cheng similarly discloses that images can undergo a number of user-selected conversions: [image omitted] (Cheng, Fig. 8.) As shown, the user can define a number of conversions to reduce the size of an image including, among other things, scaling, color reduction, resolution reduction, and reducing the quality of the JPEG image conversion, among other things. (Cheng, 10:63-11:19.) The user can also specify a maximum file size for a converted image. (Cheng, 11:17-19, 12:47-50.) It would have been obvious to also include these conversion options from Cheng with the photo sharing feature of

	Neibauer (along with its existing resizing capability), to provide the club member further control (via the first interface) over the conversion of images for display on mobile devices. (EX-1002, ¶189.) Any one of the conversion options disclosed in Neibauer alone or in combination with Cheng qualifies as a “<i>content integration option</i>,” because each option allows club members to specify how uploaded photos will be transformed before being integrated into the photo sharing feature. (<i>Id.</i>) 543 IPR Petition, pp.51-53	Neibauer (along with its existing resizing capability), to provide the club member further control (via the first interface over the conversion of images for display on mobile devices. (EX1002, ¶152.) Any one of the conversion options disclosed in Neibauer alone or in combination with Cheng qualifies as a “content integration option,” because each option allows club members to specify how uploaded photos will be transformed before being integrated into the photo sharing feature. (<i>Id.</i>) Ex.2034, pp.49-51
24	Claim 8 adds nothing of patentable significance, as it would have been obvious that the steps of claim 1 would have been carried out by software code executed by a processing element of the communication system, such as a server that includes a processor and memory. (EX-1002, ¶190; Cheng, <i>e.g.</i>, 23:16-20.) It would also have been obvious that the software used to carry out the functions of claim 1 would have been stored on at least one non-transitory computer-readable storage medium, such as a hard drive or random-access memory (RAM). (Cheng, <i>e.g.</i>, 23:64-24:4; EX-1002, ¶190.) Under the combination with Cheng, therefore, the “<i>processing element</i>” would have included origin web server 102 in Cheng (which would have performed the functions in Neibauer), and proxy server 110 (which would have made the features of Neibauer available to mobile devices).	Claim 8 adds nothing of patentable significance, as it would have been obvious that the steps of claim 1 would have been carried out by software code executed by a processing element of the communication system, such as a server that includes a processor and memory. (EX1002, ¶153; Cheng, <i>e.g.</i>, 23:16-20.) It would also have been obvious that the software used to carry out the functions of claim 1 would have been stored on at least one non-transitory computer-readable storage medium, such as a hard drive or random-access memory (RAM). (Cheng, <i>e.g.</i>, 23:64-24:4 (explaining that instructions may be stored in random access memory or hard disk storage until required by the computer system).) Under the combination with Cheng, therefore, the “processing element” would have included origin web server 102 in Cheng (which would have performed the functions in Neibauer), and proxy server 110 (which would have

Mapping the claimed “<i>processing element</i>” to origin web server 102 and proxy server 110 is consistent with the ’578 patent, which makes clear that a processing element or server can itself comprise multiple servers. (EX-1001, 9:21-24 (“Each of the servers 33, 35, 37 and 39 [of processing elements 30] may comprise one or more of the servers 16 or other elements shown in FIG. 1A, or suitable portions or combinations thereof.”).) And even if the claim required that the “<i>processing element</i>” be contained within a single physical server (it does not), it would have been obvious to combine proxy server 110 and origin server 102 into a single server. (EX-1002, ¶192.) Cheng explains that the computer system implementing the proxy server can “be replaced by, or combined with, any suitable processing system operative in accordance with the principles of the present invention....” (Cheng, 23:20-25.) A POSITA would have been familiar with well-known techniques for consolidating tasks within a single server when needed. (EX-1002, ¶192.) For example, a POSITA would have been motivated to combine these servers to improve performance of the overall system, as this would have eliminated the step of (and network overhead associated with) origin server 102 having to send the original web page 104 to proxy server 110. (<i>Id.