

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Based on information presently available, Advanced Coding Technologies LLC (“ACT”) contends that Defendant Apple, Inc. (“Defendant” or “Apple”) infringe Claims 1-5 and 7 (the “Asserted Claims”) of U.S. Patent No. 8,230,101 (the “’101 Patent”) through the Accused Products which are manufactured, sold, offered for sale, and/or used by Apple.

Representativeness: Each Accused Product that is capable of iCloud content storage, including at least Apple products such as MacBooks, iPhone, iPod, iPod Touch, and Apple TV is representative of other Accused Products for the purposes of infringement of the ’101 Patent. Based on publicly available information, ACT believes each Accused Product shares substantially the same structure and functionality with respect to the components which are relevant to infringement given that, among other things, the listed products all purport to support iCloud content storage.

Apple directly infringes each of the Asserted Claims by using, importing, testing, selling, and/or offering for sale the Accused Products in violation of 35 U.S.C. § 271(a).

Apple indirectly infringes the Asserted Claims in violation of 35 U.S.C. § 271(b) by inducing third parties, including its users and/or customers, to directly infringe through their operation and use of the Accused Products. Apple has knowingly and intentionally induced this direct infringement by, *inter alia*, (i) selling, importing, or otherwise providing the Accused Products to third parties with the intent that the Accused Products will be operated and used in a manner that practices the Asserted Claim; and (ii) marketing and advertising the Accused Products. Apple’s marketing and promotional materials for the Accused Products are found, for example, on Apple’s website, and in App stores of operating systems for which the Accused Products are made available. For example, Apple’s website offers customers instructions and/or manuals for the Accused Products that instruct customers to, among other things, use the accused functionality in the Accused Products. Apple’s website also offers support to customers, including instruction to, among other things, use the Accused Products. On information and belief, Apple knows that its actions will result in infringement of the Asserted Claims, or subjectively believes that there is a high probability that its actions will result in infringement of the Asserted Claims but has taken deliberate actions to avoid learning these facts.

Plaintiff contends that the Accused Products perform each step of the claimed methods. Plaintiff contends that use, testing, and qualification of the Accused Products by Apple itself, as well as use by customers and end-users of the Accused Products, perform each step of the claimed methods. On information and belief, backend servers, under the direction and control of the Accused Products, may perform certain steps of the claimed methods. Apple, its customers, and users of the Accused Products derive benefits from their infringement.

On information and belief, the charted version of Apple’s products is representative of all versions of the Accused Products, including all variants of the Accused Products made, sold, offered for sale, or used on any operating system.

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

ACT does not concede that any claims of the '101 Patent that are not listed below are not infringed by the identified Accused Products. Moreover, the citations to certain documents and other information below are intended to be exemplary only and in no way foreclose ACT from citing or relying on additional documents, information, source code, and/or testimony at a later time. These contentions are preliminary in nature, and an analysis of Apple's products, internal documentation, source code, and/or testimony from relevant witnesses may more fully and accurately describe the infringing features of its Accused Products. Accordingly, ACT reserves the right to supplement, correct, modify, and/or amend these contentions once such additional information is made available to ACT. Furthermore, ACT reserves the right to supplement, correct, modify, and/or amend these contentions as discovery in this case progresses; in view of the Court's claim construction order(s); in view of any positions taken by Apple including, but not limited to, positions on claim construction, invalidity, and/or non-infringement; and in connection with the preparation and exchange of expert reports.

The contents of every below claim cell on which another claim cell depends are expressly incorporated by reference in that dependent cell, as if set forth in their entirety therein.

Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple's Accused Products
[1P] A server device for media, the server device for media comprising:	<p>The Apple Accused Products are each: A server device for media, the server device for media. Apple directly infringes by using, importing, testing, selling, and/or offering for sale devices having the Apple Accused Products.</p> <p>For example, an Apple product, such as a MacBook, iPhone, iPad, iPod Touch, or Apple TV, uses cloud storage such as iCloud to store and deliver the content upon request. The content to be streamed is stored at Apple web servers (i.e., a server device for media which is equipped with an internal storage device for storing digital contents) and delivered to the client device. While delivering the content Apple uses content caching technology to copy the accessed content from the server to local network cache storage efficient access of the content.</p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	<p align="center">Types of Cached Content</p> <p>Content caching includes, but is not limited to, these content types:</p> <p>macOS</p> <ul style="list-style-type: none"> • Apple Books content • Apps and app updates from the Mac App Store • GarageBand downloadable content • iCloud data caching (photos and documents) • macOS installers downloaded from the App Store or softwareupdate --fetch-full installer • macOS updates and Internet Recovery images • Xcode downloadable components such as simulators • Rosetta <p>iOS, iPadOS, and tvOS</p> <ul style="list-style-type: none"> • Apple Books content • Apple TV screensavers • Apple TV updates (over the air) • Certain mobile assets, such as Siri high-quality voices and language dictionaries, and more • iCloud data caching (photos and documents) for iOS and iPadOS • iOS and iPadOS updates (over the air) • iPhone, iPad, and Apple TV apps and app updates • On-demand resources support for iOS, iPadOS, and tvOS <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	<div data-bbox="410 625 678 919" style="text-align: center;"> </div> <p data-bbox="781 674 1442 869" style="border: 1px solid orange; padding: 5px; margin: 10px auto; width: fit-content;"> <i>With content caching, when a device on your network downloads content from an Apple content server, the content caching service running on your Mac keeps a copy of the content. When another device on your network requests to download the same content, the update is served from the content cache rather than downloaded from the Apple content server.</i> </p> <p data-bbox="613 961 1263 993" style="text-align: center;">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p> <p data-bbox="386 1020 1482 1104">Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>
<p>[1A] an internal storage device for storing digital contents, wherein the server device for media responds to a data transmission request from a network player by stream-delivering corresponding data in corresponding digital contents from the internal storage</p>	<p>The Apple Accused Products comprise: an internal storage device for storing digital contents, wherein the server device for media responds to a data transmission request from a network player by stream-delivering corresponding data in corresponding digital contents from the internal storage device to the network player during connection to a network.</p> <p>For example, when a client device (i.e., network player) requests content from an Apple content server storage (i.e., internal storage), the Apple server responds by delivering the content to the client device (i.e., network player) requesting the content (i.e., responds to a data transmission request from a network player by stream-delivering corresponding data in corresponding digital contents from the internal storage device to the network player during connection to a network).</p>

