

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CHARTER COMMUNICATIONS, INC.,
Petitioner,

v.

IARNACH TECHNOLOGIES LTD.,
Patent Owner.

IPR2024-01287
Patent 9,287,982 B2

Before KARA L. SZPONDOWSKI, JOHN R. KENNY, and
RUSSELL E. CASS, *Administrative Patent Judges*.

KENNY, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Charter Communications, Inc. (“Petitioner”) filed a Petition to institute an *inter partes* review of claims 1–11 of U.S. Patent No. 9,287,982 B2 (Ex. 1001, the “’982 patent,” “challenged patent”) pursuant to 35 U.S.C. § 311 *et seq.* Paper 1 (“Pet.”). Iarnach Technologies Ltd. (“Patent Owner”) filed a Preliminary Response. Paper 10 (“Prelim. Resp.”). Further, Patent Owner disclaimed claim 4. Ex. 2007; Prelim. Resp. 14 n.1. Thus, the claims to be considered in this proceeding are claims 1–3 and 5–11 (“challenged claims”). 37 C.F.R. § 42.107(e).

The Petition, to justify institution of review, must demonstrate a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim. 35 U.S.C. § 314(a) (2018). After considering the Petition, the Preliminary Response, and the evidence of record, we determine that the Petition has met this standard. Further, we decline to discretionarily deny *inter partes* review. Therefore, we institute an *inter partes* review of the challenged claims of the ’982 patent.

A. Related Matters

The parties identify the following district court litigation as involving the ’982 patent:

Iarnach Technologies Ltd. v. Charter Communications, Inc., et al., 2:24-cv-00230 (E.D. Tex.) (“Related Litigation”).

Pet. 2–3; Paper 4, 2; Prelim. Resp. 3.

B. Challenged Patent

The ’982 patent relates to “a passive optical network (PON), especially to a service auto-configuration method of an Ethernet passive optical network [(EPON)] system based on a data over cable service interface system (DOCSIS) back-office management system.” Ex. 1001, 1:7–12. The ’982

patent is concerned with a PON system based on a DOCSIS back-office management, and a DOCSIS Provisioning Of EPON (DPOE) network creating a network across the PON. *Id.* at 1:16–20.

A topology structure diagram of a DPOE network is illustrated in Figure 1 of the '982 patent, reproduced below. Ex. 1001, 1:1:18–21, 4:28–29. As shown in Figure 1, a DPOE network is composed of a back-office management system including a Trivial File Transfer Protocol (TFTP) server, a DPOE system including equipment of a virtual coaxial cable modem (vCM), an optical line terminal (OLT) and other equipment, a DPOE optical network unit (ONU), and a customer premise equipment (CPE) terminal connected on the ONU. *Id.* at 1:18–26.

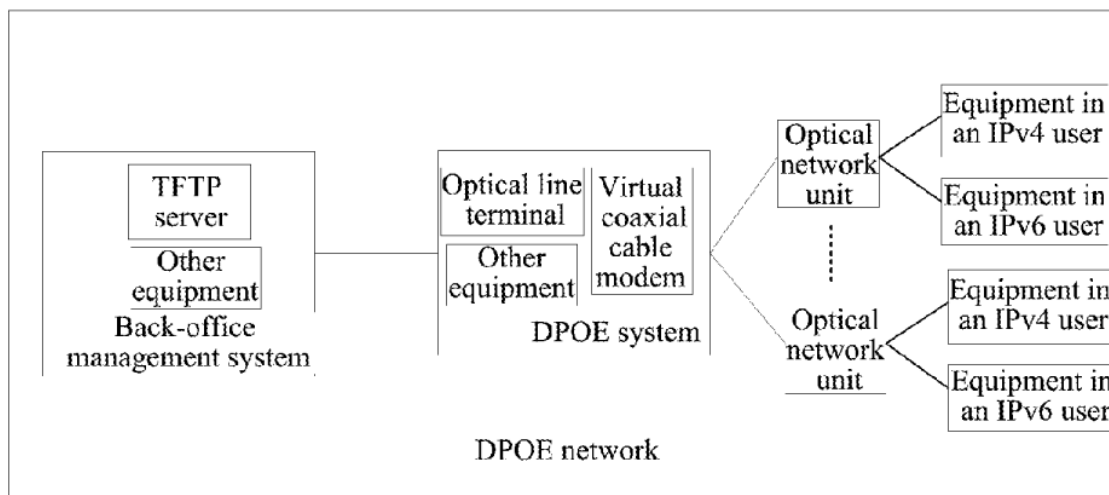


FIG. 1

Figure 1 illustrates a topology structure diagram of a DPOE. *Id.* at 1:18–21, 4:28–29.

To create a network across the PON, the ONU and OLT need to be configured, and the '982 patent explains that, conventionally, such processes included: the DPOE system performing an authentication on the ONU and completing a registration after authorization is passed; the vCM of the DPOE

system initiating an initialization process specified according to a DOCSIS 3.0 specification, sending a TFTP request to the back-office management system, and downloading the configuration file from the TFTP server of the back-office management system; the configuration file being configured on the related ONU through a corresponding configuration management channel, thereby completing the data configuration for the ONU. Ex. 1001, 1:26–56, 4:29–30. After completing the configuration of the ONU, in order to make the service on the ONU operate normally, a corresponding configuration on the OLT is needed. *Id.* at 1:56–64. The '982 patent explains that “the configuration on the OLT needs to be performed by hand individually, or performed through a command line, or performed through a simple network management protocol (SNMP) interface between an Element Management System (EMS) and the OLT.” *Id.* The '982 patent further explains that opening services corresponding to enterprise users generally need a large number of configurations to the OLT of the DPOE system in order to open the services, such that the relevant parameters of the OLT need to be configured at the same time for the ONU opening these services.” *Id.* at 1:65–2:2.

According to the '982 patent,

[t]he technical problem required to be solved by the present document is to provide a DOCSIS Provisioning Of EPON (DPOE) system and a service auto-configuration method and network based on that system, to make the service be opened without performing further configuration to the OLT individually after the process of the ONU initialization is completed, so as to improve the configuration efficiency of the whole system.

Ex. 1001, 2:50–58. In order to solve the above-mentioned technical problem, the '982 patent provides “a service auto-configuration method of an DOCSIS Provisioning Of EPON (DPOE) system,” the method including: the DPOE system acquiring a configuration file from a back-office management system, the configuration file comprising configuration information of an ONU and configuration information of an OLT in the DPOE system; the DPOE system analyzing the acquired configuration file, and obtaining the configuration information of the ONU and the configuration information of the OLT; and the DPOE system configuring the OLT locally and configuring the ONU via a management channel between the OLT and the ONU, where the configuration information of the OLT may be configuration information related to services opened by the ONU. *Id.* at 2:59–3:10. Figure 3 of the '982 patent, reproduced below, illustrates a flow chart of a service auto-configuration method of a DPOE system. *Id.* at 4:31–33. 4:49–51.

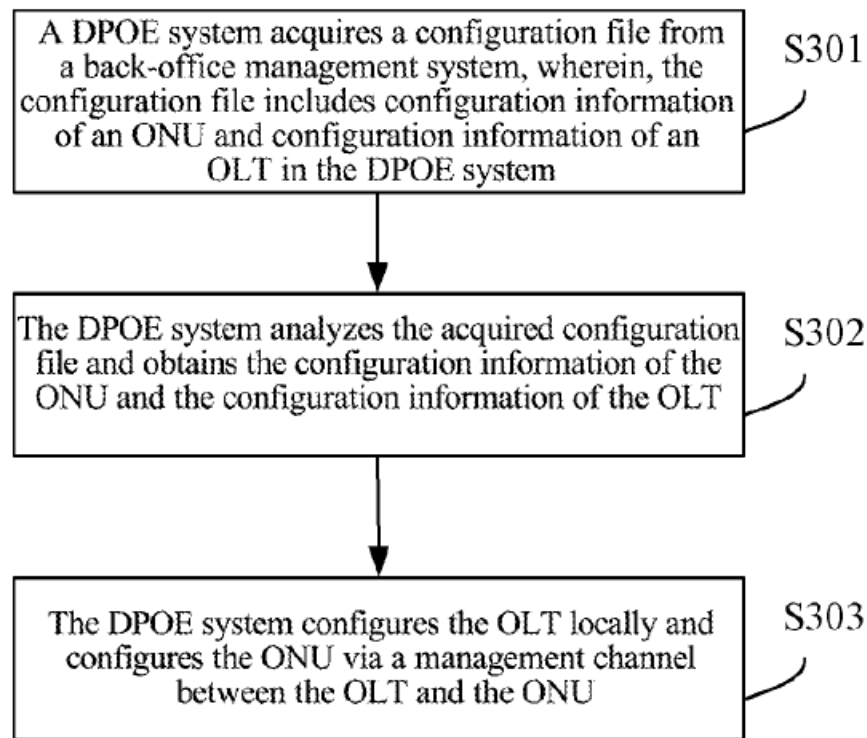


FIG. 3

Figure 3 illustrates a flow chart of a service auto-configuration method of a DPOE system. *Id.* at 4:31–33, 4:49–51.

The service auto-configuration method of the DPOE system illustrated in Figure 3 above includes the following steps. A step S301, in which the DPOE system acquires a configuration file from a back-office management system, the configuration file including configuration information of an ONU and configuration information of an OLT in the DPOE system. Ex. 1001, 4:52–67. In the process of ONU initialization, a virtual coaxial cable modem (vCM) in the DPOE system initiates a TFTP request to the back-office management system, and the DPOE system acquires the configuration file from that back-office management system, the configuration file including the added configuration information about the OLT, the configuration information of the OLT being the configuration information related to

services opened by the ONU. *Id.* In this way, the configuration file acquired by the DPOE system includes the configuration information for configuring the ONU and the OLT. *Id.* At step S302, the DPOE system analyzes the acquired configuration file and obtains the configuration information of the ONU and the configuration information of the OLT. *Id.* at 5:1–8. When analyzing the acquired configuration file, the DPOE system further converts the configuration information of the ONU into a message format which can be identified by the ONU, and converts the configuration information of the OLT into a message format which can be identified by the OLT. *Id.*

At step S303, the DPOE system configures the OLT locally and configures the ONU via a management channel between the OLT and the ONU. Ex. 1001, 5:9–20. After acquiring the configuration file, the DPOE system analyzes the configuration file and distinguishes the configuration information for configuring the ONU and the OLT, configures the OLT locally, transfers the information for configuring the ONU through the management channel between the DPOE system and the ONU, and configures the relevant parameters of the ONU. *Id.*

Figure 4 of the '982 patent, reproduced below, illustrates a flow chart of auto-configuration of an OLT and an ONU. Ex. 1001, 4:34–36.

