
PELOTON INTERACTIVE, INC.,

Petitioner

V.

NEC CORPORATION,

Patent Owner

IPR2023-01240

IPR2023-01241

U.S. Patent No. 9,769,427

Petitioner's Demonstratives

November 8, 2024 Oral Hearing

Demonstrative Exhibit – Not Evidence

Grounds of unpatentability

Trial instituted on all asserted grounds and all challenged claims:

Ground 1	Ueda, SIP Standard, and SDP Standard (claims 1, 4-9, 10, 12, 14, 16, 18, 20, 21, 22, 32, 33 and 34-36)
Ground 2	Ueda, SIP Standard, and Bechtolsheim (claims 1, 4-9, 10, 12, 14, 16, 18, 20, 21, 22, 32, 33 and 34-36)
Ground 3	Ueda, SIP Standard, SDP Standard, and Cohee (claims 2, 3, 11, 13, 15, 17, 19, and 23)
Ground 4	Ueda, SIP Standard, Bechtolsheim, and Cohee (claims 2, 3, 11, 13, 15, 17, 19, and 23)

Claims challenged in IPR2023-01240

Claims challenged in IPR2023-01241

[-40] Institution Decision (Paper 16) at 2, 46

[-41] Institution Decision (Paper 17) at 2, 49

Disputed issues

- **Ueda eligibility as prior art**
- **Ground 1: Ueda, SIP Standard, and SDP Standard**
 - Limitation 1[g] / 10[j] (...guaranteeing a communication bandwidth...)
 - Limitation 1[g] / 10[j] (at a same time... transmit the play-list information...)
 - Motivation to combine
- **Ground 2: Ueda, SIP Standard, and Bechtolsheim**
 - Limitation 1[g] / 10[j] (...guaranteeing a communication bandwidth...)
 - Limitation 1[g] / 10[j] (at a same time... transmit the play-list information...)
 - Motivation to combine

No disputes about any other limitations of independent claim 1 / 10, nor about any dependent claims

[-40] See generally POR (Paper 20); Pet. Reply (Paper 26); P.O. Sur-Reply (Paper 27)

[-41] See generally POR (Paper 21); Pet. Reply (Paper 28); P.O. Sur-Reply (Paper 29)

Disputed issues

- **Ground 3: Ueda, SIP Standard, SDP Standard, Cohee**
 - Motivation to combine
- **Ground 4: Ueda, SIP Standard, Bechtolsheim, Cohee**
 - Motivation to combine
- ***No additional disputes about any limitations specific to the challenged dependent claims.***

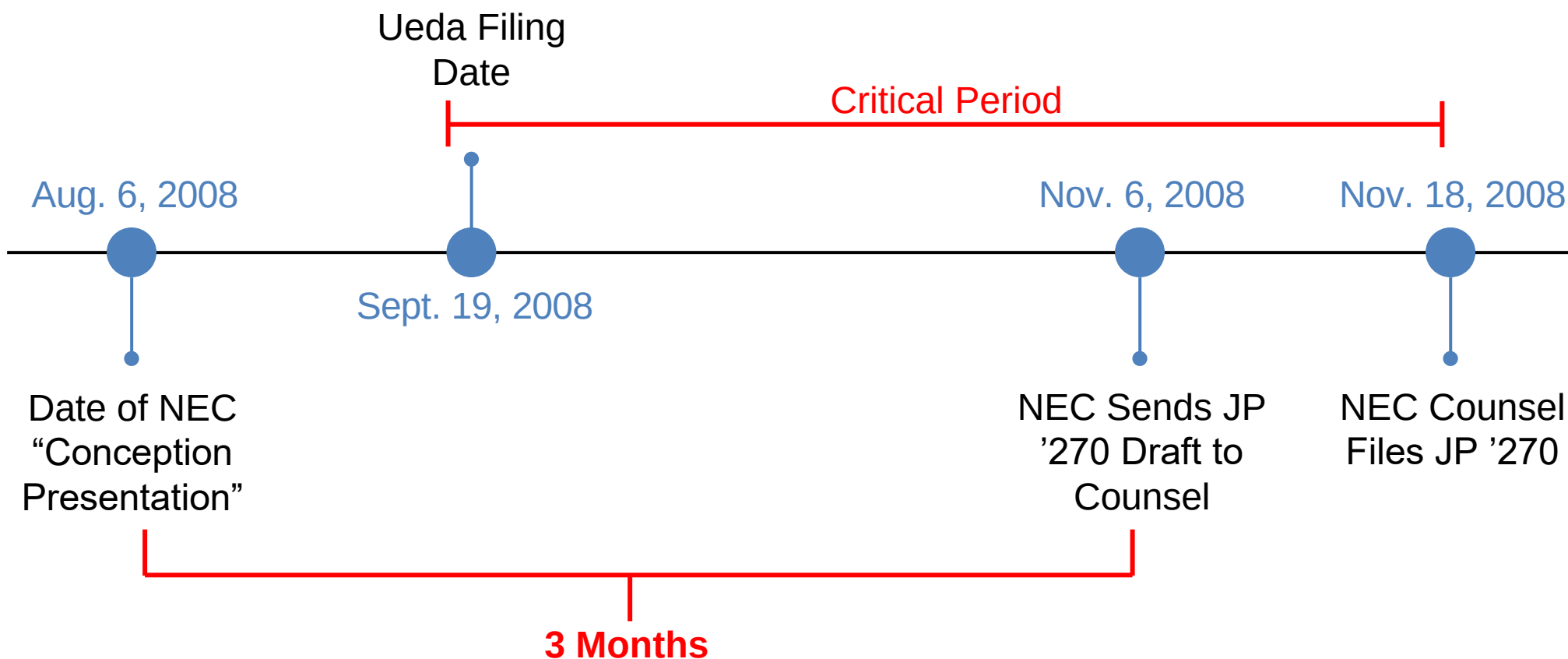
[-40] See generally POR (Paper 20); Pet. Reply (Paper 26); P.O. Sur-Reply (Paper 27)

[-41] See generally POR (Paper 21); Pet. Reply (Paper 28); P.O. Sur-Reply (Paper 29)

Ueda Is Eligible as Prior Art

- **NEC cannot establish Mr. Taniguchi's diligence in reducing to practice the purported invention**

Ueda is prior art: The Timeline



NEC's requirements to establish Mr. Taniguchi's diligence

In order to establish Mr. Taniguchi's diligence, NEC must show:

- **His diligence was reasonably continuous**
- **Corroboration**
- **The activities purportedly supporting his diligence actually relate to reducing the claimed invention to practice**

Ueda is prior art: NEC does not establish Mr. Taniguchi's diligence

12. Following the August 6, 2008 presentation, we determined that the concepts in the Invention Presentation were likely patentable, and the decision was made to pursue patent protection. I therefore began, in mid-August 2008, to draft a technical specification document setting out additional background and implementation details, including those already well known in the industry. This technical specification document became the basis of the specification of the JP'270 Application.

Taniguchi Decl. (Ex. 2011) ¶ 12

13. Between late August and the beginning of November 2008, I continued to draft and revise the specification document. I did so while fulfilling my other full-time responsibilities at NEC, spending nearly 100% of my time from August 2008 until November 2008 on additional or related research projects for IPTV—including research projects and analyses related to IPTV standardization, IPTV best practices, as well as IPTV service and distribution technologies.

Taniguchi Decl. (Ex. 2011) ¶ 13

Ueda is prior art: NEC does not establish Mr. Taniguchi's diligence

12. Following the August 6, 2008 presentation, we determined that the concepts in the Invention Presentation were likely patentable, and the decision was made to pursue patent protection. I therefore began, in mid-August 2008, to draft a technical specification document setting out additional background and implementation details, including those already well known in the industry. This technical specification document became the basis of the specification of the JP'270 Application.

Taniguchi Decl. (Ex. 2011) ¶ 12

***Loral Fairchild Corp. v. Victor Co. of Japan, Ltd.*, 931 F. Supp. 1014, 1030 (E.D.N.Y. 1996)**

“An inventor must provide specific details on activity during the critical period. General testimony that the inventor worked continuously and diligently will not suffice.”