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Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
<p>device to the network player during connection to a network;</p>	<div data-bbox="412 627 649 932" data-label="Diagram"> </div> <div data-bbox="721 663 1385 863" data-label="Text"> <p><i>With content caching</i>, when a device on your network downloads content from an Apple content server, the content caching service running on your Mac keeps a copy of the content. When another device on your network requests to download the same content, the update is served from the content cache rather than downloaded from the Apple content server.</p> </div> <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p> <div data-bbox="391 989 1377 1192" data-label="Text"> <p>When an Apple device on your network tries to download Apple content that could be cached, the Apple content server instructs the device to check with the local network’s cache first. If the content isn’t available there, the content cache requests the content from the Apple server and stores it in the local network’s cache. That content is then available for other Apple devices to retrieve without downloading it from the internet. Because a local network normally shares data much faster than the internet, subsequent devices can download cached content faster. Supported content includes operating-system updates, apps, books, iCloud content, and more.</p> </div> <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p> <p>Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>
<p>[1B] a transfer control unit adapted to transfer and store part of held digital contents in the</p>	<p>The Apple Accused Products comprise: a transfer control unit adapted to transfer and store part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein said transfer control unit does not transfer, from the internal storage device to the network storage device, the digital contents that cannot be</p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
<p>internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein said transfer control unit does not transfer, from the internal storage device to the network storage device, the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents from the internal storage device to the network storage device;</p>	<p>recovered if a network failure occurs during the transferring of the digital contents from the internal storage device to the network storage device.</p> <p>For example, when a client device sends a request to access the content file (i.e., digital content) stored at the Apple server (i.e. server device), the response delivers the content file and saves/caches a copy of the content to the local network storage. For ex., when a user accesses the content stored at the Apple server and the requested content is not present at the caching infrastructure, the requested content is delivered from the origin servers and cached at caching infrastructure such as local network storage (i.e., transferring and storing part of held digital contents in the internal storage device to a network storage device). In addition to this, due to certain policy restrictions, not all the content is allowed to be cached (i.e., and wherein the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents are not transferred from the internal storage device to the network storage device;) therefore the server device avoids transferring that non-cachable content to caching infrastructure including CDN (i.e., the digital contents are not transferred from the internal storage device to the network storage device).</p> <p align="center">How content caching works</p> <div style="border: 1px solid orange; padding: 5px;"> <p>After you turn on content caching on a Mac, the Mac keeps a copy of all content that devices (called <i>clients</i>) on the local network can download. Content can also be downloaded from multiple iPhone or iPad devices if they're tethered to a Mac using a card or USB hub. You can specify ranges of client IP addresses (for example, one or two subnets) that a content cache is best positioned to serve, and optionally you can make that content exclusive to those clients by choosing the "Devices using custom local networks" option. The options are:</p> </div> <p align="center">Source: https://support.apple.com/en-in/guide/deployment/depde72e125f/web</p>

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Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	<div data-bbox="410 632 669 928" data-label="Diagram"> </div> <div data-bbox="781 674 1446 869" data-label="Text"> <p><i>With content caching</i>, when a device on your network downloads content from an Apple content server, the content caching service running on your Mac keeps a copy of the content. When another device on your network requests to download the same content, the update is served from the content cache rather than downloaded from the Apple content server.</p> </div> <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p> <div data-bbox="391 1003 1312 1199" data-label="Text"> <p>When an Apple device on your network tries to download Apple content that could be cached, the Apple content server instructs the device to check with the local network’s cache first. If the content isn’t available there, the content cache requests the content from the Apple server and stores it in the local network’s cache. That content is then available for other Apple devices to retrieve without downloading it from the internet. Because a local network normally shares data much faster than the internet, subsequent devices can download cached content faster. Supported content includes operating-system updates, apps, books, iCloud content, and more.</p> </div> <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p> <div data-bbox="477 1272 1382 1371" data-label="Text"> <p>For example, when the first client on your network downloads a macOS update, the content cache keeps a copy of the update. When the next client on the network connects to the App Store to download the update, the update is copied from the content cache rather than from the App Store.</p> </div> <p>Because the local network is normally much faster than the internet, the second client (and all subsequent clients) download updates much faster.</p> <p align="center">Source: https://support.apple.com/en-in/guide/deployment/depde72e125f/web</p>