</i>)	made the features of Neibauer available to mobile devices). Petitioner notes that mapping the claimed “processing element” to origin web server 102 and proxy server 110 is consistent with the ’578 patent, which makes clear that a processing element or server can itself comprise multiple servers. (’578, 9:21-24 (“Each of the servers 33, 35, 37 and 39 [of processing elements 30] may comprise one or more of the servers 16 or other elements shown in FIG. 1A, or suitable portions or combinations thereof.”).) And even if the claim required that the “processing element” be contained within a single physical server (it does not), it would have been obvious to combine proxy server 110 and origin server 102 into a single server. (EX1002, ¶154.) This implementation is disclosed by Cheng itself, which explains that the computer system implementing the proxy server can “be replaced by, or combined with, any suitable processing system operative in accordance with the principles of the present invention....” (Cheng, 23:20-25.) This would have been obvious and trivial in view of Cheng, as ordinarily skilled artisans would have been familiar with well-known techniques for consolidating tasks within a single server when needed. (EX1002, ¶154.) For example, an ordinarily skilled artisan would have been motivated to combine these servers to improve performance of the overall system, as this would have eliminated the step (and network overhead associated with) origin server 102 having
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	543 IPR Petition, pp.53-54	to send the original web page 104 to proxy server 110 over the Internet. (<i>Id.</i>) Ex.2034, pp.51-52
25	It would have been obvious that the claimed apparatus includes at least one “<i>processing element</i>,” such as at least one server that includes a processor coupled to a memory as explained for claim 10. (EX-1002, ¶195; Cheng, 23:16-20.) Claim 10, which depends from claim 9, expressly recites that “<i>the processing element comprises at least one server</i>,” confirming that the claimed processing element can comprise servers. It would have apparent and obvious that origin web server 102 in Cheng (which would have provided the features described in Neibauer), and proxy server 110, under the proposed combination, would have comprised “<i>a processing element comprising a processor coupled to a memory</i>.” (EX-1002, ¶196.) Petitioners note that mapping the claimed “<i>processing element</i>” as including a web server and proxy server 110 is consistent with the ’578 patent, as explained for claim 8. And as explained for claim 8 above, it would also have been obvious to combine origin server 102 and proxy server 110, to the extent the claim were construed to impose such a requirement. (EX-1002, ¶¶192, 196.) 543 IPR Petition, pp.55-56	It would have been obvious that the claimed apparatus includes at least one “processing element,” such as at least one server that includes a processor coupled to a memory as explained for claim 10. (EX1002, ¶¶156-157; Cheng, 23:16-20.) Claim 10, which depends from claim 9, expressly recites that “the processing element comprises at least one server,” confirming that the claimed processing element can comprise servers. It would have apparent and obvious that origin web server 102 in Cheng (which would have provided the features described in Neibauer), and proxy server 110, under the proposed combination, would have comprised “a processing element comprising a processor coupled to a memory.” (EX1002, ¶157.) Petitioner notes that mapping the claimed “processing element” as including a web server and proxy server 110 is consistent with the ’578 patent, as explained for claim 8. And as fully explained for claim 8 above, it would also have been obvious to combine origin server 102 and proxy server 110, to the extent the claim were construed to impose such a requirement. (EX1002, ¶¶154, 157.) Ex.2034, pp.53-54
26	As noted, the processing element comprises at least one server,	As noted, the processing element comprises at least one server, accessible