Ueda is prior art: NEC does not establish Mr. Taniguchi's diligence

***Shu-Hui Chen v. Bouchard*, 347 F.3d 1299 (Fed. Cir. 2003)**

Federal Circuit found no diligence where plaintiff provided **no evidence** of who worked on what applications on which days in the 3-month critical period.

***Tesla, Inc. v. Charge Fusion Techs.*, Paper 35 at 10 (P.T.A.B. Apr. 16, 2024)**

Board found no diligence where PO provided **no evidence corroborating** inventor testimony of work on draft patent application during one-month critical period

Ueda is prior art: NEC does not establish Mr. Taniguchi's diligence

13. Between late August and the beginning of November 2008, I continued to draft and revise the specification document. I did so while fulfilling my other full-time responsibilities at NEC, spending nearly 100% of my time from August 2008 until November 2008 on additional or related research projects for IPTV—including research projects and analyses related to IPTV standardization, IPTV best practices, as well as IPTV service and distribution technologies.

Taniguchi Decl. (Ex. 2011) ¶ 13

***Naber v. Cricchi*, 567 F.2d 382, 385-86 (C.C.P.A. 1977)**

Finding no diligence because “the work relied on must ordinarily be directly related to reduction to practice of the Invention.”

Ueda is prior art: NEC's caselaw is inapposite

- Mr. Taniguchi's other work involving IPTV is not "circumstantial evidence" corroborating his diligence in reducing the claimed invention to practice. *In re Jolley*, 308 F.3d 1317, 1328 (Fed. Cir. 2002).
- General testimony of diligence and activities not related to the purported invention do not establish diligence under a "rule of reason." In *Perfect Surgical Techniques*, the record evidence included:
 - Documentary evidence of revisions and comments
 - Third party declaration
 - Letters
 - Billing records

GROUND 1: Ueda, SIP Standard, and SDP Standard

- Limitation 1[g] / 10[j] (...guaranteeing a communication bandwidth...)
- Limitation 1[g] / 10[j] (at a same time... transmit the play-list information...)
- Motivation to combine

Independent claim 1

A content delivery system comprising an application server system and one or more connection control servers . . .

The application server system comprising: . . .

a first transmitter for transmitting selected sub content specification information for specifying the selected sub content data via the one or more connection control servers to the user equipment which has transmitted the content delivery request,

1[g] *wherein the first transmitter is configured to, **at a same time** that the one or more connection control servers executes **a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection, transmit the play-list information** via the one or more connection control servers to the user equipment which has transmitted the content delivery request, . . .*

Ueda, SIP Standard, and SDP Standard disclose the bandwidth limitation

- **Both parties agree it was known that a proxy server may guarantee bandwidth on the basis of a SIP message**
- **NEC misinterprets “using” a SIP message**
- **NEC creates a requirement that “transport protocols” perform the bandwidth limitation**
- **NEC creates the requirement that the bandwidth limitation take place at a time beyond establishing the connection**
- **NEC argues that a system must guarantee every possible bandwidth in order to practice the claims**

Ueda, SIP Standard, and SDP Standard disclose the “bandwidth limitation”

. . . the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for establishing the connection . . .

'427 Patent (Ex. 1001) at Claim 1

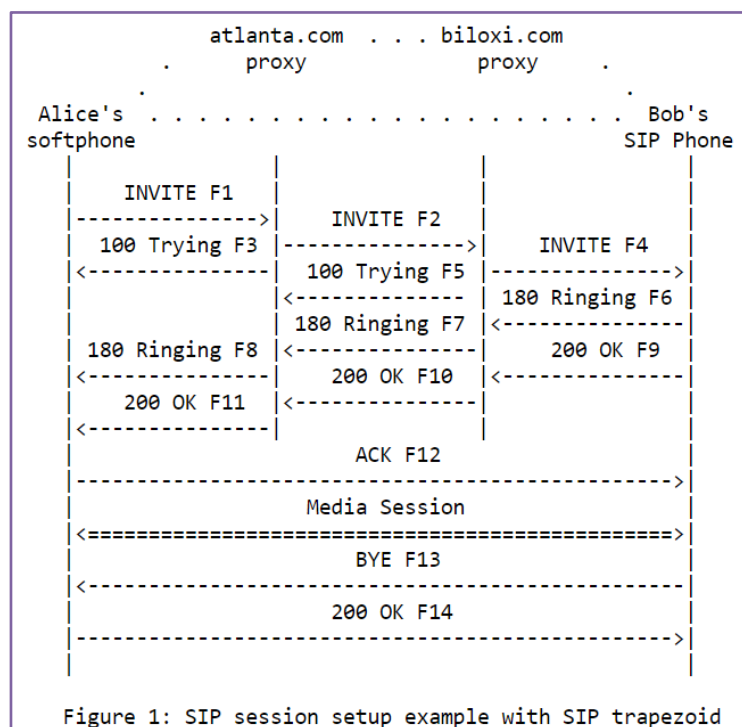


Figure 1: SIP session setup example with SIP trapezoid

SIP Standard (Ex. 1004) at Fig. 1

When a user agent client desires to initiate a session (for example, audio, video, or a game), it formulates an INVITE request. The INVITE request asks a server to establish a session. This request may be forwarded by proxies, eventually arriving at one or more UAS that can potentially accept the invitation. These UASs will frequently need to query the user about whether to accept the invitation. After some time, those UASs can accept the invitation (meaning the session is to be established) by sending a 2xx response. If the invitation is not accepted, a 3xx, 4xx, 5xx or 6xx response is sent, depending on the reason for the rejection. Before sending a final response, the UAS can also send provisional responses (1xx) to advise the UAC of progress in contacting the called user.

SIP Standard (Ex. 1004) at 77–78

Ueda, SIP Standard, and SDP Standard disclose the “bandwidth limitation”

21.6.4 606 Not Acceptable

The user's agent was contacted successfully but some aspects of the session description such as the requested media, bandwidth, or addressing style were not acceptable.

SIP Standard (Ex. 1004) at 192

370 Insufficient bandwidth: The bandwidth specified in the session description or defined by the media exceeds that known to be available.

SIP Standard (Ex. 1004) at 182

5.8. Bandwidth ("b=")

b=<bwtype>:<bandwidth>

This OPTIONAL field denotes the proposed bandwidth to be used by the session or media. The <bwtype> is an alphanumeric modifier giving

SDP Standard (Ex. 1005) at 16

Ueda, SIP Standard, and SDP Standard disclose the “bandwidth limitation”

189. Accordingly, the SIP Standard teaches that the proxy servers execute a process for guaranteeing a communication bandwidth for transmitting content data by checking that the bandwidth specified in the session description or defined by the media does not exceed the available bandwidth. The SIP Standard also teaches that this process for guaranteeing a communication bandwidth is part of a process for establishing the connection, such that a session initiation request is canceled if the proxy servers receive a 606 Not Acceptable Response with the Warning 370 reason code.

Reader Decl. (Ex. 1008) ¶ 189

Ex[2009] at 1. Specifically, POSAs understood that a “session control server” could reserve bandwidth “on the basis of SIP Session request” but, as this implies, it is not the SIP requests themselves which perform the reservation and/or guarantee, and Petitioner fails to provide any art or analysis to fill this gap in the Grounds.

POR (Paper 20) at 43

The “bandwidth limitation”: NEC misinterprets “using” SIP messages

NEC argues that a SIP message in and of itself must “execute” a process for guaranteeing a bandwidth

9:4; *see also id.* 15:35-40. Figures 5, 13, 15 and 18 of the '427 Patent show message flows of a process for establishing a connection using SIP messages (Ex1001, 15:35-40), and that a core IMS part 30 of the connection control system 3 (Ex1001, 7:48-50) executes the bandwidth guarantee process at B502. The specification does not elaborate further on what is meant by “a process to guarantee a communication bandwidth,” indicating that this process is a standard process performed by SIP servers using SIP messages. Ex1008 ¶64.

Petition (Paper 3) at 10

Peloton’s own interpretation of this term *requires* that the identified SIP messages be what “execute[] a process for guaranteeing a communication bandwidth” and Peloton identifies no other protocols or functions which can perform this function. *See* Ex[2010] ¶25.