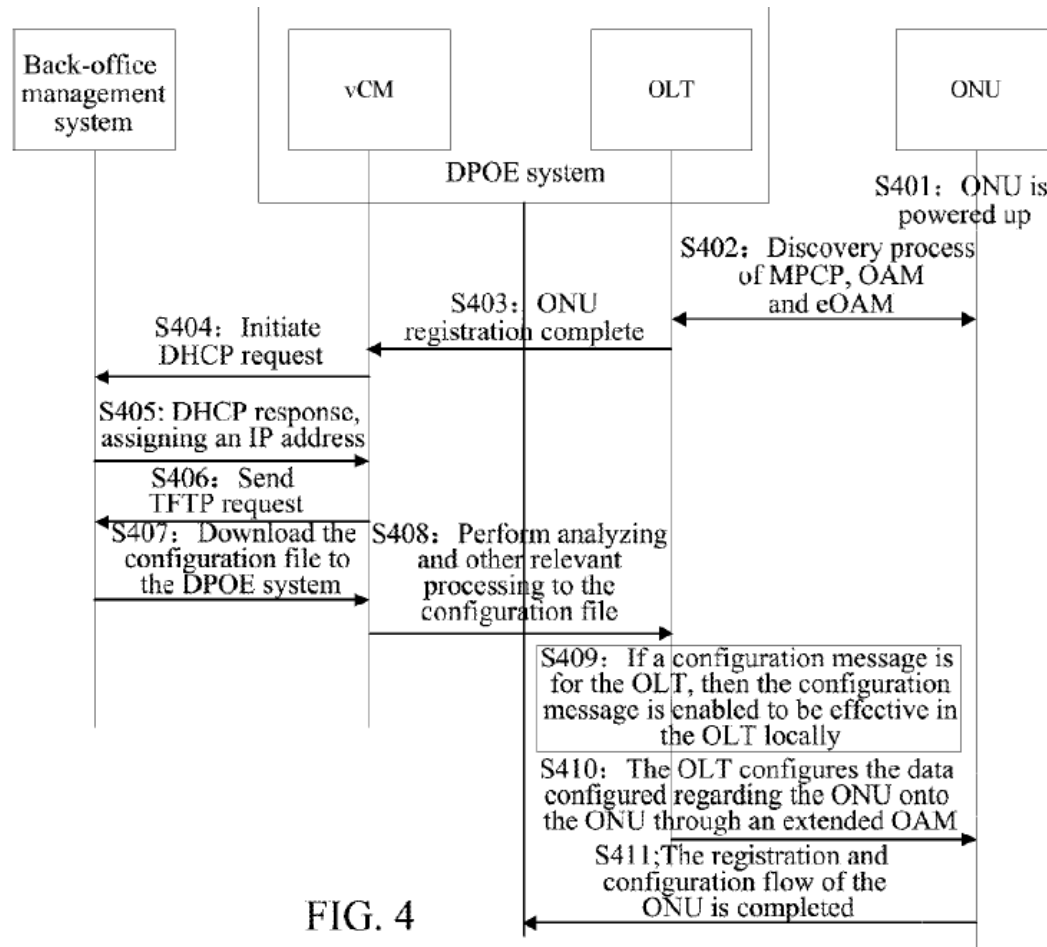


FIG. 4

Figure 4 illustrates a flow chart of auto-configuration of an OLT and an ONU. *Id.* at 4:34–36, 6:15–19.

As shown in Figure 4, in the process of the ONU powering up and registering, the process of configuration of the ONU and the OLT of the DPOE system is completed at the same time, through the following steps. Ex. 1001, 6:15–19. At step S401, the ONU is powered up, and the initialization process is started. *Id.* at 6:20–21. At step S402, the ONU and the DPOE system complete the initialization process of a PON layer, and at step S403, the DPOE system performs authentication on the ONU, and the authentication is passed. *Id.* at 6:22–25. Next, at step S404, the vCM initiates a Dynamic Host Configuration Protocol (DHCP) request to a DHCP server of the back-office management system. *Id.* at 6:26–28. At step S405,

the DHCP server of the back-office management system responds to the DHCP request, and assigns an IP address for the vCM. *Id.* at 6:29–31. At step S406, the vCM initiates a TFTP request to a TFTP server of the back-office management system, to request to acquire the configuration data file of the ONU corresponding to that vCM, and at step S407, the TFTP server of the back-office management system responds to the TFTP request initiated by the vCM, and downloads the configuration file of the ONU corresponding to that vCM into the DPOE system. *Id.* at 6:32–39.

At step S408, the above-mentioned configuration file (which includes a TLV required to be configured for the OLT of the DPOE system) is analyzed and processed, wherein, regarding auto-operation of the EVP-LAN service, and at step S409, the TLV based on the DOCSIS in the configuration file is converted into the message format which can be identified by the ONU and the OLT respectively. Ex. 1001, 6:40–48, 7:44–55. The DPOE system identifies which configuration message is for the OLT and which configuration message is for the ONU. *Id.* For example, the DPOE system can identify the configuration data of the OLT and the configuration data of the ONU automatically according to the content of the type field; and if it is configured for the OLT, then the configuration message is enabled to be effective in the OLT locally, but if the data is configured for the ONU, then step S410 is executed. *Id.* At step S410, the OLT configures the data configured for the ONU onto the ONU via the management channel between the OLT and the ONU, and at step S411, after completing the data configuration to the ONU, the ONU notifies the DPOE system, and the registration process of the ONU ends. *Id.* at 7:56–64.

C. Challenged Claims

Petitioner challenges claims 1–3 and 5–11. Pet. 1; Ex. 2007.

Claims 1, 4, and 6 are independent and read:

- 1.¹ [1[preamble]] A service auto-configuration method of a DOCSIS Provisioning Of EPON (DPOE) system, comprising:
- [1[a]] the DPOE system acquiring a configuration file from a back-office management system, wherein the configuration file comprises both configuration information of an optical network unit (ONU) and configuration information of an optical line terminal (OLT) in the DPOE system;
 - [1[b]] the DPOE system analyzing the acquired configuration file, and obtaining both the configuration information of the ONU and the configuration information of the OLT; and
 - [1[c]] the DPOE system configuring the OLT locally according to the configuration information of the OLT [1[d]] and meanwhile configuring the ONU according to the configuration information of the ONU via a management channel between the OLT and the ONU;
 - [1[e]] wherein, the method is performed in a process of ONU initialization; and
 - [1[f]] wherein, when analyzing the acquired configuration file, the DPOE system further converts the configuration information of the ONU into a message format which can be identified by the ONU, and [1[g]] converts the configuration information of the OLT into a message format which can be identified by the OLT.

¹ For ease of reference, we include the bracketed designations provided in the Petition for the limitations of claims 1, 4, and 6 (*see* Pet. ix–xii (Claim Listing)).

4. [4[preamble]] A data over cable service interface system (DOCSIS) Provisioning Of EPON (DPOE) system, comprising [4[a]] an acquisition unit, an analyzing unit and a configuration unit; wherein, during an process of an optical network unit (ONU) initialization,
 - [4[b]] the acquisition unit is configured to acquire a configuration file from a back-office management system, wherein the configuration file comprises configuration both information of the ONU and configuration information of an optical line terminal (OLT) in the DPOE system;
 - [4[c]] the analyzing unit is configured to analyze the acquired configuration file and obtain both the configuration information of the ONU and the configuration information of the OLT; and
 - [4[d]] the configuration unit is configured to configure the OLT locally according to the configuration information of the OLT and meanwhile configure the ONU according to the configuration information of the ONU via a management channel between the OLT and the ONU.

6. [6[preamble]] A service auto-configuration network of a DOCSIS Provisioning Of EPON (DPOE) system, comprising [6[a]] a DPOE system, a back-office management system and a plurality of optical network units (ONUs); [6[b]] wherein,
 - the DPOE system comprises an acquisition unit, an analyzing unit and a configuration unit; wherein, during an process of an optical network unit (ONU) initialization,
 - [6[c]] the acquisition unit is configured to acquire a configuration file from a back-office management system, wherein the configuration file comprises configuration both information of the ONU and configuration information of an optical line terminal (OLT) in the DPOE system;

[6[d]] the analyzing unit is configured to analyze the acquired configuration file and obtain both the configuration information of the ONU and the configuration information of the OLT; and

[6[e]] the configuration unit is configured to configure the OLT locally according to the configuration information of the OLT and meanwhile configure the ONU according to the configuration information of the ONU via a management channel between the OLT and the ONU; and

[6[f]] the back-office management system is configured to: save the configuration file, and download the configuration file to the DPOE system, wherein the configuration file comprises the configuration information of the ONU and the configuration information of the OLT in the DPOE system.

Ex. 1001, 8:33–57, 9:3–22, 9:30–10:14.

D. Asserted Challenges to Patentability and Prior Art

Petitioner challenges claims 1–3 and 5–11 based on the grounds in the table below:

Ground	Claim(s) Challenged	35 U.S.C. § ²	Reference(s)
1	1, 2, 5–9, 11	103	Bernstein ³ alone or in combination with Tsuge ^{4, 5}

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102 and 103, effective March 16, 2013.

³ U.S. Patent 8,831,425 B1, issued September 9, 2014 (Ex. 1006).

⁴ U.S. Patent 8,160,448 B2, issued April 17, 2012 (Ex. 1008).