	accessible over the Internet. (Cheng, 3:67-4:2 (“As shown [in Figure 1], the proxy server 110 and the server 102 are connected via a network 114 such as the Internet.”).) It would have been obvious that these servers would have been accessible over the Internet “<i>via a network interface</i>,” as a network interface such as a communications port is a basic component for allowing a computer (such as a server) to communicate with other devices over a network such as the Internet. (EX-1002, ¶200; Cheng, 23:44-51 (“Communications with external devices... occur utilizing communication port 1516...”); Neibauer, p.4 (explaining that Yahoo! members need access to an Internet connection).) 543 IPR Petition, p.57	over the Internet. (Cheng, 3:67-4:2 (“As shown [in Figure 1], the proxy server 110 and the server 102 are connected via a network 114 such as the Internet.”).) It would have been obvious that these servers would have been accessible over the Internet “via a network interface,” as a network interface such as a communications port is a basic component for allowing a computer (such as a server) to communicate with other devices over a network such as the Internet. (EX1002, ¶161; Cheng, 23:44-51 (“Communications with external devices... occur utilizing communication port 1516...”); Neibauer, p.4 (explaining that Yahoo! members need access to an Internet connection).) Ex.2034, pp.54-55
27	This claim is obvious for the same reasons as claim 9. First, the proposed combination renders obvious “[a] <i>network-based communication system comprising a plurality of servers configured to communicate over a network</i>,” which would have included one or more origin servers 102 on the Internet that contain web page content, along with at least proxy server 110. (Cheng, 3:49-53.) Claim 11 continues by reciting that “<i>a given one of the servers compris[es] the apparatus of claim 9.</i>” For purposes of claim 11, it would have been obvious that “<i>a given one of the servers</i>” would have corresponded to proxy server 110 in Cheng with origin server 102, as noted,	This claim is obvious for the same reasons as claim 9. First, the proposed combination renders obvious “[a] network-based communication system comprising a plurality of servers configured to communicate over a network,” which would have included one or more origin servers 102 on the Internet that contain web page content, along with at least proxy server 110. (Cheng, 3:49-53 (“In general, embodiments of the present invention contemplate that architecture 100 comprises one or more servers 102 having web content (in the form of at least one web page 104), a proxy server 110, at least one mobile device 108, and at least one network 114.”).) Claim 11

	because the '578 patent makes clear that a given server can comprise multiple servers. (EX-1001, 9:21-24.) But to the extent the claim were interpreted to require a single server, as noted, it would have been obvious to combine proxy server 110 with origin server 102 to form a combined server for performing the functions of claim 9. (EX-1002, ¶¶192, 202.) 543 IPR Petition, p.58	continues by reciting that “a given one of the servers compris[es] the apparatus of claim 9.” For purposes of claim 11, it would have been obvious that “a given one of the servers” would have corresponded to proxy server 110 in Cheng with origin server 102, as noted, because the '578 patent makes clear that a given server can comprise multiple servers. ('578, 9:21-24.) But to the extent the claim were interpreted to require a single server, as noted, it would have been obvious to combine proxy server 110 with origin server 102 to form a combined server for performing the functions of claim 9. (EX1002, ¶¶163, 154) Ex.2034, p.55
28	[12A]-[12B] are substantially similar to the limitations in [1A]-[1B], and present no material differences here. Limitation [12A] is substantially similar to but arguably broader than [1A] as it does not recite the “<i>first interface</i>” limitation of [1A]. Limitation [12B] (“<i>providing information ... for integration with the at least one content item,</i>”) is substantially similar to [1B] (“<i>integrating the at least one content item and information,</i>”), an immaterial difference. The “<i>wherein</i>” limitations of 1[12C]-[12D] are already captured in [1B]-[1C]. There are slight differences in wording, for example [12C]-[12D] are written as “<i>wherein</i>” clauses in passive voice, whereas [1B]-[1C] are written as active voice method steps, but they recite the same features.	Limitations 12[a]-[b] are substantially similar to the limitations in 1[a]-[b], and present no material differences here. Limitation 12[a] is substantially similar to but arguably broader than 1[a] as it does not recite the “first interface” limitation of 1[a]. Limitation 12[b] is substantially similar to 1[b] and simply flips the wording of the limitations; 12[b] recites “providing information ... for integration with the at least one content item,” 1[b] recites “integrating the at least one content item and information,” an immaterial difference. The “wherein” limitations of 12[c]-[d] are already captured in 1[b]-1[c]. There are slight differences in wording, for example 12[c]-[d] are written as “wherein” clauses in passive voice, whereas 1[b]-[c] are written as active voice method steps, but they recite the