POR (Paper 20) at 35

Demonstrative Exhibit – Not Evidence

The “bandwidth limitation”: NEC misinterprets “using” SIP messages

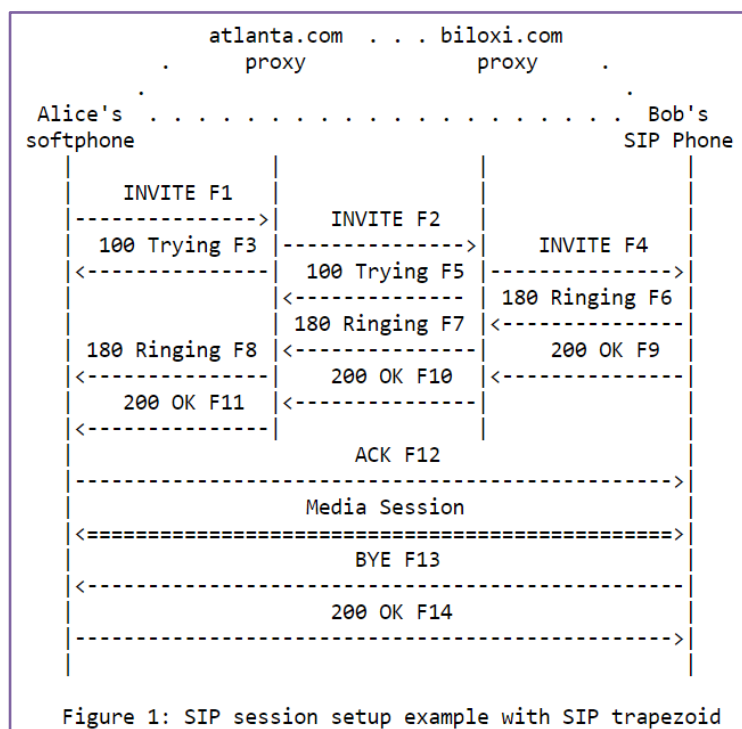
NEC argues that a SIP message in and of itself must “execute” a process for guaranteeing a bandwidth

We do not understand Peloton to be arguing that the SIP messages, themselves, constitute the recited “process for guaranteeing a communication bandwidth.” Rather, as Dr. Reader opines, the guaranteeing process involves “checking that the bandwidth specified in the session description or defined by the media does not exceed the available bandwidth” and then either continuing or aborting the process for establishing the connection. *See* Ex. 1008 ¶ 189; *see also* Pet. 48 (“If a 6xx

Institution Decision (Paper 16) at 41

The “bandwidth limitation”: NEC misinterprets “using” SIP messages

Both the Board and NEC’s own expert understand what “using” SIP messages means



SIP Standard (Ex. 1004) at Fig. 1

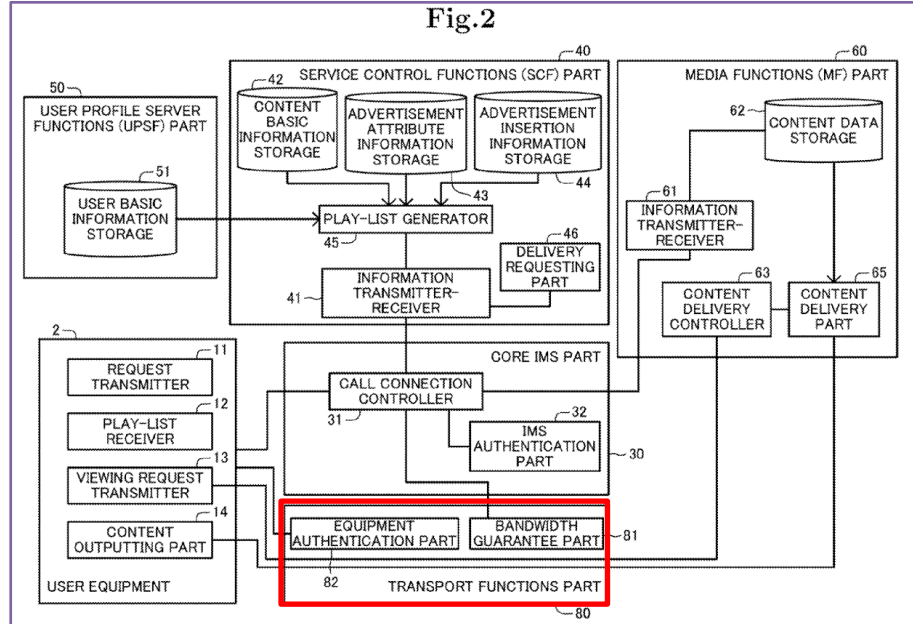
Q And the biloxi.com proxy server knows that it needs to look for Bob or Bob's phone -- or Bob's SIP phone, excuse me, because the invite message specifies that the intended recipient is Bob, at that particular SIP address, correct?

A So the biloxi.com proxy is using the destination address, that destination named recipient device, to carry out the lookup in its database.

Cooperstock Tr. (Ex. 1017) at 54:14–22

The “bandwidth limitation”: NEC inserts its own claim requirement

NEC creates its own claim requirement that the “bandwidth limitation” is performed by transport protocols



'427 Patent (Ex. 1001) at Fig. 2 (annotated)

Upon receiving the bandwidth guarantee instruction, the core IMS part 30 transmits, to the transport functions part 80, the received communication bandwidth information and communication channel specification information for specifying a communication channel between the user equipment 2 and the media server 4b specified by the received media delivery specification information. Thus, the transport functions part 80 executes a process to guarantee the communication bandwidth represented by the received communication bandwidth information on the communication channel specified by the received communication channel specification information (bandwidth guarantee process).

'427 Patent (Ex. 1001) at 15:29–40

The “bandwidth limitation”: NEC inserts its own claim requirement

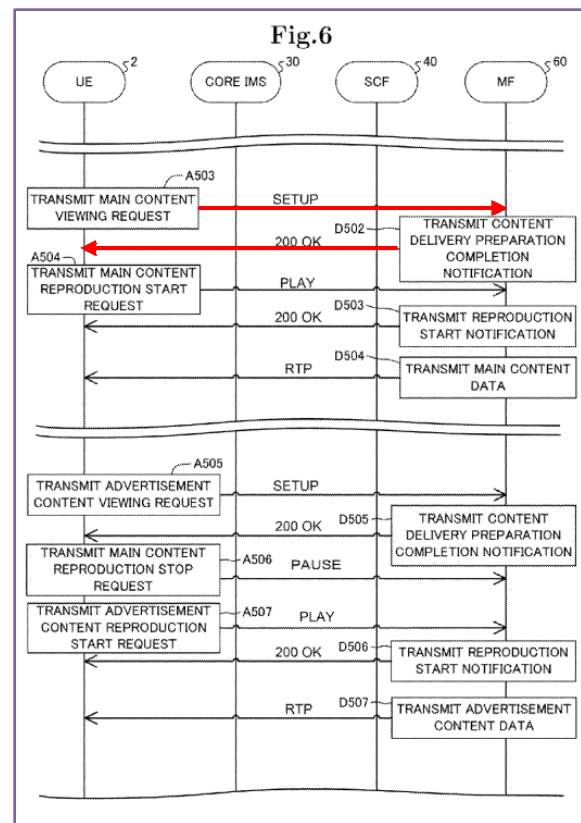
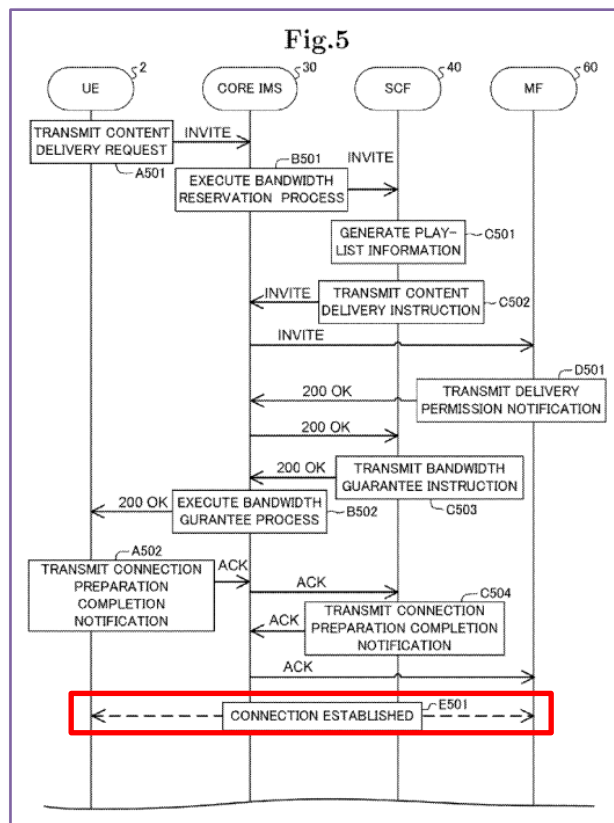
NEC argues that “guaranteeing a bandwidth” must occur beyond the time of establishing the connection