⁵ A table on page 22 of the Petition indicates that MEF 6.1 is also part of Ground 1. That representation appears to be erroneous. The discussion of Ground 1 does not address MEF 6.1. Pet. 23–55. Further, the description of Ground 1 as including MEF 6.1 is not grammatically correct in that it is

Ground	Claim(s) Challenged	35 U.S.C. § ²	Reference(s)
2	3, 10	103	Bernstein in combination with MEF 6.1 ⁶ and/or Tsuge
3	1, 2, 5–9, 11	103	Tsuge alone or in combination with Bernstein
4	3, 10	103	Tsuge in combination with MEF 6.1 and/or Bernstein

Pet. 22; Ex. 2007.

Petitioner submits a declaration with proffered expert testimony from Paul Min, Ph.D., P.E. (Ex. 1005). Patent Owner submits a declaration from Eric J. Enger (Ex. 2006), which does not contain any proffered expert testimony.

II. LEVEL OF SKILL AND CLAIM CONSTRUCTION

A. Level of Skill in the Art

Factors pertinent to determining the level of ordinary skill in the art include (1) the educational level of the inventor; (2) the type of problems encountered in the art; (3) prior-art solutions to those problems; (4) the rapidity with which innovations are made; (5) the sophistication of the technology; and (6) the educational level of workers active in the field.

missing a conjunction between MEF 6.1 and U.S. Patent No. 8,160,448. *Id.* at 22. Further, assuming the intended conjunction was “and/or,” which is used in Grounds 2 and 4, with that conjunction, the bases for Grounds 1 and 2 would be the same. Thus, there would be no need for separate grounds, which further indicates that Ground 1 was not intended to include MEF 6.1.

⁶ “MEF Technical Specification MEF 6.1, Ethernet Services Definitions – Phase 2,” The Metro Ethernet Forum (MEF), April 2008 (Ex. 1007). Petitioner also calls this document “ESD.” *See* Pet. 22.

Envtl. Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 696–97 (Fed. Cir. 1983).

Not all factors may exist in every case, and one or more of these or other factors may predominate in a particular case. *Id.* These factors are not exhaustive, but merely a guide to determining the level of ordinary skill in the art. *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). Moreover, the prior art itself may reflect an appropriate skill level. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

Petitioner asserts that an ordinarily skilled artisan at the time of the alleged invention “would have at least a bachelor’s degree in electrical engineering, computer science or comparable degree or 2–3 years industry experience designing and/or maintaining back-end networking equipment.” Pet. 11.

Patent Owner “does not contest Petitioner’s recitation of the level of skill in the art, because even under Petitioner’s proposed level of skill (Pet.[] 11), Petitioner has failed to demonstrate a reasonable likelihood of success.” Prelim. Resp. 17.

For purposes of this Decision, we adopt Petitioner’s proposed definition of a person of ordinary skill in the pertinent art, as it is consistent with the ’982 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

B. Claim Construction

Petitioner submits that “[f]or purposes of this Petition only, Petitioner proposes no claim language requires express construction to resolve the grounds herein” but “reserves the right to propose additional/alternative claim constructions in this and other proceedings in response to arguments that may be advanced therein by PO.” Pet. 11.

Patent Owner notes that Petitioner contends that no terms require construction, and states that “[f]or the purposes of th[e] preliminary response only, Patent Owner agrees.” Prelim. Resp. 21. Patent Owner, nevertheless, implicitly raises a claim construction issue: whether the preambles of claims 1 and 6 are limiting. Prelim. Resp. 21–22. In particular, Patent Owner argues that the term “[a] service auto-configuration method” in the preamble of claim 1 and the term “[a] service auto-configuration network” in preamble of claim 6 are limiting. *Id.* at 21–22, 30. Petitioner has not addressed whether any portion of these preambles are limiting. Petitioner simply argues that *if* the preambles of claims 1 and 6 are limiting, the asserted prior art teaches or suggests those preambles. Pet. 24, 50.

Patent Owner’s main argument for construing the terms “[a] service auto-configuration method” and “[a] service auto-configuration method” as limiting is that another term in the preambles of claims 1 and 6 purportedly provides antecedent bases for recitations in the bodies of those claims. In particular, Patent Owner correctly asserts that the term “a DOCSIS Provisioning Of EPON (DPOE) system” in the preamble of claim 1 provides the antecedent basis for the recitations of “the DPOE system” in the body of claim 1. Prelim. Resp. 23. Patent Owner also argues that that the term “a DOCSIS Provisioning Of EPON (DPOE) system” in the preamble of claim 6 provides the antecedent basis for the recitation of “the DPOE system” the body of claim 6. *Id.* We disagree with the latter argument, however, because limitation 6a recites “a DPoE system,” rather than *the* DPOE system. Therefore, the recitation of “a DPoE system” in limitation 6a provides the antecedent basis for the recitations of “the DPOE system” in the body of claim 6.

Patent Owner also argues that the preambles of claims 1 and 6 are limiting because they serve to define the invention that is claimed and are not simply a description of the prior art. Prelim. Resp. 22. Patent Owner, however, provides no explanation or support for those assertions. *Id.*

“In general, a preamble limits the invention if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim.” *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quotations omitted) (quoting *Pitney Bowes v. Hewlett-Packard Company*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)). “Conversely, a preamble is not limiting where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.” *Id.* (citations omitted). “[T]he rule against giving invention-defining effect to intended-use preamble language reflects . . . the ‘well settled’ fundamental principle ‘that the recitation of a new intended use for an old product does not make a claim to that old product patentable.’” *Arctic Cat Inc. v. GEP Power Prods., Inc.*, 919 F.3d 1320, 1328 (Fed. Cir. 2019) (quoting *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997)).

On the current record, we determine that the recitation of “a DOCSIS Provisioning Of EPON (DPOE) system” in the preamble of claim 1 is limiting because it provides the antecedent basis for the term “the DPOE system” in body of claim 1 (e.g., limitation 1a). We, however, have not received specific arguments from the parties as to why the *entire* preamble of claim 1 would be limiting based on the antecedent basis provided by “a DOCSIS Provisioning Of EPON (DPOE) system.” Further, as discussed above, Patent Owner does not provide any explanation of or support for its

assertion that the preambles of claims 1 and 6 serve to define the invention that is claimed and are not simply a description of the prior art. Prelim.

Resp. 22. Because we do not need to resolve the issue of whether the *entire* preamble of claim 1 is limiting to decide whether to institute *inter partes* review, we will wait for further briefing from the parties before deciding whether the entire preamble of claim 1 is limiting.

For claim 6, we determine that the recitation of “a DOCSIS Provisioning Of EPON (DPOE) system” in the preamble is not limiting because it does not provide the antecedent basis for any term in the body of claim 6. As mentioned, limitation 6a recites “*a* DPoE system,” rather than *the* DPOE system. Further, as discussed above, Patent Owner does not provide any explanation of or support for its assertion that the preambles of claims 1 and 6 serve to define the invention that is claimed and are not simply a description of the prior art. We do not independently see such support in the record. Thus, for this Decision, we determine that the preamble of claim 6 is not limiting.

Patent Owner argues that the preamble of claim 4 is limiting. Prelim. Resp. 23 (“the preamble is limiting in all the independent claims.”). For this Decision, as set forth in Sections III.A.6.a and III.C.3 below, we do not need to determine whether the preamble of claim 4 is limiting in light of Petitioner’s showings.

At this stage of the proceeding, we do not need to, and do not, construe any other claim terms to resolve the controversy before us. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to

the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

III. ANALYSIS OF ASSERTED GROUNDS

A. Asserted Obviousness over Bernstein and Tsuge

Petitioner argues that claims 1, 2, 5–9, and 11 would have been obvious over Bernstein alone or in combination with Tsuge. Pet. 22; Ex. 2007.

1. Bernstein

Bernstein is titled “Data Over Cable Service Interface Specification (DOCSIS) Over Passive Optical Network (PON),” and discloses a DOCSIS PON system (DPON) that makes optical subscribers appear as cable subscribers. Ex. 1006, codes (54), (57). A Cable Modem (CM) proxy is located in an Optical Line Termination (OLT), which implements a cable modem protocol stack that operates as the CM proxy and communicates with a back office system. *Id.* at code (57). The OLT translates the data retrieved by the CM proxy into Optical Network Unit (ONU) recognizable commands, and sends the translated data to the ONU. *Id.* In another embodiment, the CM proxy may be located in the ONU, which implements the cable modem protocol stack that operates as the CM proxy and communicates with the back office system. *Id.* The ONU translates the data retrieved by the CM proxy into ONU recognizable commands and sends the translated data to the ONU. *Id.*

Figure 1 of Bernstein, reproduced below, illustrates a diagram of a DOCSIS PON (DPON) network architecture, and Figure 3 of Bernstein, reproduced below, illustrates details of a cable modem proxy used in the DPON system of Figure 1. Ex. 1006, 1:30–32, 1:35–36.

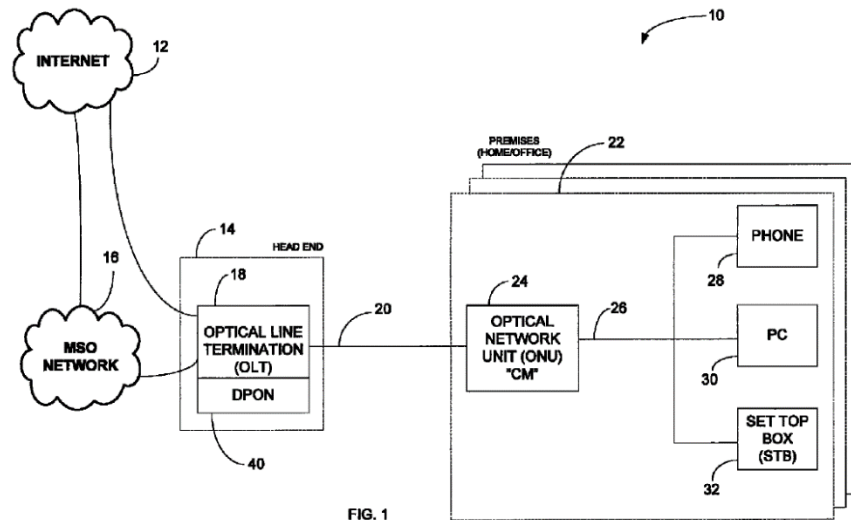


FIG. 1

Figure 1 shows a Passive Optical Network (PON) 10 including a DPON system 40. *Id.* at 1:65–67, 2:54–56.