	Claim 12 is rendered obvious for the reasons stated for claim 1. (EX-1002, ¶204.) 543 IPR Petition, p.59	same features and thus claim 12 is rendered obvious for the reasons stated for claim 1. Ex.2034, p.56
29	As explained for claim 1, “<i>information associated with at least one wireless networking functionality</i>” can include information related to “messaging actions” or “collaboration actions.” (EX-1001, 6:5-17 & claim 6.) Neibauer discloses a “<i>content integration option</i>” with its photo album. The user interface allows the user to add a photo to an album: [image omitted] (Neubauer, p.477.) Each album has an “Add Photo” link. (Neibauer, p.477, ¶1.) Figure 21-10 shows a different interface: [image omitted] (Neibauer, p.478, Fig. 21-10.) 543 IPR Petition, pp.60-61	As fully explained for claim 1, “information associated with at least one wireless networking functionality” can include information related to “messaging actions” or “collaboration actions” implementable over a wireless network. (’578, 6:5-17 & claim 6.) For purposes of claim 14, Neibauer discloses a “content integration option” in the form of a selection of the particular photo album in which the new photo will be placed. For example, the user interface below allows the user to add a photo to a particular photo album: [image omitted] (Neubauer, p.477.) The user interface shown above lists a number of available photo albums, and has an “Add Photo” link next to each album to allow a member to add a new photo to that album. (Neibauer, p.477, ¶1.) The user can make a similar selection through Figure 21-10: [image omitted] (Neibauer, p.478, Fig. 21-10.) Ex.2034, pp.57-58
30	In either scenario, Neibauer discloses “<i>providing one or more content integration options to a user,</i>” <i>i.e.</i>, providing albums where the photo will	In either scenario, Neibauer discloses “providing one or more content integration options to a user,” <i>i.e.</i>, providing options to select a particular

be integrated, and “<i>receiving user input selecting at least one of the content integration options,</i>” <i>i.e.</i>, selecting add photo to integrate the photo in an album. Finally, the proposed combination renders obvious “<i>determining the information associated with said at least one wireless network functionality of the mobile device in accordance with the selected content integration options.</i>” Under the proposed combination as explained for limitation [1B], when the wireless networking functionality information is associated with a messaging or collaboration action, this information would have included textual message information provided by the club member when uploading the photo, such as the textual name and description. This information would have been determined “<i>in accordance with the selected content integration options,</i>” as claimed, because that textual message would have been obtained, stored, and later displayed in connection with the album. For example, the top entry in the exemplary club photo album of Figure 21-10 is for a photo named “Denise Richards” described as “Stunning blue bikini,” and this information is shown as being part of “Blueraja’s BOND GIRL Album,” the album selected by that club member for that photo. (EX-1002, ¶¶208-09.) 543 IPR Petition, pp.61-62	photo album where the photo will be integrated, and “receiving user input selecting at least one of the content integration options,” <i>i.e.</i>, when the user selects a particular photo album to which the photo will be integrated. Finally, the proposed combination renders obvious “determining the information associated with said at least one wireless network functionality of the mobile device in accordance with the selected content integration options.” Under the proposed combination as fully explained for limitation 1 [b], when the wireless networking functionality information is associated with a messaging or collaboration action, this information would have included textual message information provided by the club member when uploading the photo, such as the textual name and description. This information would have been determined “in accordance with the selected content integration options,” as claimed, because that textual message would have been obtained, stored, and later displayed in connection with the particular album selected by the club member that provided it. For example, the top entry in the exemplary club photo album of Figure 21-10 is for a photo named “Denise Richards” described as “Stunning blue bikini,” and this information is shown as being part of “Blueraja’s BOND GIRL Album,” the album selected by that club member for that photo. (EX1002, ¶¶169-170.)