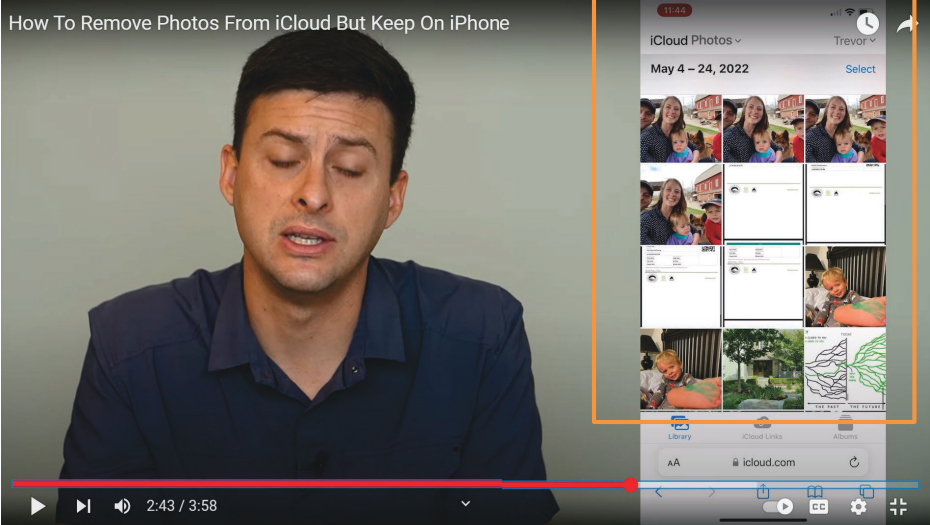
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Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	<p align="center">Country and region restrictions</p> <ul style="list-style-type: none"> • Not all content is cached in all regions. • iTunes downloads are not cached in Brazil, Mexico, China mainland, or Portugal. Apple Books downloads are not cached in Canada. • When macOS content caching is enabled, the IP address and region of a Mac computer are registered with Apple. To cache iTunes and App Store content, the registered region of the macOS content cache must match the region of the client Apple ID accounts. <p align="center">Source: https://support.apple.com/en-us/102860</p> <p>Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>
<p>[1C] a list information transmission unit adapted to respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device.</p>	<p>The Apple Accused Products comprise: a list information transmission unit adapted to respond to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device.</p> <p>For example, when a client device (e.g., an iPhone) requests to present the list of photos via its photos application (i.e., Network Player) the Apple server (e.g., iCloud) presents the application with a list of photos if some of these photos are already accessed by the device and if the device uses the content cache the list also includes the content stored in the local storage as well server. Additionally, the list of content stored at local network storage can also be accessed. Thus, the device lists both the content stored at the Apple servers as well as the content present at the local network storage. Users may also view the various log matrices that indicate</p>

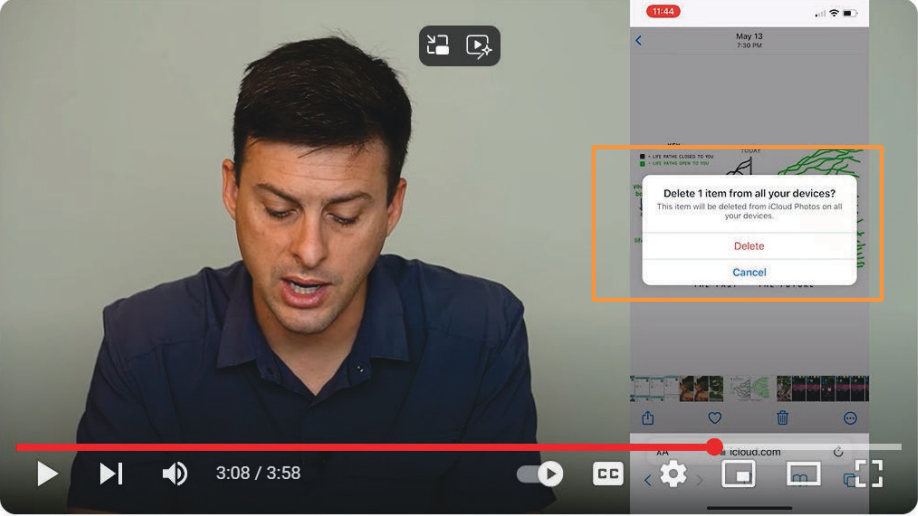
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Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
<p>information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device;</p>	<p>how much content is served from Apple servers, and how much is from local network storage. The properties of such databases indicate that the content list presented is in a structured format and follows the tree structure.</p> <hr/> <p>Types of Cached Content</p> <p>Content caching includes, but is not limited to, these content types:</p> <p>macOS</p> <ul style="list-style-type: none"> • Apple Books content • Apps and app updates from the Mac App Store • GarageBand downloadable content • iCloud data caching (photos and documents) • macOS installers downloaded from the App Store or <code>softwareupdate --fetch-full installer</code> • macOS updates and Internet Recovery images • Xcode downloadable components such as simulators • Rosetta <p>iOS, iPadOS, and tvOS</p> <ul style="list-style-type: none"> • Apple Books content • Apple TV screensavers • Apple TV updates (over the air) • Certain mobile assets, such as Siri high-quality voices and language dictionaries, and more • iCloud data caching (photos and documents) for iOS and iPadOS • iOS and iPadOS updates (over the air) • iPhone, iPad, and Apple TV apps and app updates • On-demand resources support for iOS, iPadOS, and tvOS <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p>