*. . . the one or more connection control servers executes a process for guaranteeing a communication bandwidth required for transmitting content data as a process for **establishing the connection** . . .*

'427 Patent (Ex. 1001) at Claim 1

The “bandwidth limitation”: NEC inserts its own claim requirement

NEC argues that “guaranteeing a bandwidth” must occur beyond the time of establishing the connection



The “bandwidth limitation”: NEC inserts its own claim requirement

NEC argues—against its own expert and the Board—that a system must *always* guarantee any requested bandwidth in order to practice the claimed invention

A This would be -- just to finish off. I think this would be a case where a POSITA, reading the patent, would, then, have the liberty of deciding what to do in that situation. But it would not preclude a -- one decision from breaking with the teachings of the patent, since the patent does not -- the '427 patent, that is, does not appear to state what should happen in the case of the bandwidth guarantee process not being able to succeed.

Cooperstock Tr. (Ex. 1017) at 144:12–21

if not, aborting the connection process. Also, on its face, claim 1 does not appear to require a connection to be established in all cases, so long as for any established connection, the bandwidth is guaranteed. See Ex. 1001, 37:16–18.

Institution Decision (Paper 16) at 41–42

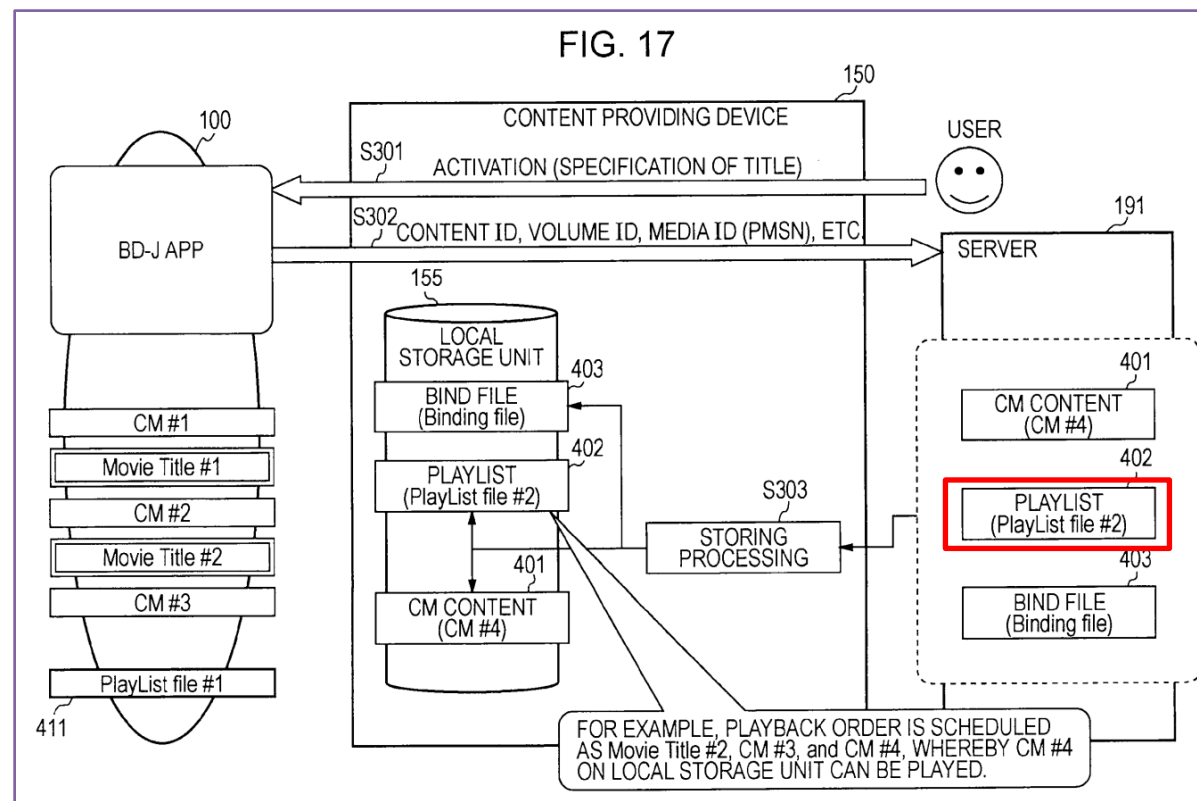
Ueda, SIP Standard, and SDP Standard disclose the playlist limitation

- **Ueda teaches sending the claimed playlist**
- **A POSA would have understood there were numerous well-known ways to send Ueda's playlist using SIP Standard and SDP Standard**
- **NEC misinterprets the legal standard to require that the playlist limitation be disclosed by a discrete reference in isolation**

Ueda, SIP Standard, and SDP Standard disclose the “playlist limitation”

“ . . . at a same time...transmit the play-list information...to the user equipment which has transmitted the content delivery request . . . ”

'427 Patent (Ex. 1001) at Claim 1



Ueda (Ex. 1003) at Fig. 6 (annotated)

Demonstrative Exhibit – Not Evidence

Ueda, SIP Standard, and SDP Standard disclose the “playlist limitation”

A POSA would have understood there were numerous well-known ways to send Ueda’s playlist using SIP/SDP

A media description may have any number of attributes (“a=” fields) that are media specific. These are referred to as “media-level” attributes and add information about the media stream. Attribute fields can also be added before the first media field; these “session-level” attributes convey additional information that applies to the conference as a whole rather than to individual media.

SDP Standard (Ex. 1005) at 21

A URI is a Uniform Resource Identifier as used by WWW clients [7]. The URI should be a pointer to additional information about the session. This field is OPTIONAL, but if it is present it MUST be specified before the first media field. No more than one URI field is allowed per session description.

SDP Standard (Ex. 1005) at 13

Another way of referring to a media stream is by using the order of the ‘m’ line in the SDP session document (e.g., the 5th media stream in the session description). This is the mechanism used in the offer/answer model [3].

SDP Label Attribute (Ex. 1011) at 3

The “playlist limitation”: NEC misinterprets the legal standard

***Bot M8 LLC v. Sony Interactive Ent. LLC*, 66 F.4th 1380, 1386 (Fed. Cir. 2023)**

Federal Circuit upheld Board’s invalidity decision because question was not whether individual reference in isolation disclosed claim limitation, but rather whether it “would have been obvious to a person of ordinary skill in the art to combine the references to yield the claimed invention.”

203. In my opinion, it would have been obvious to a POSITA transmitting Ueda’s playlist to user equipment to transmit the playlist according to the protocols provided in the SIP and SDP standards, given that Ueda’s playlist characterizes the media session and prevents resource misuse if a separate connection were established solely to transmit the playlist. As discussed above, a POSITA would