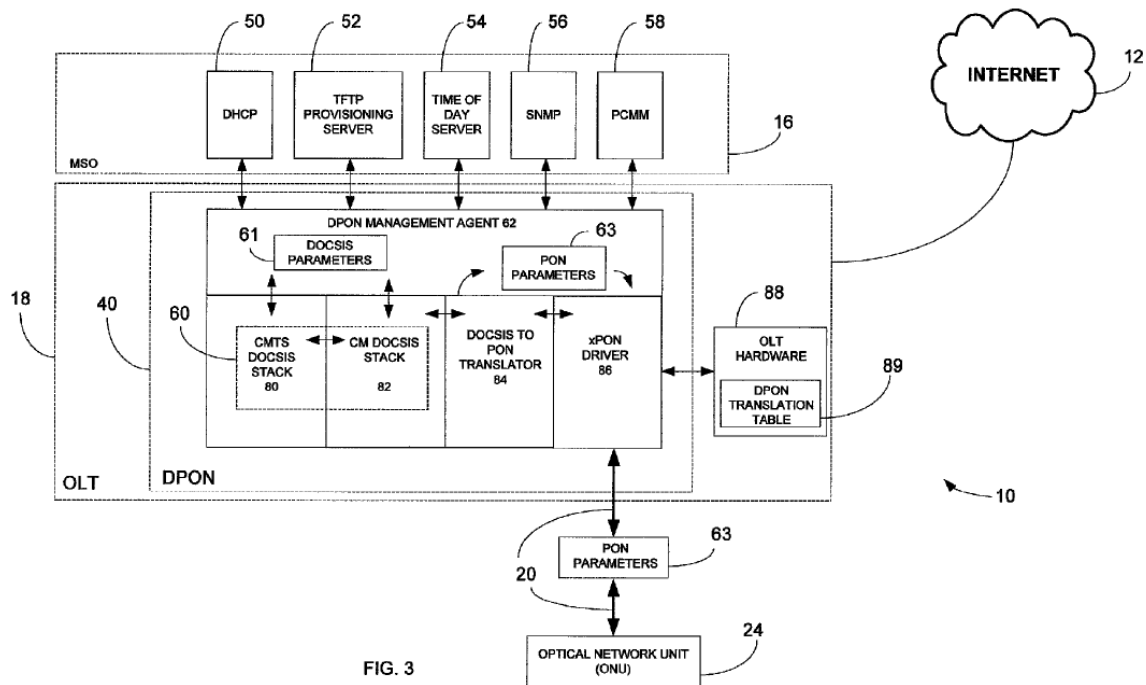


FIG. 3

Figure 3 shows DPON system 40 from Figure 1, in more detail. *Id.* at 3:37–38.

Passive Optical Network (PON) 10 illustrated in Figure 1 of Bernstein includes an Optical Line Termination (OLT) unit 18 that communicates over an optical cable 20 with one or more Optical Network Units (ONUs) 24.

Ex. 1006, 1:65–2:18. Bernstein mentions several different types of PON networks, such as Ethernet PON (EPON), Gigabit PON (GPON), and Wavelength-Divisional Multiplexing (WDM-PON). *Id.* PON 10 is a point-to-multipoint, fiber to the premises network architecture in which unpowered optical splitters are used to enable a single optical fiber 20 to serve multiple premises 22. *Id.* OLT 18 is located at a service provider central office head end 14, and receives Internet Packet (IP) data from a packet switched Wide Area IP network 12. *Id.* Packet data received by OLT 18 is converted into downstream optical signals and broadcast to each premises 22 sharing optical fiber 20. *Id.* ONUs 24 convert the optical signals carried over PON cable 20 back into digital packet data. *Id.* at 2:19–30. For example, ONUs 24 convert the optical signals into digital Ethernet packets that are sent over an Ethernet cable 26 to different Customer Premise Equipment (CPE), such as a phone 28, Personal Computer (PC) 30, and television Set-Top Box (STB) 32. *Id.*

A MSO network or “back office” 16 provides different network services, such as assigning IP addresses, providing Time of Day (ToD) information, and provisioning network resources. Ex. 1006, 2:30–39. Bernstein notes that while the services provided by MSO network 16 are readily available in cable networks, many of these services are not supported in PON networks. *Id.* Bernstein explains that “[t]here is a need to integrate PON subscribers 22 into the MSO backoffice network 16 as if they were cable modems,” however, “deploying a PON network 10 in an MSO network 16 is more than a protocol definition.” *Id.* at 2:40–44. To enable compatibility between MSO network 16 and PON network 10, OLT 18 is managed with a DOCSIS PON (DPON) system 40. *Id.* at 2:44–54.

DPON system 40 operates Cable Modem Termination System (CMTS) subscriber management software that acts as a gateway between a Cable Modem Termination System (CMTS) and PON 10. Ex. 1006, 2:44–60. DPON system 40 includes a translator that converts DOCSIS parameters obtained from MSO network 16 into PON parameters. *Id.* DPON system 40 operates with different PON standards that handle the layer one (physical layer) connection establishment to ONUS 24 while allowing the DOCSIS protocol to handle the second and third data link and network layers, respectively. *Id.*

Bernstein's Figure 3 (above) shows DPON system 40 in more detail. Ex. 1006, 3:36–46. As shown in Figure 3, Cable Modem Termination System (CMTS) stack 80 conducts some of the operations that would normally be performed by a CMTS in the head end of a DOCSIS cable network. *Id.* Cable Modem (CM) DOCSIS stack 82 conducts some of the operations that would normally be performed by a cable modem located at the customer premises of the DOCSIS cable network. *Id.* In this configuration, CMTS DOCSIS stack 80 and CM DOCSIS stack are located in OLT 18 of PON network 10. *Id.* CMTS stack 80 and CM stack 82 together operate as the cable modem proxy 60 that together communicate with MSO servers. *Id.* at 3:46–52. Operating both DOCSIS stacks 80 and 82 in OLT 18 effectively allow any of the services normally supported in a cable network to also be used in PON 10. *Id.* A DOCSIS-to-PON translator 84 is then used for converting parameters 61 obtained by cable modem proxy 60 into associated PON parameters 63 that can be used by OLT 18 and ONU 24. *Id.* at 3:52–63. Some of the translated PON parameters 63 are programmed into a PON driver 86 for either communicating with ONU 24 or sent over

optical cable 20 for configuring ONU 24. *Id.* The translated PON parameters 63 may also be used for operating or configuring OLT hardware 88. *Id.*

Bernstein's Figure 7, reproduced below, is a message diagram showing how the cable modem proxy conducts cable modem sessions on behalf of an ONU. Ex. 1006, 1:40–42.

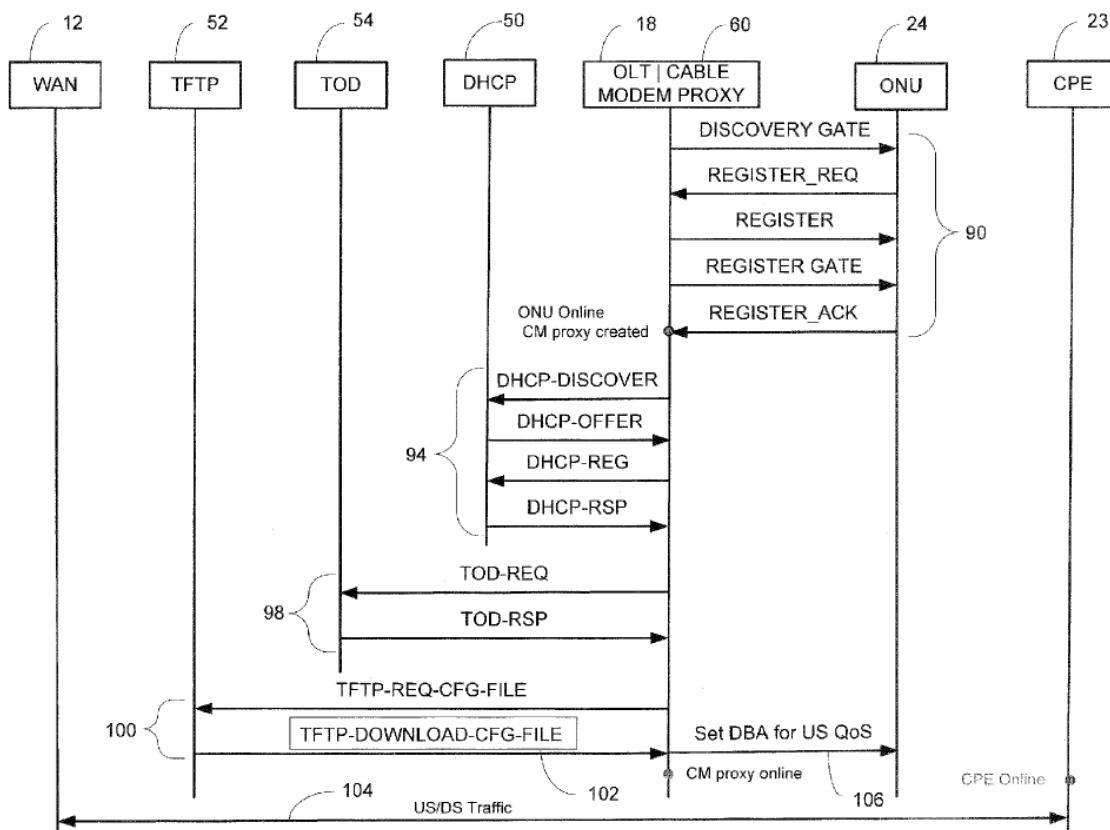


FIG. 7

Figure 7 is a message diagram showing how the cable modem proxy conducts cable modem sessions on behalf of an ONU. *Id.* at 1:40–42.