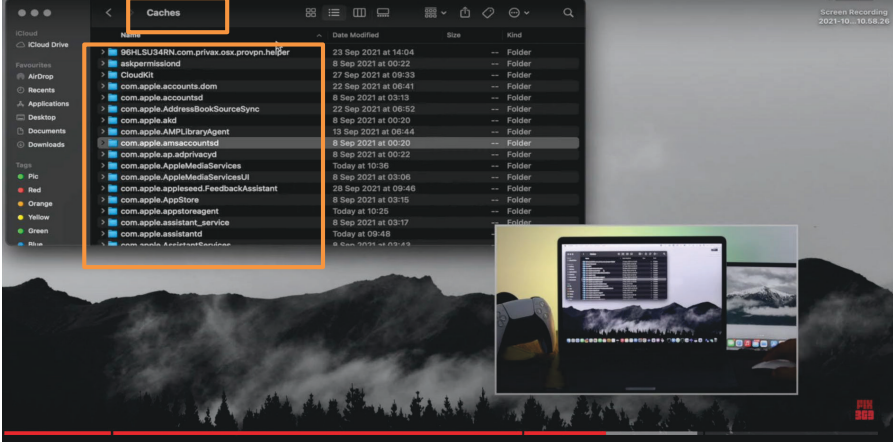
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Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple's Accused Products
	<p data-bbox="480 615 980 642">How To Remove Photos From iCloud But Keep On iPhone</p>  <p data-bbox="605 1142 1268 1169">Source: https://www.youtube.com/watch?v=JTpja1TGIWc, at 2:43</p>

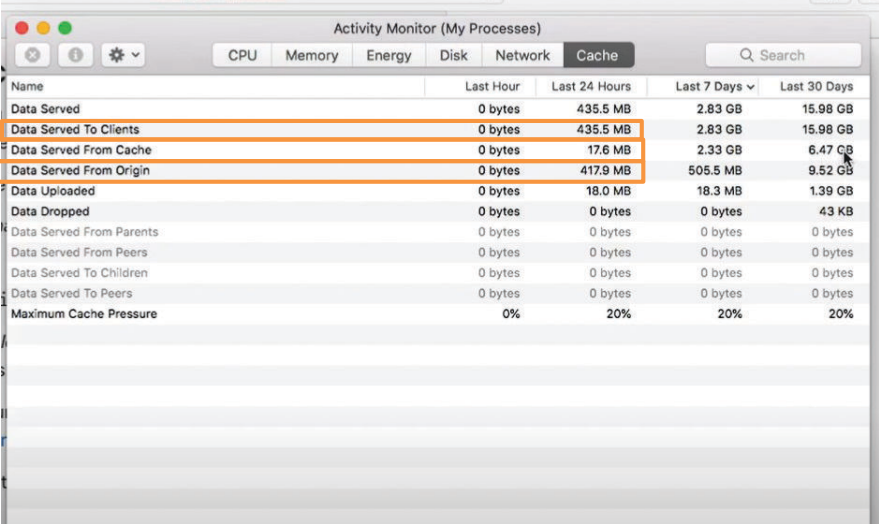
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Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	 <p>Source: https://www.youtube.com/watch?v=JTpja1TGIWc, at 3:08</p>

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Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple's Accused Products
	 <p>Source: https://www.youtube.com/watch?v=K1yX1n360dU, at 2:37</p>