Reader Decl. (Ex. 1008) ¶ 203

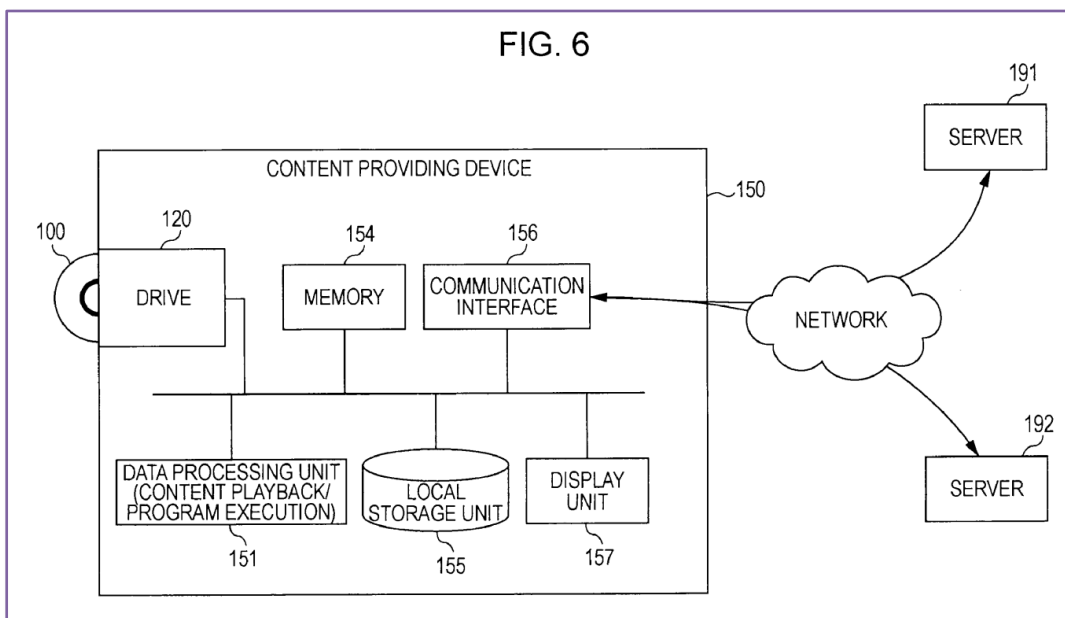
Motivation to combine Ueda, SIP Standard, and SDP Standard

- **Ueda supports a variety of network configurations**
- **SIP Standard teaches intermediary network elements that can be used with Ueda**
- **A POSA would have had a variety of motivations to combine Ueda, SIP Standard, and SDP Standard**
- **NEC simply repeats its same arguments against motivation to combine already rejected by the Board**

Motivation to combine: A POSA would recognize that Ueda supports a variety of network configurations

103. While Ueda teaches that a connection is established between the server 191 and the content providing device 150, Ueda does not explicitly describe the intermediate servers that would necessarily and inherently intermediate between and connect the content providing 150 and the server 191.

Reader Decl. (Ex. 1008) ¶ 103

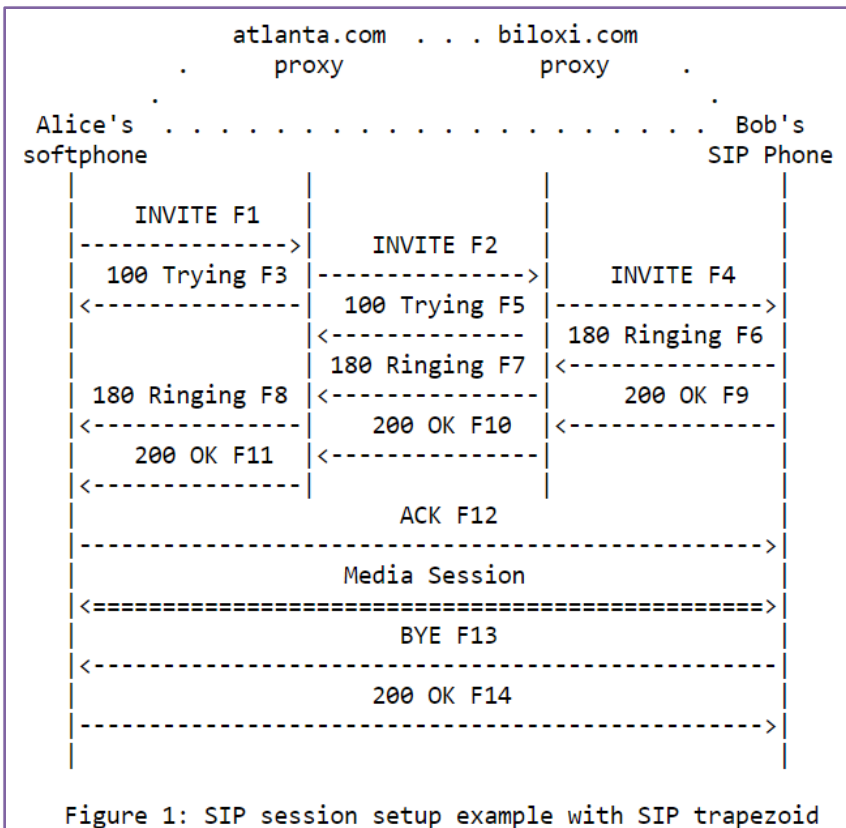


Ueda (Ex. 1003) at Fig. 6

And on the next page, now what we see is an overview of this system. So we've got -- actually, in Figure 6, we've got two servers illustrated. And so the patent focuses on describing the activities of the servers with respect to the first one, the Unit 191 shown in Figure 6. But there are, in fact, two illustrated here, and they are connected via a network which is illustrated as a cloud, which is a common way of illustrating diverse heterogeneous networks.

Reader Tr. (Ex. 2029) at 87:5-14

Motivation to combine: SIP Standard teaches intermediary network elements



SIP invitations used to create sessions carry session descriptions that allow participants to agree on a set of compatible media types. SIP makes use of elements called proxy servers to help route requests to the user's current location, authenticate and authorize users for services, implement provider call-routing policies, and provide features to users. SIP also provides a registration function that allows users to upload their current locations for use by proxy servers. SIP runs on top of several different transport protocols.

SIP Standard (Ex. 1004) at 1

SIP Standard (Ex. 1004) at Fig. 1

Motivation to combine:

A POSA would have been motivated to combine Ueda, SIP Standard, and SDP Standard

- **SIP and SDP are globally recognized and widely adopted standards**
- **SIP and SDP provide well-known means of providing intermediating resources between agents to yield predictable results of forming a connection**
- **Signaling a desire to communicate and locating a server**
- **SIP and SDP provide many means to characterize a communication session**
- **SIP provides a suite of security options**
- **SIP and SDP teach their mutual interoperability**

Motivation to combine: NEC reasserts the same arguments rejected by the Board

NEC simply repeats the same arguments already rejected by the Board:

- **Ueda need not locate a server.**
- **Ueda and SIP Standard are incompatible.**
- **SIP Standard's methods of media characterization would have been redundant if used with Ueda.**
- **SIP Standard's security options would have been redundant if used with Ueda.**

GROUND 2: Ueda, SIP Standard, and Bechtolsheim

- Limitation 1[g] / 10[j] (...guaranteeing a communication bandwidth...)
- Limitation 1[g] / 10[j] (at a same time... transmit the play-list information...)
- Motivation to combine

Ueda, SIP Standard, and Bechtolsheim disclose the “bandwidth limitation”

cessor 206, and a memory controller (MC) 208. In one embodiment, the processor 206 is configured to execute software such as a content streaming service (CSS), which may create new streams (referred to as CssStreams), create new segments of content (e.g., CssCacheSegments, add blocks of content to these segments, assign segments to be played by particular streams, and start and stop these streams. A stream specifies the delivery endpoint for the content and represents the reservation of bandwidth and streaming capacity of the switch unit 135. A cache segment is a contiguous, variable-

Bechtolsheim (Ex. 1006) ¶ [0049]

to saturate the egress ports. The switch unit 135 hardware and software scheduling facilities provide high bandwidth utilization while guaranteeing that egress ports will not be overloaded. In one embodiment, when a stream starts, it is allocated transmission slots. To provide scheduling simplicity, the bandwidth allocation for a stream may be composed of up to four sub-allocations that are all powers of two multiples of a base rate. For example, if the base rate were 1 Mbps, a 15

Bechtolsheim (Exhibit 1006) ¶ [0055]

Ueda, SIP Standard, and Bechtolsheim disclose the “bandwidth limitation”

see supra Section V.C.2, Bechtolsheim does not teach a bandwidth “guarantee” process. Bechtolsheim teaches a mechanism whereby, rather than guaranteeing a required bandwidth, it is “configured to issue warnings *and* drop data” “[i]f the target bandwidth is too small.” Ex[1006] ¶0038.