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		Ex.2034, p.59
31	Claim 17 is obvious for the same reasons as claim 9, as the same club functionalities provided by the servers under the proposed combination are accessed by and used by the mobile devices used by club members. Under the proposed combination, the “<i>mobile device</i>” corresponds to the mobile device used by a club member to access the photo sharing feature. (EX-1002, ¶¶212-13.) 543 IPR Petition, p.63	Claim 17 is nevertheless obvious for the same reasons as claim 9, as the same club functionalities provided by the servers under the proposed combination are accessed by and used by the mobile devices used by club members. The preamble recites “[a] mobile device comprising,” and under the proposed combination, the mobile device corresponds to the mobile device used by a club member to access the photo sharing feature. Ex.2034, p.60
32	The mobile device under the combination would have included “<i>a processing element comprising a processor coupled to a memory</i>” [17A], which are basic components of any computing device. (EX-1002, ¶214; <i>see</i> Ausems, 7:53-56 (“Referring now to FIG. 3, PDA engine 290... includes central processing unit (CPU) 305, random access memory (RAM) 310, read only memory (ROM) 315...”); <i>see also</i> 5:49-54; 7:60-63.) The mobile device would also have included “<i>a network interface</i>” [17B] in order to allow wireless communication over a network. (EX-1002, ¶215.) Ausems discloses, for example, a network interface that includes “[w]ireless phone engine 210 [that] transmits and receives audio data via antenna 110, as well as text and images,” as well as modem 220 that “enables PDA telephone to...have Internet access.” (Ausems, 5:56-58, 5:66-6:1.)	The mobile device would have included a processing element “comprising a processor coupled to a memory,” which are basic components of any computing device. (<i>See</i> Ausems, 5:49-54 (“PDA telephone 100 includes... a PDA engine 390.”), 7:53-56 (“Referring now to FIG. 3, PDA engine 290... includes central processing unit (CPU) 305, random access memory (RAM) 310, read only memory (ROM) 315...”), 7:60-62 (“RAM 310 is coupled to CPU 305 and is used as a temporary storage area for data processed by CPU 305.”), 7:63 (“ROM 315 is coupled to CPU 305.”).) The mobile device would also have included “a network interface” in order to allow it to wirelessly communicate over a network. (EX1002, ¶176.) Ausems discloses, for example, a network interface that includes “[w]ireless phone engine 210 [that] transmits and receives audio data via antenna 110, as well as text and images,” as well as modem 220 that “enables PDA

	543 IPR Petition, pp.63-64	telephone to... have Internet access.” (Ausems, 5:56-58, 5:66-6:1.) Ex.2034, p.61
33	Limitation [22B] adds that the content item is provided “ <i>to at least one server</i> ”; under the proposed combination, the content item would have been sent to at least origin server 102 (providing the features of Neibauer) and under the combination with Cheng, proxy server 110 (which sits between the mobile device and origin server 102 and translates Neibauer’s features for the mobile device). (EX-1002, ¶225.) 543 IPR Petition, p.66	Limitation 22 [b] adds that the content item is provided “ to at least one server ,” and under the proposed combination as explained for 1 [a] , the content item would have been sent to at least origin server 102 (providing the features of Neibauer) and under the combination with Cheng, proxy server 110 (which sits between the mobile device and origin server 102 and translates Neibauer’s features for the mobile device). Ex.2034, p.64
34	As explained for limitation [1B], information associated with at least one wireless functionality is sent by the mobile device. Further, as explained for limitation [22B], this information is sent “ <i>to said at least one server</i> .” This information would have been provided “ <i>responsive to user input</i> ,” because it would have occurred in response to input by the club member in providing a photo for inclusion in an album using the photo sharing feature. (EX-1002, ¶226.) 543 IPR Petition, p.67	As explained for limitation 1 [b] , under the proposed combination, information associated with at least one wireless functionality is sent by the mobile device. As explained for limitation 22 [b] , this information is sent “ to said at least one server ,” claimed. This information would have been provided “ responsive to user input ,” because it would have occurred in response to input by the club member in providing a photo for inclusion in an album using the photo sharing feature. Ex.2034, pp.64-65
35	VII. Ground 2: Obviousness in Further View of Harvey. Ground 2 is substantially the same as Ground 1 except that it adds Harvey (EX-1010) to account for a construction of “ <i>application-based</i>	D. Ground 2: Obviousness in Further View of Harvey. Ground 2 is substantially the same as Ground 1 except that it adds Harvey (EX1010) to account for a construction of “ application-based information