As shown in Figure 7, after physical layer establishment 90 and address registration 94, other services may be configured by CM proxy 60 on behalf of ONU 24. Ex. 1006, 5:22–25. For example, in a TFTP session 100, CM proxy 60 may send a TFTP request for a DOCSIS configuration file download. *Id.* at 5:31–40. TFTP server 52 replies with a TFTP download

configuration file 102. *Id.* The information in TFTP file 102 is then translated and used for configuring schedulers/classifiers or other features on OLT 18 and ONU 24. *Id.* For example, information in TFTP configuration file 102 may be used to configure Dynamic Bandwidth Allocation (DBA) 106 for Upstream (US) Quality of Service (QoS) between OLT 18 and ONU 24. *Id.* After the registration process is completed, communication links 104 are established between OLT 18 and ONU 24 that operate according to the DOCSIS parameters obtained by CM proxy 60 during sessions 94, 98, and 100. *Id.* at 5:40–48.

2. Tsuge

Tsuge is titled “Communication System Using Passive Optical Network and Passive Optical Network,” and discloses a communication system in which an OLT (Optical Line Terminal) transmits and receives a CMTS (Cable Modem Termination System)/CM (Cable Modem) apparatus control signal through an apparatus physical management interface which is physically identical to or different from a main signal interface, and processes the CMTS apparatus control signal by itself. Ex. 1008, codes (54), (57). When connection of a new ONU (Optical Network Unit, also called ONT (Optical Network Terminal) in Tsuge) is detected by an ONU apparatus control signal, an IP address is allocated by using the CM apparatus control signal in a manner similar to the CM. *Id.* at code (57). The CM apparatus control signal regarding the ONU is transmitted and received by using the IP address, and a mutual conversion is performed between the CM apparatus control signal and the ONU apparatus control signal. *Id.* The ONU processes the ONU apparatus control signal in a manner similar to the ONU based on an ordinary PON (passive optical network) standard. *Id.*

Figure 9 of Tsuge, reproduced below, illustrates a sequence diagram of the operation of a CM setting obtaining/converting function provided for the OLT. Ex. 1008, 6:4–6.

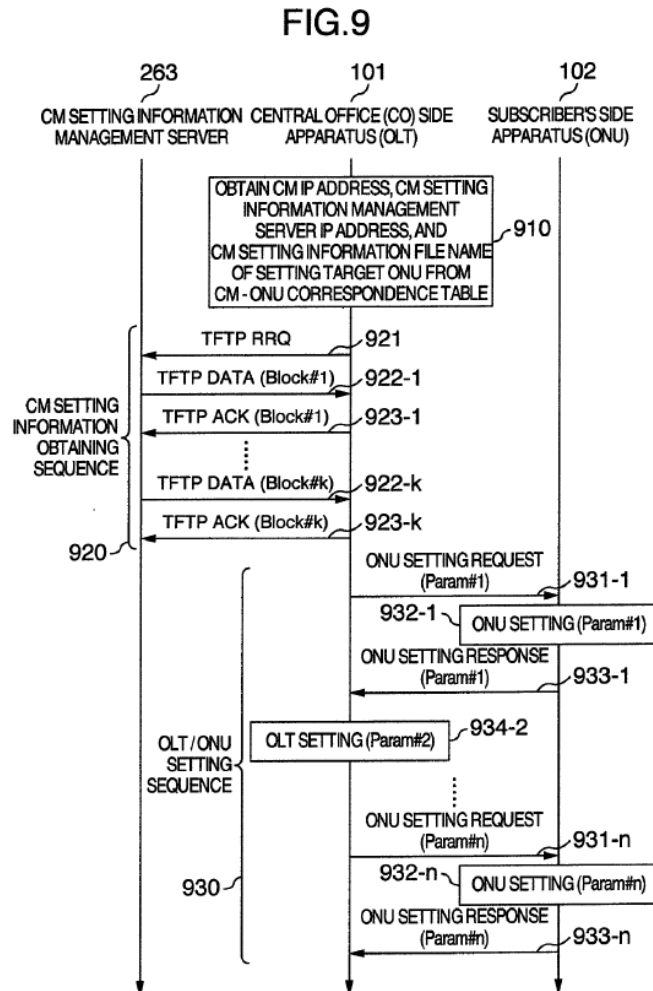


Figure 9 illustrates a sequence diagram of the operation of a CM setting obtaining/converting function provided for the OLT. *Id.* at 6:4–6.

Figure 9 shows an example of a CM setting process. Ex. 1008, 14:20–39. By using a CM-ONU correspondence table (551, described in more detail in Figure 11 of Tsuge, reproduced below), an OLT 101 obtains a CM IP address which has been made to correspond to the ONU as a target of a setting process, an IP address of a CM setting information management

server (item 263), and a file name of CM setting information (step 910 in Figure 9). *Id.*

OLT 101 then executes the CM setting information obtaining sequence by using the information obtained by the procedure illustrated at step 920 in Figure 9. Ex. 1008, 14:40–61. A CM setting information file (discussed in more detail with respect to Figure 12 of Tsuge, reproduced below) is obtained from CM setting information management server 263 by using the IP address of CM setting information management server 263 and a CM setting information file name. *Id.* The CM IP address which has already been obtained is used as a PON side IP address at the time when the CM setting information obtaining sequence is executed. *Id.* The CM setting information obtaining sequence is executed by using a CM setting information signal. *Id.* According to the DOCSIS standard, the sequence is executed in a form of obtaining the file by the TFTP (Trivial File Transfer Protocol). *Id.* That is, the sequence is executed by repeating a procedure comprising steps 921, 822, and 923 in Figure 9, k times (where k denotes the total number of blocks in the case where the CM setting information file is divided into TFTP data blocks). *Id.*

Subsequently, at step 930, OLT 101 executes an OLT/ONU setting sequence by using the obtained CM setting information file. Ex. 1008, 14:62–15:22. More particularly, by using an algorithm shown in Figure 13 of Tsuge (reproduced below), OLT 101 sequentially interprets setting parameters included in the CM setting information file. *Id.* The contents of the setting parameters are converted into an ONU setting information signal or the settings to the OLT itself or into both of them. *Id.* In the case where they are converted into the settings to the OLT itself, the settings are reflected

to the OLT (step 934). *Id.* In the case where they are converted into the ONU setting information signal, an ONU setting request message is transmitted to ONU 102 as a setting target (step 931). *Id.* ONU 102, which received the ONU setting request message, reflects the requested setting to itself (step 932) and returns an ONU setting response message toward the OLT (step 933). *Id.* Each of the ONU setting request message and the ONU setting response message is one of the ONU setting information signal. *Id.*

Figure 11 of Tsuge, reproduced below, is a constructional diagram of a memory showing an example of a construction of a CM-ONU correspondence table provided for the OLT, and Figure 12 of Tsuge, reproduced below, is a frame constructional diagram showing an example of a construction of a CM setting information file which is obtained from a CM setting information management server. Ex. 1008, 6:10–16.

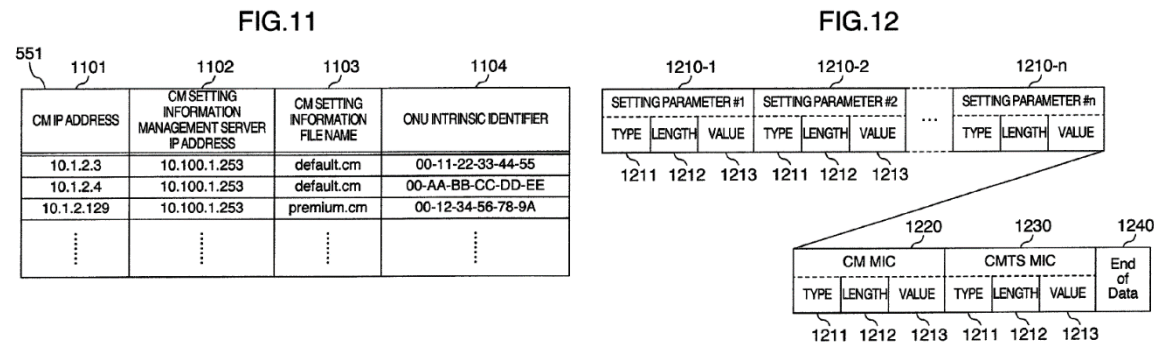


Figure 11 is a constructional diagram of a memory showing an example of a construction of a CM-ONU correspondence table (referenced with respect to step 910 in Figure 9) provided for the OLT, and Figure 12 is a frame constructional diagram showing an example of a construction of a CM setting information file (referenced with respect to step 920 in Figure 9) which is obtained from a CM setting information management server. *Id.* at 6:10–16.

As shown in Figure 11, a CM IP address 1101 obtained by a CM IP address obtaining process, and an ONU unique identifier 1104 corresponding to the CM IP address, are recorded in a CM-ONU correspondence table 551.

Ex. 1008, 15:59–16:8. Although the MAC address of ONU 102 is used as an ONU unique identifier 1104 in Figure 11, other information may be used if that information can identify the ONU. *Id.* Additional information, such as a CM setting information management server IP address 1102 and a CM setting information file name 1103, may be included in the CM-ONU correspondence table 551. *Id.*

As shown in Figure 12, a CM setting information file is constructed by zero or more setting parameters 1210, a CM MIC (Message Integrity Check) 1220, a CMTS MIC 1230, and an End of Data 1240. Ex. 1008, 16:9–33. Each parameter (including CM MIC and CMTS MIC) other than the End of Data 1240 has a TLV (Type-Length-Value) format constructed by a type 1211, a length 1212, and a value 1213. *Id.* A type value showing the meaning of each parameter 1210 is stored in the type 1211, and a specific type value allocated to each of CM MIC 1220 and CMTS MIC 1230 is stored in each of them. *Id.* The length 1212 indicates a byte length of the value 1213, and a setting value of each setting parameter 1210 is stored in value 1213. *Id.* A hash value calculated on the basis of all or part of the setting parameters is stored in value 1213 of CM MIC 1220 and CMTS MIC 1230. *Id.*

Figure 13 of Tsuge, reproduced below, is an operation flowchart of the operation of the CM setting obtaining/converting function provided for the OLT. Ex. 1008, 6:17–20.