POR (Paper 20) at 60

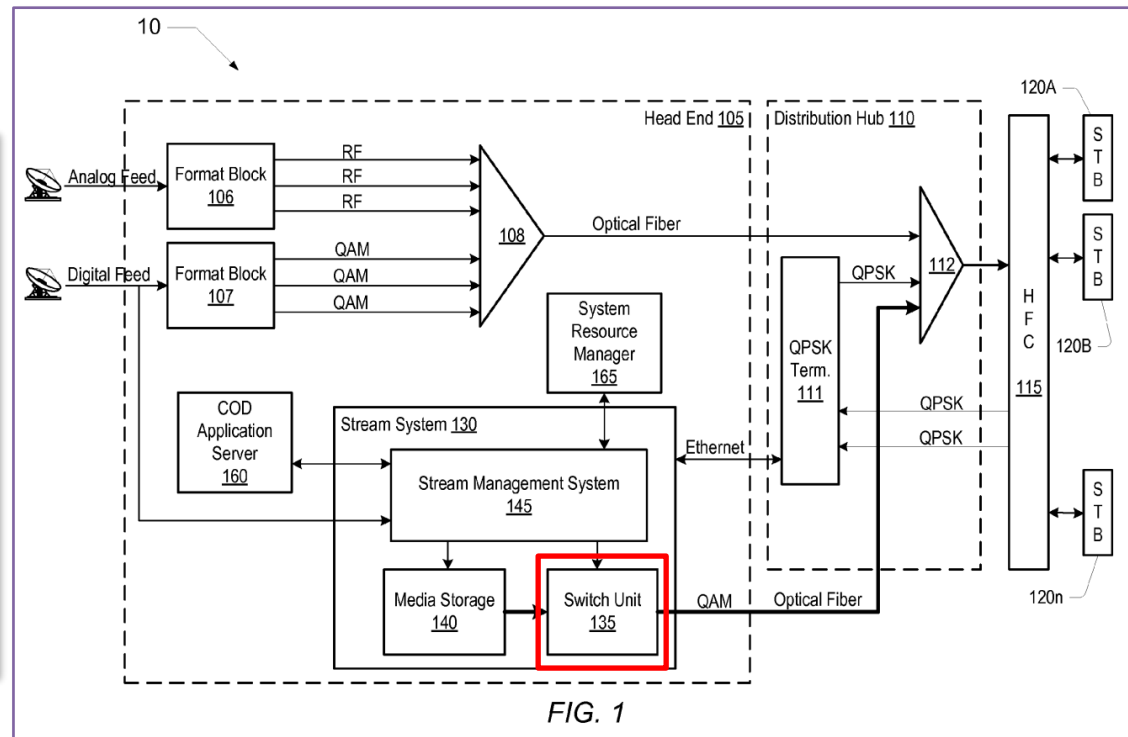
A This would be -- just to finish off. I think this would be a case where a POSITA, reading the patent, would, then, have the liberty of deciding what to do in that situation. But it would not preclude a -- one decision from breaking with the teachings of the patent, since the patent does not -- the '427 patent, that is, does not appear to state what should happen in the case of the bandwidth guarantee process not being able to succeed.

Cooperstock Tr. (Ex. 1017) at 144:12–21

Ueda, SIP Standard, and Bechtolsheim disclose the “playlist limitation”

[0033] More particularly, video is managed in collections referred to a “titles” that correspond to a particular movie or TV show. Each title is broken up into a number of logically grouped pieces of content such as, for example, one commercial or one chapter of a particular movie title. The segments may be referred to as “content segments.” The content segments may be put together into a “playlist” by switch unit 135. For example, a movie is broken into content segments to allow commercial breaks between each segment. Additionally, each content segment has a list of “random access points.” These points are locations within a given content segment where playback can begin.

Bechtolsheim (Exhibit 1006) ¶ [0033]



Bechtolsheim (Exhibit 1006) at Fig. 1 (annotated)

Ueda, SIP Standard, and Bechtolsheim disclose the “playlist limitation”

Petitioner admits that Bechtolsheim does not teach executing a process for guaranteeing a communication bandwidth *at a same time* that play-list information is transmitted to the user device. Petitioner does not even allege that Bechtolsheim

POR (Paper 20) at 59

Ex 1001 at 19:13-22. The transmission of play-list information and the connection establishment, proceed “at a same time” as one another.⁸ This explanation is also

POPR (Paper 11) at 16

A POSA would have been motivated to combine Ueda and Bechtolsheim

configured to *issue warnings and drop data* in order to meet the schedule.” *Id.* As such, contrary to Petitioner’s statement that Bechtolsheim teaches “guaranteeing this bandwidth,” Petition at 24, Bechtolsheim actually teaches the opposite: modifying the *content* to be streamed to match the bandwidth that happens to be available—no bandwidth guarantee is provided. Ex[2001] ¶119.

POR (Paper 20) at 56

guaranteeing this bandwidth at the same time that the playlist is prepared. In my opinion, a POSITA would have been motivated to combine Bechtolsheim with Ueda to maintain the quality of the video and avoid a situation in which the data stream requires a higher bandwidth than available. Bechtolsheim itself teaches such a motivation. *See, e.g.*, Ex1006 ¶0038 (“[A] stream which consistently requires higher bandwidth than the configured rate may produce[] poorer quality video.”).

Reader Decl. (Ex. 1008) ¶ 111

A POSA would have been motivated to combine SIP Standard and Bechtolsheim

112. Additionally, it is my opinion that a POSTIA would have been motivated to combine Bechtolsheim with the SIP Standard to provide a protocol for describing multimedia sessions and to provide timing information, such as bandwidth requirements, in metadata to participants for initiating multimedia sessions. The SIP Standard and Bechtolsheim themselves teach such a motivation. See, e.g., Ex1004, p. 9, § 2; p. 10, § 2; Ex1006 ¶¶ 0034, 0038, 0049.

Reader Decl. (Ex. 1008) ¶ 112

segment. Thus, the output of the import preprocessor 148 for each title is a metadata file and one or more files of block data. The title metadata may include the title name, the title encoding (e.g., UDP/IP or RTP/UDP/IP), and the list of video segments in the title, and each segment's associated metadata. The metadata for each segment may include timing information for the segment as a whole (e.g., bandwidth requirements and duration), the default block size for the segment, the timing information for each jumbogram within the segment, and the filename of file containing the video data (in blocks).

Bechtolsheim (Ex. 1006) ¶ [0034]

GROUND 3: Ueda, SIP Standard, SDP Standard, and Cohee

- Motivation to combine

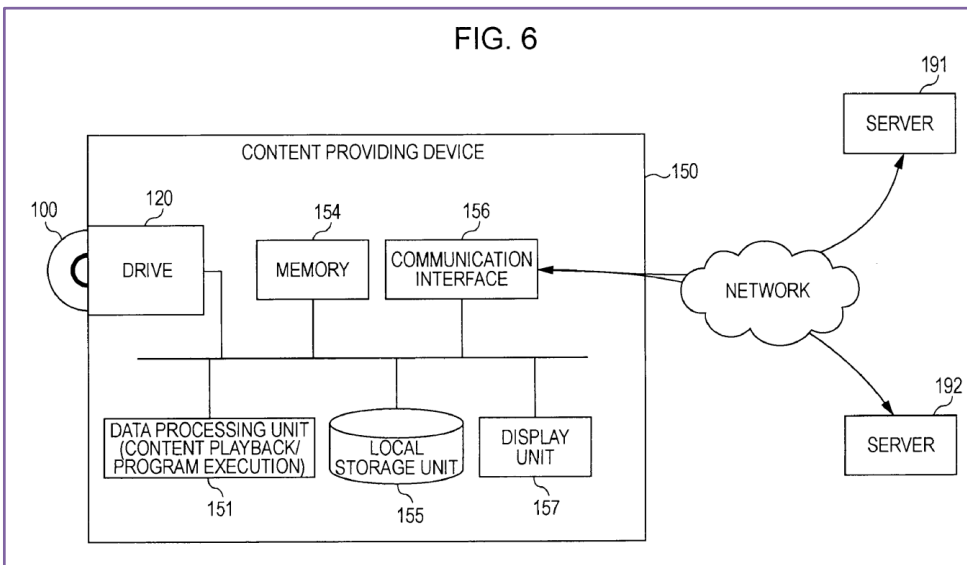
A POSA would have been motivated to combine Ueda and Cohee

113. As discussed above, Cohee teaches transmitting a request for a media clip referenced in a playlist. In my opinion, a POSITA would have been motivated to combine the teachings of Cohee with the teachings in Ueda to make it possible for media clips to reside at any location, including at a remote server on the Internet. Cohee itself teaches such a motivation. *See, e.g.*, Ex1007 ¶0053 (“Because the playlist contains a reference to each media clip and does not include the media data itself, it is possible for a media clip to reside at any location on the Internet accessible by a URL.”). Additional motivations would have been to reduce dedication of end-user equipment local storage resources for storing main content and sub content, and to reduce privacy risks for content providers that could occur by permitting local storage of content.