<i>information channel</i>” proposed by Meta in the MDT-Meta-Litigation. As explained for limitation [1A] in Ground 1, Meta argued in the MDT-Meta-Litigation that this term should be construed as “a virtual location at the content management site at which user-authored content may be added for transmission to the mobile web site.” (EX-1025, 1-2.) The key feature of this construction is the ability of user-authored content to be added “<i>at a content management site,</i>” which Meta has defined as “a web site that allows a user without programming to create and manage content on a mobile web site, or a portion thereof.” (EX-1025, 3.) The “<i>content management site</i>” corresponds to a website for creating a new club. (EX-1002, ¶229.) With respect to the requirement that the “<i>content management site</i>” permit the user to add “<i>user-authored content,</i>” to the extent not already obvious over Neibauer, this would have been obvious in further view of Harvey. For all other claim limitations, the Ground 1 analysis applies. Harvey discloses techniques for creating on-line communities, which are similar to the web-based clubs disclosed in Neibauer. (Harvey, 4:24-43.) Harvey teaches the ability of a community creator to author content for a community before the community is created. (EX-1002, ¶231.) Harvey	channel” proposed in the litigation. In the event the Board finds it unnecessary to construe this term for this IPR, this ground need not be further considered. As explained for Ground 1, limitation 1[a], Petitioner has argued in the pending litigation that this term should be construed as “<i>a virtual location at the content management site at which user-authored content may be added for transmission to the mobile web site.</i>” (EX1025, at 1-2.) The key feature of this construction, for purposes of Ground 2, is the ability of user-authored content to be added “<i>at a content management site,</i>” which Petitioner has defined in the pending litigation as “<i>a web site that allows a user without programming to create and manage content on a mobile web site, or a portion thereof.</i>” (EX1025, at 3.) The “<i>content management site,</i>” as explained for Ground 1, corresponds to the website for creating and managing a new club based on the proposed combination, and the “<i>mobile website</i>” to the club website made available to club members via mobile devices, under the proposed combination. (EX1002, ¶119.) With respect to the requirement that the “<i>content management site</i>” permit the user to add “<i>user-authored content,</i>” to the extent not already obvious over Neibauer, this would have been obvious in further view of Harvey. With respect to all other claim limitations in the challenged claims, the analysis from Ground 1 applies here. Harvey discloses techniques for allowing
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explains that “[t]he community creating module permits the creator to create a community, and designate applications and content presented in the community by a user interface.” (Harvey, 4:28-30.) A user can access a creating module 165 in order to create a new community. (Harvey, 7:49-56, 8:49-50.) “At step 202, a creator provides community identification information,” such as a community name. (Harvey, 7:58-61.) “At step 210,” Harvey explains, “a configuration editor is presented to a creator. A configuration editor may allow a user to build a community, designate content and application objects, subscribe to subscription objects, and add other information associated with the community.” (Harvey, 8:63-67; <i>see also id.</i>, 9:41-47.) Later, “[a]t step 230, a creator may launch a community.” (Harvey, 12:67-13:1.) Harvey therefore discloses adding content before the community is created. (EX-1002, ¶231.) Users access the community “through browser access to an appropriate website.” (Harvey, 29:59-62.) 543 IPR Petition, pp.67-69	users to create on-line communities in which users can communicate and share information, which are similar to the web-based clubs disclosed in Neibauer. (Harvey, 4:24-43.) The key feature of Harvey here is the ability of a community creator to author content for a community before the community is created and launched. As noted, Harvey explains that “[t]he community creating module permits the creator to create a community, and designate applications and content presented in the community by a user interface.” (Harvey, 4:28-30.) More specifically, a user can access a creating module 165 in order to create a new community, which may include web-based community creation. (Harvey, 7:49-56, 8:49-50.) “At step 202, a creator provides community identification information,” such as a community name. (Harvey, 7:58-61.) “At step 210,” Harvey explains, “a configuration editor is presented to a creator. A configuration editor may allow a user to build a community, designate content and application objects, subscribe to subscription objects, and add other information associated with the community.” (Harvey, 8:63-67; <i>see also id.</i>, 9:41-47.) Later, “[a]t step 230, a creator may launch a community.” (Harvey, 12:67-13:1.) Harvey therefore discloses the ability to add content to a community using the community-creation tool, before the community is created. A user can establish a connection with a community, among other ways, “through browser access to an appropriate website.” (Harvey, 29:59-