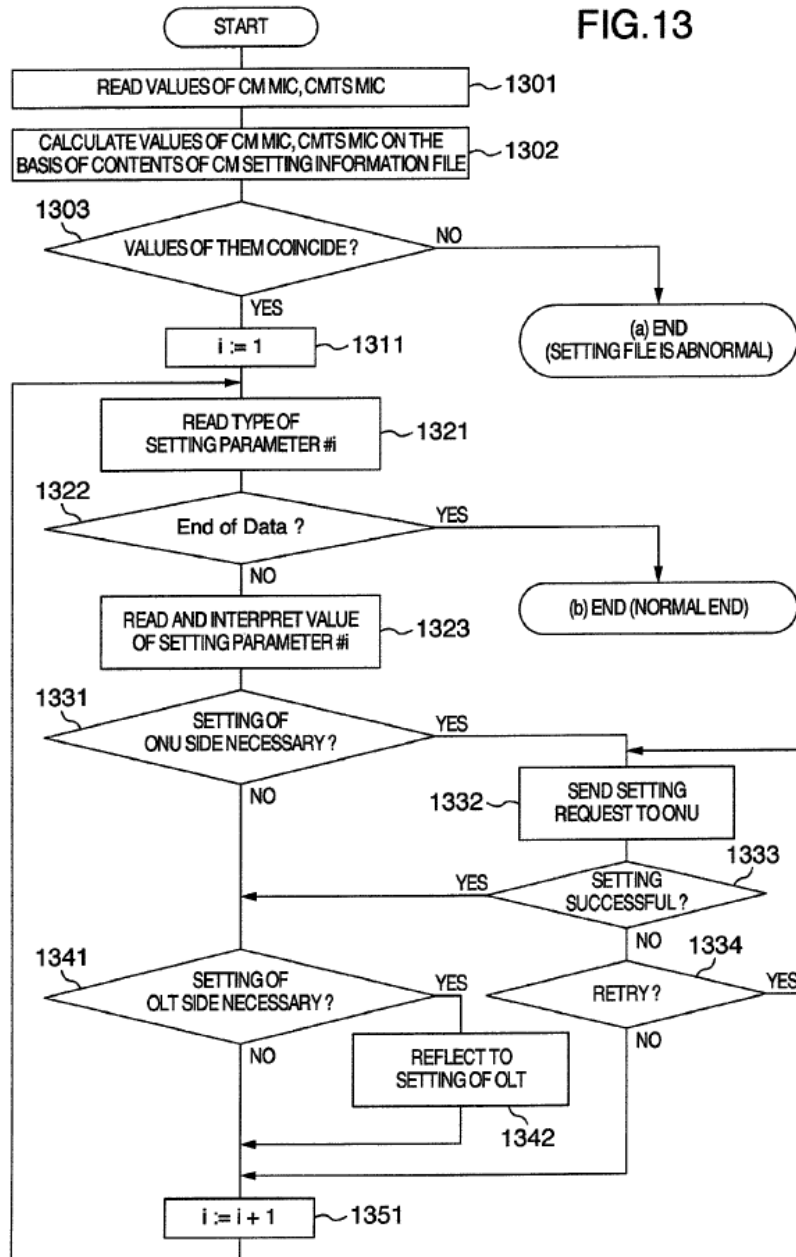


Figure 13 is an operation flowchart of the operation of the CM setting obtaining/converting function provided for the OLT. *Id.* at 6:17–20.

As shown in Figure 13, when the CM setting information file is obtained by the CM setting information obtaining sequence in Figure 9 of Tsuge (above), first (step 1301), the CM setting obtaining/converting function in OLT 101 searches for the parameters of the CM MIC and the CMTS MIC from the file and reads out their values. Ex. 1008, 16:39–52.

Subsequently, hash values of the CM MIC and CMTS MIC are calculated on the basis of all or part of the setting parameters in the CM setting information file (step 1302), and the MIC value in step 1301 and the MIC value in step 1302 are compared (step 1303). *Id.* If they do not coincide, it is determined that there is an abnormality in the CM setting information file, and the process regarding the CM setting information file is finished; but if they coincide, the processing routine advances to next step. *Id.*

At step 1311, a loop variable i is initialized to “1” in order to sequentially read the setting parameters, and the type of the i^{th} setting parameter from the top is read out (step 1321). Ex. 1008, 16:53–63. If the type value indicates the End of Data (step 1322), it is determined that the setting corresponding to the setting file has been completed, and the process regarding the CM setting information file is done. *Id.* If the type value indicates other than the End of Data, the value of the setting parameter is read out and the kind of settings necessary in the PON are interpreted together with the type value (step 1323). *Id.*

If the setting of the ONU is necessary (step 1331) as a result of the interpretation in step 1323, the corresponding ONU setting request message is transmitted to the ONU (step 1332). Ex. 1008, 16:64–17:11. Thus, if the setting has successfully been made (if an ONU setting response message showing the success in the setting has been received) (step 1333), step 1341 follows. *Id.* If the setting has failed (if an ONU setting response message showing the failure of the setting has been received), whether or not the setting should be retried is discriminated on the basis of the contents of the failure and the number of retry times so far (step 1334). *Id.* If the setting should be retried, the processing routine is returned to step 1332, and if the

setting should not be retried, step 1351 follows. *Id.* If the setting on the OLT side is necessary, the setting is reflected to the OLT (step 1342). *Id.* at 17:12–17.

3. MEF 6.1

MEF 6.1 is a Technical Specification including Ethernet Services Definitions, provided by the Metro Ethernet Forum (MEF). Ex. 1007, 1. MEF 6.1 defines three generic service constructs called Ethernet Service types, and specifies their associated service attributes and parameters used to create Point-to-Point, Multipoint-to-Multipoint, and Rooted-Multipoint Ethernet services. *Id.* at 6. MEF 6.1 also defines the requirements for several Ethernet services that use these generic Ethernet Service types. *Id.*

More particularly, MEF 6.1 defines an Ethernet Service type called E-Tree (Ethernet Tree), based on a Rooted-Multipoint Ethernet Virtual Connection (EVC). Ex. 1007, 11, 13. MEF 6.1 also updates service attributes and requirements for the existing defined Service Types of E-Line (Ethernet Line, based on a Point-to-Point EVC) and E-LAN (Ethernet LAN, based on a Multipoint-to-Multipoint EVC). *Id.* MEF 6.1 also defines more than one Ethernet Service for each of the three Ethernet Service types. *Id.* at 13, Table 2. For the E-Line Service Type, MEF 6.1 defines Ethernet Private Line (EPL) Private services (services using All to One Bundling UNIs (User Network Interfaces), port-based), and Ethernet Virtual Private Line (EVPL) Virtual Private services (services using UNIs that are that are Service Multiplexed (Virtual LAN (VLAN)-based)). *Id.* For the E-LAN Service Type, MEF 6.1 defines Ethernet Private LAN (EP-LAN) Private services (services using All to One Bundling UNIs, port-based), and Ethernet Virtual Private LAN (EVP-LAN) Virtual Private services (services using UNIs that are that are Service Multiplexed (VLAN-based)). *Id.* For the E-

Tree Service Type, MEF 6.1 defines Ethernet Private Tree (EP-Tree) Private services (services using All to One Bundling UNIs, port-based), and Ethernet Virtual Private Tree (EVP-Tree) Virtual Private services (services using UNIs that are that are Service Multiplexed (VLAN-based)). *Id.*

4. Independent Claim 1

As mentioned, Petitioner argues that claim 1 would have been obvious over Bernstein alone or in combination with Tsuge. Pet. 22. Petitioner provides a limitation-by-limitation analysis of claim 1, supported by expert testimony. *Id.* at 24–46. Patent Owner raises two issues regarding Petitioner’s analysis. First, Patent Owner asserts that Petitioner has not shown how the asserted art teaches or suggests “[a] service auto-configuration method,” recited in the preamble of claim 1. Prelim. Resp. 21–26. Second, Patent Owner argues that Petitioner has not shown that the asserted art teaches or suggests “analyzing the acquired configuration file,” recited in limitation 1b. *Id.* at 26–29. We address these disputed issues below.

a. A service auto-configuration method

Petitioner asserts that, to the extent that the preamble of claim 1 is limiting, Bernstein teaches that preamble. Pet. 24. Petitioner argues that Bernstein discloses “A Data Over Cable Service Interface Specifications (DOCSIS) Passive Optical Network (PON) system[.]” *Id.* Petitioner further argues that Bernstein explains that his system is implemented on an “Ethernet PON (EPON).” *Id.* Further, Petitioner asserts that Bernstein Figure 3 depicts a DPoE system comprising OLT 18 including DPON 40 and Cable Modem Proxy 60 (a virtual cable modem.) *Id.* (citing Ex. 1006, 3:37–46).

Patent Owner argues that Petitioner has not addressed how Bernstein purportedly teaches or suggests “[a] service auto-configuration method.”

Prelim. Resp. 21–22. As discussed in Section II.B. above, Patent Owner further argues that the preamble of claim 1 is limiting.