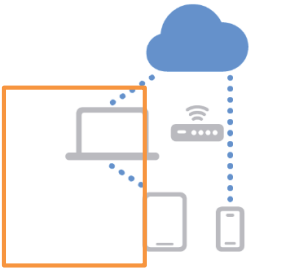
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Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products																																																												
	 <p>The screenshot shows the 'Cache' tab in Activity Monitor. The table below represents the data shown in the screenshot:</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Last Hour</th> <th>Last 24 Hours</th> <th>Last 7 Days</th> <th>Last 30 Days</th> </tr> </thead> <tbody> <tr> <td>Data Served</td> <td>0 bytes</td> <td>435.5 MB</td> <td>2.83 GB</td> <td>15.98 GB</td> </tr> <tr> <td>Data Served To Clients</td> <td>0 bytes</td> <td>435.5 MB</td> <td>2.83 GB</td> <td>15.98 GB</td> </tr> <tr> <td>Data Served From Cache</td> <td>0 bytes</td> <td>17.6 MB</td> <td>2.33 GB</td> <td>6.47 GB</td> </tr> <tr> <td>Data Served From Origin</td> <td>0 bytes</td> <td>417.9 MB</td> <td>505.5 MB</td> <td>9.52 GB</td> </tr> <tr> <td>Data Uploaded</td> <td>0 bytes</td> <td>18.0 MB</td> <td>18.3 MB</td> <td>1.39 GB</td> </tr> <tr> <td>Data Dropped</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>43 KB</td> </tr> <tr> <td>Data Served From Parents</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> </tr> <tr> <td>Data Served From Peers</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> </tr> <tr> <td>Data Served To Children</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> </tr> <tr> <td>Data Served To Peers</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> </tr> <tr> <td>Maximum Cache Pressure</td> <td>0%</td> <td>20%</td> <td>20%</td> <td>20%</td> </tr> </tbody> </table> <p>Source: https://www.youtube.com/watch?v=babMxI-eh3E, at 4:53</p> <p>Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>	Name	Last Hour	Last 24 Hours	Last 7 Days	Last 30 Days	Data Served	0 bytes	435.5 MB	2.83 GB	15.98 GB	Data Served To Clients	0 bytes	435.5 MB	2.83 GB	15.98 GB	Data Served From Cache	0 bytes	17.6 MB	2.33 GB	6.47 GB	Data Served From Origin	0 bytes	417.9 MB	505.5 MB	9.52 GB	Data Uploaded	0 bytes	18.0 MB	18.3 MB	1.39 GB	Data Dropped	0 bytes	0 bytes	0 bytes	43 KB	Data Served From Parents	0 bytes	0 bytes	0 bytes	0 bytes	Data Served From Peers	0 bytes	0 bytes	0 bytes	0 bytes	Data Served To Children	0 bytes	0 bytes	0 bytes	0 bytes	Data Served To Peers	0 bytes	0 bytes	0 bytes	0 bytes	Maximum Cache Pressure	0%	20%	20%	20%
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<p>[1D] a search unit adapted to respond to a data transmission request for the held digital contents from the network player by</p>	<p>The Apple Accused Products comprise: a search unit adapted to respond to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored.</p> <p>For example, when an Apple device on a network tries to download Apple content that could be cached, the Apple content server instructs the device to search the content with the local network’s cache first. If the content is not available there, the content cache requests the content from the Apple server and stores it in the</p>																																																												

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<p>searching for a location where the held digital contents are currently stored; and</p>	<p>local network’s cache.</p> <p>When an Apple device on your network tries to download Apple content that could be cached, the Apple content server instructs the device to check with the local network’s cache first. If the content isn’t available there, the content cache requests the content from the Apple server and stores it in the local network’s cache. That content is then available for other Apple devices to retrieve without downloading it from the internet. Because a local network normally shares data much faster than the internet, subsequent devices can download cached content faster. Supported content includes operating-system updates, apps, books, iCloud content, and more.</p> <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p> <p>Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>
<p>[1E] a digital contents data transmission processing unit adapted to allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device,</p>	<p>The Apple Accused Products comprise: a digital contents data transmission processing unit adapted to allow the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device.</p> <p>For example, when an Apple device on your network tries to download Apple content that could be cached, the Apple content server instructs the device to check with the local network’s cache first. If the content is available with the content cache it is delivered to the client device from the local network’s cache (i.e., allowing the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player).</p> <p>How content caching works</p> <p>After you turn on content caching on a Mac, the Mac keeps a copy of all content that devices (called <i>clients</i>) on the local network can download. Content can also be downloaded from multiple iPhone or iPad devices if they’re tethered to a Mac using a cart or USB hub. You can specify ranges of client IP addresses (for example, one or two subnets) that a content cache is best positioned to serve, and optionally you can make that content exclusive to those clients by choosing the “Devices using custom local networks” option. The options are:</p>



Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	<p data-bbox="553 604 1321 632">Source: https://support.apple.com/en-in/guide/deployment/depde72e125f/web</p> <div data-bbox="397 667 1312 934">  <div data-bbox="695 695 1312 894" style="border: 1px solid orange; padding: 5px;"> <p data-bbox="792 716 1352 873"><i>With content caching, when a device on your network downloads content from an Apple content server, the content caching service running on your Mac keeps a copy of the content. When another device on your network requests to download the same content, the update is served from the content cache rather than downloaded from the Apple content server.</i></p> </div> </div> <p data-bbox="610 957 1263 984">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p> <p data-bbox="529 1005 1450 1293">You can use content caching on networks that use network address translation (NAT) for the content cache and all devices, on networks consisting of publicly routable IP addresses, and optionally for devices tethered to a Mac (for example, when provisioning many devices at once using Apple Configurator). Apple devices automatically contact a nearby content cache without any configuration by using a lookup service that maps client private and public IP addresses to configurations registered with Apple from Mac computers with content caching turned on. Because any Apple device on a network silently and automatically uses content caching if available, detailed information on individual assets requested by individual specific clients is not available for privacy reasons. You can, however, query aggregate content caching usage statistics to help measure and gauge performance. For more information, see Plan for and set up content caching.</p> <p data-bbox="553 1314 1321 1341">Source: https://support.apple.com/en-in/guide/deployment/depde72e125f/web</p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	<p data-bbox="532 611 1482 804">When an Apple device on your network tries to download Apple content that could be cached, the Apple content server instructs the device to check with the local network’s cache first. If the content isn’t available there, the content cache requests the content from the Apple server and stores it in the local network’s cache. That content is then available for other Apple devices to retrieve without downloading it from the internet. Because a local network normally shares data much faster than the internet, subsequent devices can download cached content faster. Supported content includes operating-system updates, apps, books, iCloud content, and more.</p> <p data-bbox="613 827 1263 852">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p> <p data-bbox="540 884 1482 972">For example, when the first client on your network downloads a macOS update, the content cache keeps a copy of the update. When the next client on the network connects to the App Store to download the update, the update is copied from the content cache rather than from the App Store.</p> <p data-bbox="545 989 1446 1037">Because the local network is normally much faster than the internet, the second client (and all subsequent clients) download updates much faster.</p> <p data-bbox="553 1083 1321 1108">Source: https://support.apple.com/en-in/guide/deployment/depde72e125f/web</p> <p data-bbox="386 1152 1482 1234">Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>
[1F] wherein the server device for media is a media player.	<p data-bbox="386 1268 1317 1293">The Apple Accused Products comprise: wherein the server device for media is a media player.</p> <p data-bbox="386 1325 1482 1402">For example, the content at Apple’s servers can be played/streamed using various client software (e.g., iTunes, AppleTV, etc.) developed by Apple. The Apple servers (i.e., server devices for media) in integration with such client software, play and/or stream the media files. Therefore, Apple servers act as a media player.</p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	<p data-bbox="516 625 1170 657">Find and watch iTunes movies and TV shows</p> <ol data-bbox="521 678 992 741" style="list-style-type: none"><li data-bbox="521 678 992 699">1. Open iTunes Movies  or TV Shows  on Apple TV.<li data-bbox="521 720 992 741">2. In the menu bar, navigate to any of the following categories: <ul data-bbox="553 772 1360 961" style="list-style-type: none"><li data-bbox="553 772 1360 825">• <i>Purchased</i>: See the movies you’ve purchased on the iTunes Store, including purchases made on other iOS or iPadOS devices and purchases by Family Sharing members.<li data-bbox="553 856 1146 877">• <i>Top Movies</i> or <i>Top TV Shows</i>: Browse the top items in the iTunes Store.<li data-bbox="553 909 1360 961">• <i>Wish List/Favourites</i>: Find items you’ve added to your Wish List (Movies) or Favourites (TV shows) but haven’t yet purchased or rented. <p data-bbox="602 993 1268 1024">Source: https://support.apple.com/en-in/guide/tv/atvb53d6cfb4/tvos</p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	<p align="center">Types of Cached Content</p> <p>Content caching includes, but is not limited to, these content types:</p> <p>macOS</p> <ul style="list-style-type: none"> • Apple Books content • Apps and app updates from the Mac App Store • GarageBand downloadable content • iCloud data caching (photos and documents) • macOS installers downloaded from the App Store or softwareupdate --fetch-full installer • macOS updates and Internet Recovery images • Xcode downloadable components such as simulators • Rosetta <p>iOS, iPadOS, and tvOS</p> <ul style="list-style-type: none"> • Apple Books content • Apple TV screensavers • Apple TV updates (over the air) • Certain mobile assets, such as Siri high-quality voices and language dictionaries, and more • iCloud data caching (photos and documents) for iOS and iPadOS • iOS and iPadOS updates (over the air) • iPhone, iPad, and Apple TV apps and app updates • On-demand resources support for iOS, iPadOS, and tvOS <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
	<div data-bbox="397 625 592 882"> </div> <div data-bbox="691 659 1286 858" style="border: 1px solid orange; padding: 5px;"> <p><i>With content caching, when a device on your network downloads content from an Apple content server, the content caching service running on your Mac keeps a copy of the content. When another device on your network requests to download the same content, the update is served from the content cache rather than downloaded from the Apple content server.</i></p> </div> <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/.</p> <p>Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>
<p>[2] The server device for media according to claim 1, wherein said digital contents data transmission processing unit causes the network storage device to transmit the corresponding data to the server device for media, and then transmits the corresponding data</p>	<p>The Apple Accused Products comprise: The server device for media according to claim 1, wherein said digital contents data transmission processing unit causes the network storage device to transmit the corresponding data to the server device for media, and then transmits the corresponding data received from the network storage device from the server device for media to the network player.</p> <p><i>See Claim [1E]. As shown below, the digital contents data transmission processing unit causes the network cache such as iCloud to transmit the data to the server (local network cache) for the ultimate transmission to the client device for playing.</i></p> <p><small>When an Apple device on your network tries to download Apple content that could be cached, the Apple content server instructs the device to check with the local network’s cache first. If the content isn’t available there, the content cache requests the content from the Apple server and stores it in the local network’s cache. That content is then available for other Apple devices to retrieve without downloading it from the internet. Because a local network normally shares data much faster than the internet, subsequent devices can download cached content faster. Supported content includes operating-system updates, apps, books, iCloud content, and more.</small></p> <p>Source: https://it-training.apple.com/tutorials/deployment/dm070/</p>