Reader Decl. (Ex. 1008) ¶ 113

A POSA would have been motivated to combine Ueda and Cohee

FIG. 6



Ueda (Ex. 1003) at Fig. 1

Ueda teaches us, you know, what's going to happen if you take Ueda's poor invention and then want to use it in an application environment in which the content is spread among diverse servers located in different places on the network.

Reader Tr. (Ex. 2029) at 115:3-7

that. As you scale up to large numbers of streams or large numbers of receivers, it generally becomes more cost effective to consider replication of data over multiple machines, multiple transmitters, multiple different locations where the servers can be housed, to position them closer to some of the receiver communities.

Cooperstock Tr. (Ex. 1017) at 35:15-36:6

GROUND 4: Ueda, SIP Standard, Bechtolsheim, and Cohee

- No additional arguments

A POSA would have been motivated to combine Ueda, SIP Standard, Bechtolsheim, and Cohee

1. No Motivation to Combine Ueda and the SIP Standard and Bechtolsheim with Cohee

Petitioner provides no motivation to combine Cohee with Bechtolsheim. *See* Petition at 47. Petitioner has failed to put forth sufficient evidence showing a motivation to combine Cohee with Ueda as proposed. *See supra* Section V.D.1. Petitioner makes no explanation of why, or how, a POSA would be motivated to combine Cohee with either the SIP Standard or Bechtolsheim and does not provide any statement regarding a POSA's likelihood of success in combining these references.

POR (Paper 20) at 68

No additional arguments specific to Ground 4

BACK-UP SLIDES

Ueda is prior art:

The August presentation does not disclose the
“equipment specification information” limitation

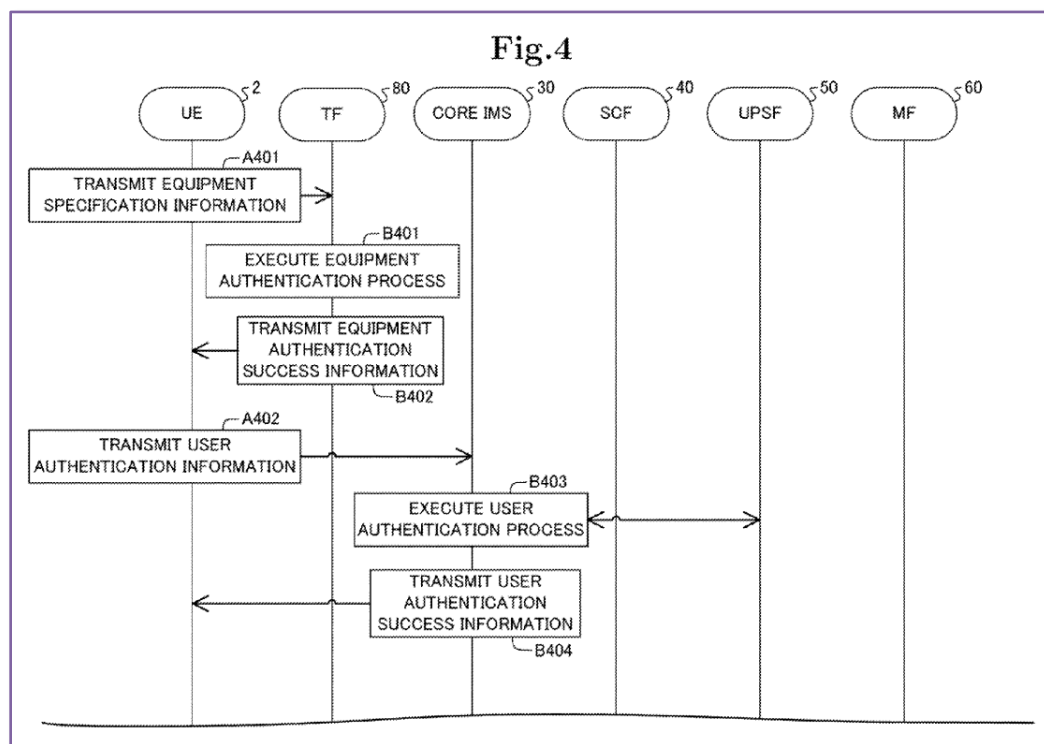
. . . the one or more connection control servers being configured to receive equipment specification information transmitted by a user equipment and establish a connection between the application server system and the user equipment based on the received equipment specification information, . . .

'427 Patent (Ex. 1001) at Claim 1

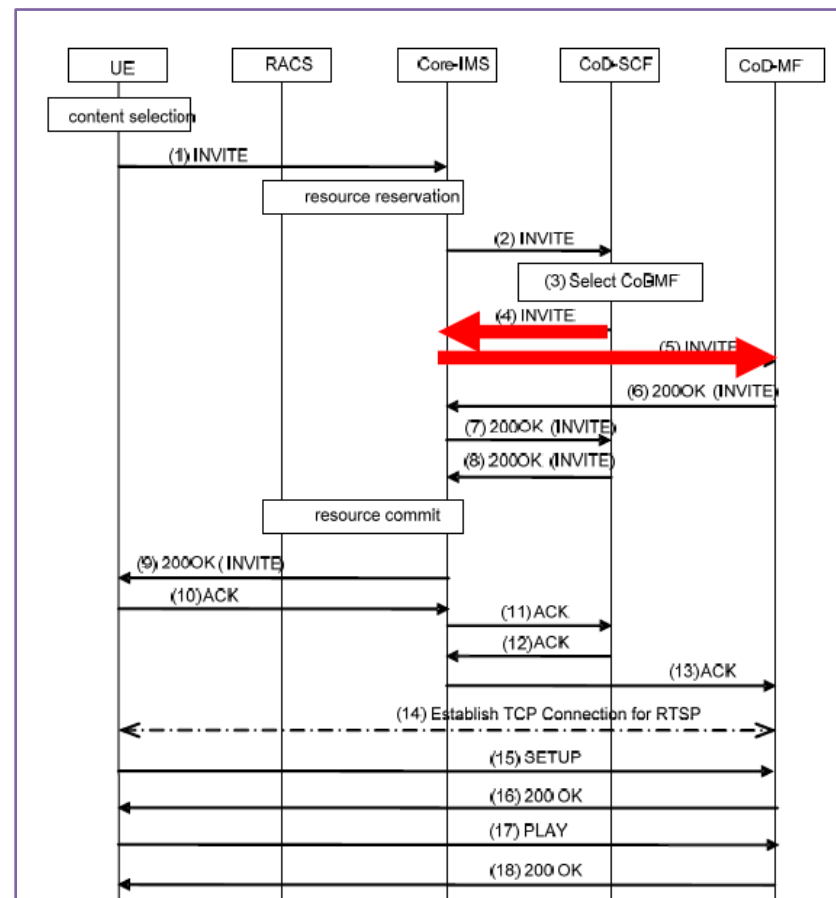
Firstly, power is supplied to the user equipment **2** by the user setting the state of the power switch of the equipment **2** to ON state. This causes the user equipment **2** to transmit an equipment authentication request containing the stored equipment specification information to the connection control server **3a** (transport functions part **80**) (step **A401**).