Petitioner does not appear to have addressed how Bernstein teaches or suggests “[a] service auto-configuration method.” Pet. 24. As set forth in Section II.B. above, however, we do not need to determine, and have not determined, whether the recitation of “[a] service auto-configuration method” in the preamble of claim 1 is a claim limitation. Thus, we have not determined whether Petitioner needed to provide sufficient proof that Bernstein teaches or suggests “[a] service auto-configuration method.”

b. analyzing the acquired configuration file

Petitioner asserts that Bernstein teaches limitation 1b—the limitation that recites analyzing the acquired configuration file. Pet. 28–29. Petitioner argues that, following downloading of the configuration file, Bernstein describes that DPON 40 includes a DOCSIS-to-PON translator 84 that analyzes the configuration file, obtaining configuration information of both the OLT and ONU, that it then converts into associated PON parameters 63 that can be used by the OLT 18 and ONU 24. *Id.* at 28. Petitioner further argues that the obtained information is used to configure both the ONU and OLT. *Id.*

Patent Owner argues that Petitioner fails to explain how Bernstein renders obvious the recited “DPOE system *analyzing* the acquired configuration file,” because Bernstein’s disclosure referenced by the Petition for limitation 1[b] “describes ‘converting’ and ‘translating’ parameters obtained by a cable modem proxy” but “does not discuss ‘analyzing’ that information.” Prelim. Resp. 26–29. Patent Owner asserts that limitation 1f, which recites “wherein, *when analyzing* the acquired configuration file, the DPOE system *further converts* the configuration information,” evidences

(together with limitation 1[b]) that claim 1 differentiates between “analyzing” and “converting,” and “[b]ecause analyzing and converting are two separate steps in the claims of the ’982 Patent, the terms must mean different things.” *Id.* at 29. Patent Owner further argues that Petitioner does not explain why it contends that ‘converting’ in Bernstein renders obvious ‘analyzing’ in claim [limitation] 1[b].” *Id.*

On this record, we agree with the Patent Owner that limitation 1f indicates that the terms analyzing and converting are not the same. Prelim. Resp. 29. Nevertheless, Patent Owner has not cited any language in claim 1, and we do not see any, that precludes the step of analyzing from being part of the process in limitation 1f that performs conversion. *Id.* Limitation 1f, in fact, sets forth that the recited analysis is part of the same process as the recited conversion. Further, here, we have expert testimony on behalf of Petitioner that Bernstein’s process, which converts parameters, also analyzes the configuration file. Ex. 1005 ¶ 96. Patent Owner’s contrary argument is based on mere attorney argument, which is not evidence. Prelim. Resp. 29; *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974). We determine that, on this record, Petitioner provides a sufficient showing for the recitation of analyzing the acquired configuration file in limitation 1b.

c. Summary

As discussed above, we have not determined whether the recitation of a service auto-configuration method in the preamble of claim 1 is a claim limitation. Thus, we have not determined whether Petitioner has demonstrated a reasonable likelihood of proving that claim 1 would have been obvious over Bernstein alone or in combination with Tsuge. As mentioned, we do not need to make that determination because, as set forth below, we have determined that Petitioner has demonstrated a reasonable

likelihood of proving that other claims would have been obvious over Bernstein alone or in combination with Tsuge.

5. Dependent Claim 2

The disputed issues for claim 2 are the same as for claim 1, from which claim 2 depends. Prelim. Resp. 21–29, Ex. 1001, 8:58–60. As discussed in Section III.A.4 above, we have not determined whether Petitioner has demonstrated a reasonable likelihood of proving that claim 1 would have been obvious over Bernstein alone or with Tsuge. Therefore, we have also not determined whether Petitioner has demonstrated a reasonable likelihood of proving that claim 2 would have been obvious over Bernstein alone or with Tsuge.

6. Dependent Claim 5

Claim 5 depends on claim 4, which was canceled. Ex. 1001, 9:23–29; Ex. 2007. Below we address the limitations of claim 4 and the additional limitation that claim 5 adds to claim 4. As indicated below, Patent Owner disputes Petitioner’s showing regarding limitation 4c. Prelim. Resp. 26–29. Patent Owner does not dispute Petitioner’s showing regarding any other limitation of claim 4 or claim 5. *Id.* at 21–29.

a. [4[preamble]] A data over cable service interface system (DOCSIS) Provisioning Of EPON (DPOE) system

Petitioner argues that Bernstein discloses “A Data Over Cable Service Interface Specifications (DOCSIS) Passive Optical Network (PON) system[.]” Pet. 24, 46. Petitioner further argues that Bernstein explains that his system is implemented on an “Ethernet PON (EPON).” *Id.* After

reviewing the record, we determine that Petitioner has made a sufficient showing for the preamble of claim 4.⁷

b. [4a] an acquisition unit, an analyzing unit and a configuration unit; wherein, during an process of an optical network unit (ONU) initialization,

Petitioner argues that Bernstein teaches an acquisition unit by disclosing a DPoE system comprising OLT 18, including DPON 40 and its cable modem proxy 60, comprising software and related hardware configured to acquire a configuration file from a back-office management system.

Pet. 47. Petitioner asserts that Bernstein discloses an analyzing unit by disclosing a DPoE system comprising OLT 18, with DPON 40 and included DOCSIS-to-PON translator 84, comprising software and related hardware configured to analyze the acquired configuration file and obtain both the configuration information of the ONU and the configuration information of the OLT. *Id.* Further, Petitioner asserts that Bernstein discloses a configuration unit by disclosing a DPoE system comprising OLT 18, with DPON 40 and its incorporated “xPon Driver 86,” comprising software and related hardware configured to configure the OLT locally according to the configuration information of the OLT and meanwhile configure the ONU according to the configuration information of the ONU via a management channel between the OLT and ONU. *Id.* at 47–48. Further, Petitioner argues that Bernstein discloses that its acquisition unit, analyzing unit and configuration unit operate during a process of an optical network unit (ONU) initialization. *Id.* at 39–42, 48.

⁷ In light of Petitioner’s showing, we do not need to, and do not, determine whether the preamble of claim 4 is limiting.

After reviewing the record, we determine that Petitioner has made a sufficient showing for limitation 4a.

c. [4b] the acquisition unit is configured to acquire a configuration file from a back-office management system, wherein the configuration file comprises configuration both information of the ONU and configuration information of an optical line terminal (OLT) in the DPOE system;

Petitioner argues that Bernstein discloses an acquisition unit (DPON 40 and/or Cable Modem Proxy 60) configured to acquire a configuration file from a back-office management system and that the acquired configuration file comprises configuration both information of the ONU and configuration information of an optical line terminal (OLT) in the DPoE system. Pet. 48. Petitioner argues that Bernstein teaches a DPoE system at least because it discloses OLT 18 inclusive of DPON 40 and Cable Modem Proxy 60. *Id.* at 24. Further, Petitioner argues that Figures 3 and 7 of Bernstein show that Bernstein's DPoE system acquires a configuration file from a back-office management system. *Id.* at 25. Petitioner further asserts that the acquired configuration file consists of both configuration of an optical network unit (ONU) and configuration information of an optical line terminal (OLT). *Id.* at 26–27. Petitioner quotes Bernstein's disclosure that “[t]he information in the TFTP file 102 is then translated and *used for configuring* schedulers/classifiers or other features on *the OLT 18 and ONU 24.*” Pet. 24 (quoting Ex. 1005 ¶ 63, which quotes Ex. 1006, 5:31–40) (emphasis by Petitioner).

After reviewing the record, we determine that Petitioner has made a sufficient showing for limitation 4b.

d. [4c] the analyzing unit is configured to analyze the acquired configuration file and obtain both the configuration information of the ONU and the configuration information of the OLT;

Petitioner argues that Bernstein discloses an analyzing unit (DPON 40 and/or DOCSIS-to-PON translator 84) configured to analyze the acquired configuration file and obtain both the configuration information of the ONU and the configuration information of the OLT. Pet. 49. Petitioner asserts that, following downloading of the configuration file, Bernstein describes that DPON 40 includes a DOCSIS-to-PON translator 84 that analyzes the configuration file, obtaining configuration information of both the OLT and ONU, that it then converts into associated PON parameters 63 that can be used by the OLT 18 and ONU 24. *Id.* at 28. These arguments are similar to the arguments Petitioner made for limitation 1b. *See* Section III.A.4.b above. For limitation 4c, Patent Owner makes the same arguments as for limitation 1b. Prelim. Resp. 26–29.

As set forth in Section III.A.4.b above, for this Decision, we resolved the disputed issues for limitation 1b in favor of Petitioner. After reviewing the record, we determine that Petitioner has made a sufficient showing for limitation 4c.

e. [4d] the configuration unit is configured to configure the OLT locally according to the configuration information of the OLT and meanwhile configure the ONU according to the configuration information of the ONU via a management channel between the OLT and the ONU.

Petitioner argues that Bernstein discloses a configuration unit (DPON 40 and/or driver 86) that is configured to configure the OLT locally according to the configuration information of the OLT and meanwhile

configure the ONU according to the configuration information of the ONU via a management channel between the OLT and the ONU. Pet. 49. In particular, Petitioner argues that Bernstein discloses a configuration unit by disclosing a DPoE system comprising OLT 18, with DPON 40 and its incorporated “xPon Driver 86,” comprising software and related hardware configured to configure the OLT locally according to the configuration information of the OLT and meanwhile configure the ONU according to the configuration information of the ONU via a management channel between the OLT and the ONU. *Id.* at 47–48. Petitioner argues that the configuration of the OLT and ONU occurs contemporaneously. *Id.* at 49. Petitioner asserts that Figure 7 of Bernstein shows an ONU being configured at the same time as an OLT with information from the same downloaded configuration file. *Id.* at 32.

After reviewing the record, we determine that Petitioner has made a sufficient showing for limitation 4d.

f. [5] The system according to claim 4, wherein, the analyzing unit is further configured to, when analyzing the acquired configuration file, convert the configuration information of the ONU into a message format which can be identified by the ONU and convert the configuration information of the OLT into a message format which can be identified by the OLT.

Petitioner argues that Bernstein discloses, or at least renders obvious, the limitation that claim 5 adds to claim 4. Pet. 50. Petitioner maps the recited analyzing unit to cable modem proxy 60. *Id.* Petitioner argues that Bernstein explains that the parameters extracted from its configuration file are converted into a message format understandable by an ONU. *Id.* at 43. Petitioner further argues that Bernstein describes messages formatted for the

OLT defining overall bandwidth and/or the relative priority of each service opened by the ONU. *Id.* at 44.

After reviewing the record, we determine that Petitioner has made a sufficient showing for the limitation that claim 5 adds to claim 4.

g. Summary

We determine that Petitioner has demonstrated a reasonable likelihood of proving that claim 5 would have been obvious over Bernstein alone.