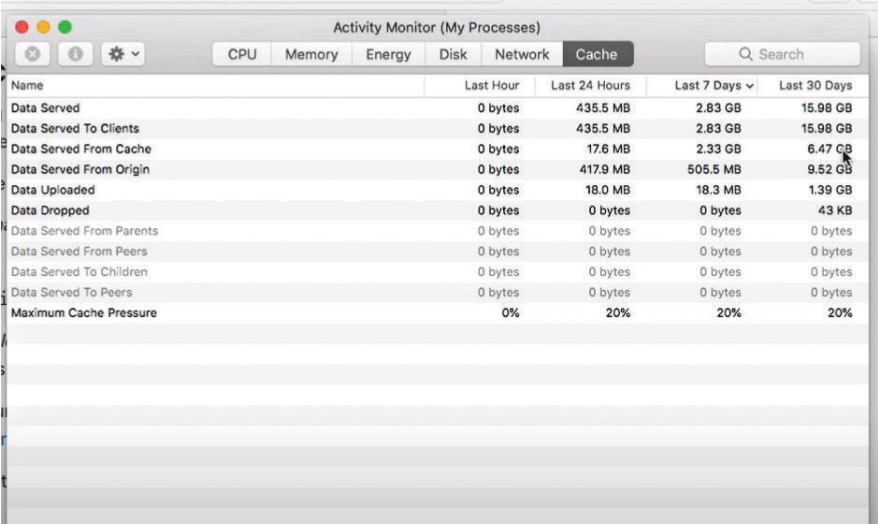
Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
received from the network storage device from the server device for media to the network player.	Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.
[3] The server device for media according to claim 1, wherein said digital contents data transmission processing unit transmits the corresponding data and information for identifying the network storage device to the network player, and causes the network storage device to directly transmit the corresponding data to the network player.	<p>The Apple Accused Products comprise: The server device for media according to claim 1, wherein said digital contents data transmission processing unit transmits the corresponding data and information for identifying the network storage device to the network player, and causes the network storage device to directly transmit the corresponding data to the network player.</p> <p><i>See Claim [1E]. As shown below, the digital contents data transmission processing unit transmits corresponding data and information for identification of the network storage device to the network player such as “the content cache [that] is best positioned to serve” “specif[ied] ranges of client IP addresses.”</i></p> <p>How content caching works</p> <p>After you turn on content caching on a Mac, the Mac keeps a copy of all content that devices (called <i>clients</i>) on the local network can download. Content can also be downloaded from multiple iPhone or iPad devices if they’re tethered to a Mac using a cart or USB hub. You can specify ranges of client IP addresses (for example, one or two subnets) that a content cache is best positioned to serve, and optionally you can make that content exclusive to those clients by choosing the “Devices using custom local networks” option. The options are:</p> <p align="center">Source: https://support.apple.com/en-in/guide/deployment/depde72e125f/web</p> <p>Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>
[4] The server device for media	The Apple Accused Products comprise: The server device for media according to claim 1, further comprising