'427 Patent (Ex. 1001) at 12:36–41

Ueda is prior art: The August presentation does not disclose the “equipment specification information” limitation



'427 Patent (Ex. 1001) at Fig. 4



August Presentation (Ex. 2013) at 11

Ueda is prior art: The August presentation does not disclose the dependent claims

Claim	Source
2	Ex 2013 at 18, 19, 22, 25. Knowledge of a POSA. See Ex[2010] ¶21.
3	Ex 2013 at 10, 13, 16, 19, 22, and 25 Knowledge of a POSA. See Ex[2010] ¶21.
4	Ex 2013 at 30. Knowledge of a POSA. See Ex[2010] ¶21.
5	Ex 2013 at 30. Knowledge of a POSA. See Ex[2010] ¶21.
6	Ex 2013 at 8, 14, 16, 17, 21. Knowledge of a POSA. See Ex[2010] ¶21.
7	Ex 2013 at 3, 9, 18, 27. Knowledge of a POSA. See Ex[2010] ¶21.
8	Ex 2013 at 9 and 18. Knowledge of a POSITA. See Ex[2010] ¶21.
9	Ex 2013 at 2. Knowledge of a POSA. See Ex[2010] ¶21.
15	Ex 2013 at 18, 19, 22, 25. Knowledge of a POSA. See Ex[2010] ¶21.
16	Ex 2013 at Ex 2013 at 10, 11, 13, 14, 15, 18, 19, 22, 25, 28. Knowledge of a POSA. See Ex[2010] ¶21.
17	Ex 2013 at 10, 13, 16, 19, 22, and 25. Knowledge of a POSITA. See Ex[2010] ¶21.

Claim	Source
11	Ex 2013 at 18, 19, 22, 25. Knowledge of a POSA. See Ex[2010] ¶21.
12	Ex 2013 at Ex 2013 at 10, 11, 13 14, 15, 18, 19, 22, 25, 28. Knowledge of a POSA. See Ex[2010] ¶21.
13	Ex 2013 at 10, 13, 16, 19, 22, and 25. Knowledge of a POSA. See Ex[2010] ¶21.

[40] POR (Paper 20) at 12–13

[41] POR (Paper 21) at 13

Demonstrative Exhibit – Not Evidence

Motivation to combine Ueda and SIP Standard: Locating a server

Identification of this server is provided specifically through the “First Content Management Application (BD-J app1)” located on the disc 100, of Ueda, and includes software for “providing a URL to be accessed.” Ex[1003] ¶¶0127-0132;

POR (Paper 20) at 24

Ueda teaches us, you know, what's going to happen if you take Ueda's poor invention and then want to use it in an application environment in which the content is spread among diverse servers located in different places on the network.

Reader Tr. (Ex. 2029) at 115:3–7

that. As you scale up to large numbers of streams or large numbers of receivers, it generally becomes more cost effective to consider replication of data over multiple machines, multiple transmitters, multiple different locations where the servers can be housed, to position them closer to some of the receiver communities.

Cooperstock Tr. (Ex. 1017) at 35:15–36:6

Motivation to combine Ueda and SIP Standard: Ueda and SIP Standard are not incompatible

In addition, Ueda's server determines what content management application to provide to the content providing device based on identification information transmitted to the server from the user and, for example, by "content usage condition information corresponding to a contentID or userID" held by the server, in contrast with the SIP Standard, where the requestor will *directly* specify the media stream of interest. Ex[1003] ¶¶0147-0148; Ex[2001] ¶69. Petitioner provides no explanation

POR (Paper 20) at 26

We find nothing in the SIP Standard, or in the preliminary record as a whole, suggesting that the use of proxy servers or SIP messages requires a user to specify a media stream of interest directly, or that it is unfeasible for the content-selection process to involve downloading and executing an application from the server.

Institution Decision (Paper 16) at 29–30

the server **191** has been applied. The content providing device **150** displays the allowed processing included in the content management application (BD-J app 2) **322** on the display unit of the content providing device, and in step **S103**, the user performs, for example, selection of a download content.

Ueda (Ex. 1003) ¶ [0149]

Motivation to combine Ueda and SIP Standard: Ueda and SIP Standard are not incompatible

selected media. *Id.* ¶172; Ex[2001] ¶69. Yet SIP does not support the downloading of content management applications from a server that are “executed at the time of recording download data.” Ex[2001] ¶69. Thus, an attempt to replace Ueda’s

POR (Paper 20) at 26

The details of the session, such as the type of media, codec, or sampling rate, are not described using SIP. Rather, the body of a SIP message contains a description of the session, encoded in some other protocol format. One such format is the Session Description Protocol (SDP) (RFC 2327 [1]). This SDP message (not shown in the

SIP Standard (Ex. 1004) at 13

Q Right. So this is indicating that included in an SDP message, you can indicate that the type of media to be transmitted could be audio, could be video, it could be text, it could be an application, it could be a message, not to the exclusion of other things in the future, right?

A That is correct.

Cooperstock Tr. (Ex. 1017) at 82:11–18

Motivation to combine Ueda and SIP Standard: Session characterization is not redundant

Furthermore, contrary to Petitioner's expert's statement that a POSA would be motivated to combine these references to transmit information "characterizing the communication session," Ex[1008] ¶104, Ueda's transmission already does this and thus a POSA would not be motivated to look to the SIP Standard to implement this functionality. Even assuming that Ueda does *not* include information to characterize

POR (Paper 20) at 27

executed by the user employing the content providing device 150. Next, in step S282, the content providing device 150 executes the application program (BD-J app) read from the disc 100 by the specification of the user to obtain the identifier of an ID corresponding to the disc, e.g., at least one identifier of a content ID, volume ID, and PMSN which is a serial number equivalent to a media ID, which are recorded in a processing control file.

Ueda (Ex. 1003) at ¶ [0227]

20.1	Accept
20.2	Accept-Encoding
20.3	Accept-Language
20.4	Alert-Info
20.5	Allow
20.6	Authentication-Info ..
20.7	Authorization
20.8	Call-ID
20.9	Call-Info
20.10	Contact
20.11	Content-Disposition ..
20.12	Content-Encoding
20.13	Content-Language
20.14	Content-Length
20.15	Content-Type
20.16	CSeq
20.17	Date
20.18	Error-Info
20.19	Expires
20.20	From
20.21	In-Reply-To
20.22	Max-Forwards
20.23	Min-Expires
20.24	MIME-Version
20.25	Organization
20.26	Priority
20.27	Proxy-Authenticate ..
20.28	Proxy-Authorization ..
20.29	Proxy-Require
20.30	Record-Route
20.31	Reply-To
20.32	Require
20.33	Retry-After
20.34	Route

SIP Standard (Ex. 1004) at 5

Motivation to combine Ueda and SIP Standard: Security services

However, Petitioner again fails to explain why a POSA would be motivated to incorporate this security architecture involving additional intermediary servers to provide “security” when Ueda either 1) already has a security mechanism in place or 2) operates without any need for further verification/authentication. Ex[2001] ¶73.

POR (Paper 20) at 28

servers between the server 191 and the content providing device 150. The SIP Standard teaches that proxy servers “authenticate and authorize users for services.” Ex1004, p. 1. This is part of SIP’s “suite of security services, which include denial-of-service prevention, authentication (both user to user and proxy to user), integrity protection, and encryption and privacy services.” Ex1004, p. 10. In SIP, “[r]ecipients of requests can authenticate the originator of a request in order to ascertain that they are who their From header field claims they are” Ex1004, p. 37. Security, therefore, would have provided further motivation for a POSITA to

Reader Decl. (Ex. 1008) ¶ 106

Motivation to combine Ueda, SIP Standard, and SDP Standard

As we explain above, the preliminary evidence supports Peloton's argument that a person of ordinary skill in the art would have known how to combine Ueda with the teachings of the SIP Standard. *See supra* Section IV.C.4. And Peloton has shown that the SIP and SDP Standards explicitly teach their mutual interoperability. *See* Pet. 17–18 (citing Ex. 1004, 1, 10;

Institution Decision (Paper 16) at 33

The details of the session, such as the type of media, codec, or sampling rate, are not described using SIP. Rather, the body of a SIP message contains a description of the session, encoded in some other protocol format. One such format is the Session Description Protocol (SDP) (RFC 2327 [1]). This SDP message (not shown in the

SIP Standard (Ex. 1004) at 13

3. Examples of SDP Usage

3.1. Session Initiation

The Session Initiation Protocol (SIP) [15] is an application-layer control protocol for creating, modifying, and terminating sessions such as Internet multimedia conferences, Internet telephone calls, and multimedia distribution. The SIP messages used to create sessions carry session descriptions that allow participants to agree on a set of compatible media types. These session descriptions are commonly formatted using SDP. When used with SIP, the offer/answer model [17] provides a limited framework for negotiation using SDP.

SDP Standard (Ex. 1005) at 4