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		62.) Ex.2034, pp.65-67
36	Motivation to Combine with Harvey: It would have been obvious to combine the prior art cited for Ground 1 with Harvey, predictably resulting in the club creation user interface in Neibauer with the <i>further</i> ability to allow the club founder to add content to one or more mobile information channels, before the club is created and launched. (EX-1002, ¶232.) This would have satisfied Meta’s proposed construction of “<i>application-based information channel</i>” as “a virtual location at the content management site at which user-authored content may be added for transmission to the mobile web site.” (EX-1002, ¶233.) Under the proposed combination, the “<i>content management site</i>” would have included the web-based interface for allowing the founder to create a Neibauer club and to add content for the club via the application-based information channels, such as initial club messages, initial photos with textual descriptions, etc. (<i>Id.</i>) This information would have been made available for transmission to “<i>the mobile website</i>,” i.e., the club site as delivered to mobile users. (<i>Id.</i>) Harvey is an analogous reference and would have been reasonably pertinent to problems facing the inventors. (EX-1002, ¶234.) A POSITA would have been motivated to combine in order to provide club founders with better customizability	<i>Rationale and Motivation to Combine (with Harvey):</i> It would have been obvious to combine the prior art cited for Ground 1 with Harvey, predictably resulting in the club creation user interface in Neibauer with the <i>further</i> ability to allow the club founder to add content to one or more mobile information channels, before the club is created and launched. This would have satisfied Petitioner’s proposed construction of “application-based information channel” as “<i>a virtual location at the content management site at which user-authored content may be added for transmission to the mobile web site.</i>” Under the proposed combination, therefore, the “<i>content management site</i>” would have included the web-based interface for allowing the founder to create and manage a club disclosed in Neibauer, which would have further permitted the club founder to add content for the club via the mobile information channels, such as initial club messages, initial photos with textual descriptions, and so forth. This information would have been made available for transmission to “<i>the mobile website</i>,” i.e., the club site as delivered to mobile users. (EX1002, ¶¶190-191.) Harvey is an analogous reference and would have been reasonably pertinent to problems facing the inventors. (EX1002, ¶192.) A skilled artisan would have been motivated to combine in order to provide

	allowing them to use the club-creation interface to populate mobile information channels with initial content, <i>before</i> the club is launched. (EX-1002, ¶235.) This would have avoided “blank” clubs devoid of content, because the club would be populated with some initial content before launch, which creates a more engaging club experience. (<i>Id.</i>) A POSITA would also have had a reasonable expectation of success and could have implemented the combination using conventional techniques. (EX-1002, ¶236.) 543 IPR Petition, pp.69-70	club founders with greater customizability for clubs by allowing them to use the club-creation interface to populate mobile information channels with initial content, <i>before</i> the club is made available to other members. (EX1002, ¶193.) This would have allowed the club founder to ensure that other club members would not experience a “blank” club devoid of content, because the club founder would have populated mobile information channels (such as the club message board) with some initial content, thus providing a more engaging club experience for other members, featuring content available from the moment of the club’s creation. (<i>Id.</i>) A skilled artisan would also have had a reasonable expectation of success and could have implemented the combination using conventional techniques. (EX1002, ¶194.) Ex.2034, pp.67-68
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