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
<p>according to claim 1, further comprising a return control unit adapted to cause the digital contents corresponding to a predetermined condition among the digital contents which have been transferred to the network storage device to be returned from the network storage device to the internal storage device.</p>	<p>a return control unit adapted to cause the digital contents corresponding to a predetermined condition among the digital contents which have been transferred to the network storage device to be returned from the network storage device to the internal storage device.</p> <p>For example, digital contents that meet a certain predetermined condition, such as data or memory limit, may be returned from the network storage device to the internal storage device (local network cache) since a local network shares data much faster than the Internet (the network storage device).</p> <p>When an Apple device on your network tries to download Apple content that could be cached, the Apple content server instructs the device to check with the local network’s cache first. If the content isn’t available there, the content cache requests the content from the Apple server and stores it in the local network’s cache. That content is then available for other Apple devices to retrieve without downloading it from the internet. Because a local network normally shares data much faster than the internet, subsequent devices can download cached content faster. Supported content includes operating-system updates, apps, books, iCloud content, and more.</p> <p align="center">Source: https://it-training.apple.com/tutorials/deployment/dm070/</p> <p>Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>
<p>[5] The server device for media according to claim 1, wherein said list information transmission unit makes the list information to be transmitted to the network player include information</p>	<p>The Apple Accused Products comprise: The server device for media according to claim 1, wherein said list information transmission unit makes the list information to be transmitted to the network player include information for identifying whether each digital content is currently stored in the internal storage device or the network storage device in the display list of the network player.</p> <p>For example, as shown below, the list information transmission unit lists information identifying the source of the digital content, e.g., origin or cache, that can correspond to the internal storage device (local server storage) or network storage device (iCloud).</p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products																																																												
<p>for identifying whether each digital content is currently stored in the internal storage device or the network storage device in the display list of the network player.</p>	 <p>The screenshot shows the 'Cache' tab in macOS Activity Monitor. The table below represents the data shown in the image:</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Last Hour</th> <th>Last 24 Hours</th> <th>Last 7 Days</th> <th>Last 30 Days</th> </tr> </thead> <tbody> <tr> <td>Data Served</td> <td>0 bytes</td> <td>435.5 MB</td> <td>2.83 GB</td> <td>15.98 GB</td> </tr> <tr> <td>Data Served To Clients</td> <td>0 bytes</td> <td>435.5 MB</td> <td>2.83 GB</td> <td>15.98 GB</td> </tr> <tr> <td>Data Served From Cache</td> <td>0 bytes</td> <td>17.6 MB</td> <td>2.33 GB</td> <td>6.47 GB</td> </tr> <tr> <td>Data Served From Origin</td> <td>0 bytes</td> <td>417.9 MB</td> <td>505.5 MB</td> <td>9.52 GB</td> </tr> <tr> <td>Data Uploaded</td> <td>0 bytes</td> <td>18.0 MB</td> <td>18.3 MB</td> <td>1.39 GB</td> </tr> <tr> <td>Data Dropped</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>43 KB</td> </tr> <tr> <td>Data Served From Parents</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> </tr> <tr> <td>Data Served From Peers</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> </tr> <tr> <td>Data Served To Children</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> </tr> <tr> <td>Data Served To Peers</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> <td>0 bytes</td> </tr> <tr> <td>Maximum Cache Pressure</td> <td>0%</td> <td>20%</td> <td>20%</td> <td>20%</td> </tr> </tbody> </table> <p>Source: https://www.youtube.com/watch?v=babMxI-eh3E, at 4:53</p> <p>Further, to the extent this element is performed at least in part by software source code, ACT reserves the right to supplement these contentions pursuant to production of such source code and to the extent Defendants require additional information in accordance with P.R. 3-1 and for any other reasons.</p>	Name	Last Hour	Last 24 Hours	Last 7 Days	Last 30 Days	Data Served	0 bytes	435.5 MB	2.83 GB	15.98 GB	Data Served To Clients	0 bytes	435.5 MB	2.83 GB	15.98 GB	Data Served From Cache	0 bytes	17.6 MB	2.33 GB	6.47 GB	Data Served From Origin	0 bytes	417.9 MB	505.5 MB	9.52 GB	Data Uploaded	0 bytes	18.0 MB	18.3 MB	1.39 GB	Data Dropped	0 bytes	0 bytes	0 bytes	43 KB	Data Served From Parents	0 bytes	0 bytes	0 bytes	0 bytes	Data Served From Peers	0 bytes	0 bytes	0 bytes	0 bytes	Data Served To Children	0 bytes	0 bytes	0 bytes	0 bytes	Data Served To Peers	0 bytes	0 bytes	0 bytes	0 bytes	Maximum Cache Pressure	0%	20%	20%	20%
Name	Last Hour	Last 24 Hours	Last 7 Days	Last 30 Days																																																									
Data Served	0 bytes	435.5 MB	2.83 GB	15.98 GB																																																									
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Data Served To Children	0 bytes	0 bytes	0 bytes	0 bytes																																																									
Data Served To Peers	0 bytes	0 bytes	0 bytes	0 bytes																																																									
Maximum Cache Pressure	0%	20%	20%	20%																																																									
<p>[7P] A method for controlling a server device for media which is equipped with an internal storage device for storing digital contents, the method</p>	<p>Users of the Apple Accused Products perform a method for controlling a server device for media which is equipped with an internal storage device for storing digital contents. Apple directly infringes and induces infringement by causing a user to perform the claimed method on the Apple Accused Products. Users of the Apple Accused Products directly infringe by using the Apple Accused Products. Apple induces infringement by users by supplying the Apple Accused Products and instructing and encouraging users to use the Apple Accused Products in an infringing manner.</p> <p><i>See Claim [1P].</i></p>																																																												

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
comprising the steps of:	
[7A] responding to a data transmission request from a network player by stream-delivering corresponding data in corresponding digital contents from the internal storage device to the network player during connection to a network;	<p>Users of the Apple Accused Products perform responding to a data transmission request from a network player by stream-delivering corresponding data in corresponding digital contents from the internal storage device to the network player during connection to a network.</p> <p><i>See Claim [1A].</i></p>
[7B] transferring and storing part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein the digital contents that cannot be recovered if a network failure occurs during the	<p>Users of the Apple Accused Products perform transferring and storing part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents are not transferred from the internal storage device to the network storage device.</p> <p><i>See Claim [1B].</i></p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
<p>transferring of the digital contents are not transferred from the internal storage device to the network storage device;</p>	
<p>[7C] responding to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree</p>	<p>Users of the Apple Accused Products perform responding to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device.</p> <p><i>See Claim [1C].</i></p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device;	
[7D] responding to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored; and	<p>Users of the Apple Accused Products perform responding to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored.</p> <p><i>See Claim [1D].</i></p>
[7E] allowing the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device,	<p>Users of the Apple Accused Products perform allowing the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device.</p> <p><i>See Claim [1E].</i></p>
[7F] wherein the service device for	<p>Users of the Apple Accused Products perform the claimed method wherein the service device for media is a media player.</p>

Appendix E-1 - Claim Chart for U.S. Patent No. 8,230,101 Against Apple Products with iCloud Storage

Claim – 8,230,101	Exemplary Supporting Evidence Regarding Apple’s Accused Products
media is a media player.	<i>See Claim [1F].</i>