7. Independent Claim 6

Petitioner sets forth how it contends that Bernstein teaches or suggests every limitation of claim 6. Pet. 50–53. Patent Owner disputes Petitioner’s showing with respect to the preamble of claim 6 and limitation 6d. Prelim. Resp. 21–29. We address these disputed issues below.

a. A Service Auto-Configuration Network

The preamble of claim 6 recites “[a] service auto-configuration network.” Patent Owner argues that the preamble of claim 6 is limiting and that Petitioner has not shown that Bernstein teaches or suggests “[a] service auto-configuration network.” Prelim. Resp. 21–29. As set forth in Section II.B, for purposes of this Decision, we determined the preamble of claim 6 is not limiting. We, however, agree with Patent Owner that Petitioner does not appear to have shown how Bernstein teaches or suggests “[a] service auto-configuration network.” Pet. 24, 50. Nevertheless, because the preamble is not limiting, we do not find Petitioner’s showing for the preamble of claim 6 to be deficient.

b. Analyzing a Configuration File

Limitation 6d recites an analyzing unit is configured to analyze the acquired configuration file. For this limitation, Petitioner relies on its

showing for limitation 4c. Pet. 80. Further, Patent Owner presents the same arguments as for limitation 4c. Prelim. Resp. 26–29.

As set forth in Section III.A.6.d, for this Decision, we resolved the disputed issues for limitation 4c in favor of Petitioner. After reviewing the record, we determine that Petitioner has made a sufficient showing for the limitation 6d.

c. Undisputed Limitations

After reviewing the record, we determine that Petitioner has made a sufficient showing for the undisputed limitations of claim 6.

d. Summary

Petitioner has demonstrated a reasonable likelihood of proving that claim 6 would have been obvious over Bernstein alone or in combination with Tsuge.

8. Dependent Claims 7–9 and 11

Petitioner argues dependent claims 7–9 and 11 would have been obvious over Bernstein alone or in combination with Tsuge. Pet. 53–55. The disputed issues for claims 7–9 and 11 are the same as for claim 6. Prelim. Resp. 21–29. After reviewing the record, we determine that Petitioner has demonstrated a reasonable likelihood of proving that claims 7–9 and 11 would have been obvious over Bernstein alone or in combination with Tsuge.

B. Asserted Obviousness Over Bernstein, MEF 6.1 and Tsuge

Petitioner argues that claims 3 and 10 would have been obvious over Bernstein in combination with MEF 6.1 and/or Tsuge. Pet. 22. The disputed issues for claim 3 for this ground are the same as for claim 1 for Ground 1. Prelim. Resp. 21–29. The disputed issues for claim 10 for this ground are the same as for claim 6 for Ground 1. *Id.*

As set forth in Section III.A.4.b above, we have not resolved all disputed issues for claim 1 for Ground 1, so similarly, at this stage, we have not determined whether a Petitioner has demonstrated a reasonable likelihood of establishing that claim 3 would have been obvious over Bernstein alone or in combination with MEF 6.1 and/or Tsuge. As set forth in Section III.A.7 above, we resolved the disputed issues for claim 6 for Ground 1 in favor of Petitioner. After reviewing the record, we determine that Petitioner has demonstrated a reasonable likelihood of establishing that claim 10 would have been obvious over Bernstein alone or in combination with MEF 6.1 and/or Tsuge.

C. Asserted Obviousness Over Tsuge and Bernstein

Petitioner argues that claims 1, 2, 5–9, and 11 would have been obvious over Tsuge alone or in combination with Bernstein. Pet. 22; Ex. 2007.

1. Independent Claim 1

There are two disputed issues for claim 1. First, Patent Owner asserts that Petitioner has not shown how the asserted art teaches or suggests “[a] service auto-configuration method,” recited in the preamble of claim 1. Prelim. Resp. 30–31. Second, Patent Owner argues that Petitioner has not shown that Tsuge teaches or suggests “converting configuration information for the OLT into a message format.” *Id.* at 31–33. We address these issues below.

a. A Service Auto-configuration Method

Petitioner asserts that, to the extent that the preamble of claim 1 is limiting, Tsuge teaches that preamble. Pet. 60. Petitioner argues Tsuge discloses a method for provisioning DOCSIS services on ONU/OLT

hardware in a GE-PON (i.e., Gigabyte Ethernet PON), or any other type of PON. *Id.* Patent Owner asserts that Petitioner has not addressed how Tsuge teaches or suggests “[a] service auto-configuration method.” Prelim.

Resp. 21–22. As discussed in Section II.B. above, Patent Owner further argues that the preamble of claim 1 is limiting.

Petitioner does not appear to have addressed how Tsuge teaches or suggests “[a] service auto-configuration method.” Pet. 60. As set forth in Section II.B. above, however, we do not need to determine, and have not determined, whether the recitation of “[a] service auto-configuration method” in the preamble of claim 1 is a claim limitation. Thus, we have not determined whether Petitioner needed to provide sufficient proof that Tsuge teaches or suggests “[a] service auto-configuration method.”

b. Converting Configuration Information

Limitation 1g recites “the DPOE system . . . converts the configuration information of the OLT into a message format which can be identified by the OLT.” Petitioner argues that Tsuge explains the CM setting information is converted into settings to the OLT itself. Pet. 72–73. Further, Petitioner asserts that Figure 9 of Tsuge depicts storage of upstream communication bandwidth setting information as a setting for the LLID in the OLT as part of the OLT-ONU setting sequence 930 (step 1810). *Id.* at 73. In addition, Petitioner argues that it would have been obvious to an ordinarily skilled artisan, in light of the artisan’s knowledge and/or in light of the teachings of Bernstein, to convert CM setting information into a message format would be understood by the OLT, because the setting information would otherwise be unusable. *Id.* According to Petitioner, an ordinarily skilled artisan would have understood how to make such a conversion and would have had a reasonable expectation of success in doing so. *Id.*

Patent Owner argues that neither of the sections of Tsuge cited by Petitioner describe converting information of the OLT into a message format that can be read by the OLT. Prelim. Resp. 31–32. Patent Owner also argues that the sections of Tsuge cited by Petitioner demonstrate that Tsuge does not require conversion in the OLT and thus an ordinarily skilled artisan would not modify Tsuge to provide for such a conversion. *Id.* at 33.

On this record, we agree with Patent Owner that it is not clear how the sections of Tsuge cited by Petitioner (Ex. 1008, 4:46–51, 18:25–36) teach or suggest converting the configuration information of the OLT into a message format which can be identified by the OLT. On this record, however, we do not read the cited sections of Tsuge as teaching that Tsuge does not require conversion in the OLT. Further, on this record, Petitioner has provided a sufficient showing, including expert testimony, that an ordinarily skilled artisan would have modified Tsuge in light of the teachings in Bernstein to provide for the requisite conversion. Ex. 1005 ¶¶ 151–153. Thus, we determine that Petitioner has made a sufficient showing for limitation 1g.

c. Summary

As discussed above, we have not determined whether the recitation of a service auto-configuration method in the preamble of claim 1 is a claim limitation. Thus, we have not determined whether Petitioner has demonstrated a reasonable likelihood of proving that claim 1 would have been obvious over Tsuge alone or in combination with Bernstein.

2. Dependent Claim 2

The disputed issues for claim 2 are the same as for claim 1. Prelim. Resp. 30–33. As discussed in Section III.C.1 above, we have not determined whether Petitioner has demonstrated a reasonable likelihood of proving that claim 1 would have been obvious over Tsuge alone or with Bernstein.

Therefore, we have also not determined whether Petitioner has demonstrated a reasonable likelihood of proving that claim 2 would have been obvious over Tsuge alone or with Bernstein.

3. Dependent Claim 5

The disputed issue for claim 5 is the same as for limitation 1g. Prelim. Resp. 31–33. In particular, Patent Owner argues that Petitioner has not shown that Tsuge teaches or suggests the limitation that claim 5 adds to claim 4. *Id.* As Patent Owner notes:

Claim 1[g] of the '928 Patent states that “the DPOE system . . . converts the configuration information of the OLT into a message format which can be identified by the OLT.” Claim 5 similarly recites “[t]he system according to claim 4, wherein, the analyzing unit is further configured to . . . convert the configuration information of the OLT into a message format which can be identified by the OLT.”

Prelim. Resp. 31. For this ground, Patent Owner presents the same arguments for the limitation that claim 5 adds to claim 4 as for limitation 1g. *Id.* at 31–33. As set forth in Section III.C.1.b above, for this Decision, we resolved that disputed issue in favor of Petitioner. After reviewing the record, we determine that Petitioner has demonstrated a reasonable likelihood of proving that claim 5 would have been obvious over Tsuge alone or with Bernstein.⁸

4. Independent Claim 6

Petitioner sets forth how it contends that Tsuge alone or in combination with Bernstein teaches or suggests every limitation of claim 6. Pet. 50–53. Patent Owner disputes Petitioner’s showing with respect to the

⁸ In light of Petitioner’s showing, we do not need to, and do not, determine whether the preamble of claim 4 is limiting.

preamble of claim 6 and limitation 6f.⁹ Prelim. Resp. 21–29. We address these disputed issues below.

a. A Service Auto-Configuration Network

The preamble of claim 6 recites “[a] service auto-configuration network.” Patent Owner argues that the preamble of claim 6 is limiting and that Petitioner has not shown that Tsuge teaches or suggests “[a] service auto-configuration network.” Prelim. Resp. 30. As set forth in Section II.B, for purposes of this Decision, we have determined the preamble of claim 6 is not limiting. We, however, agree with Patent Owner that Petitioner does not appear to have shown how Tsuge teaches or suggests “[a] service auto-configuration network.” Pet. 60, 78. Nevertheless, because the preamble is not limiting, we do not find Petitioner’s showing for the preamble of claim 6 to be deficient.

b. Saving the Configuration File

Limitation 6f recites “the back-office management system is configured to: save the configuration file.” Petitioner provides the following annotated version of Figure 11 of Tsuge as part of its showing for this limitation:

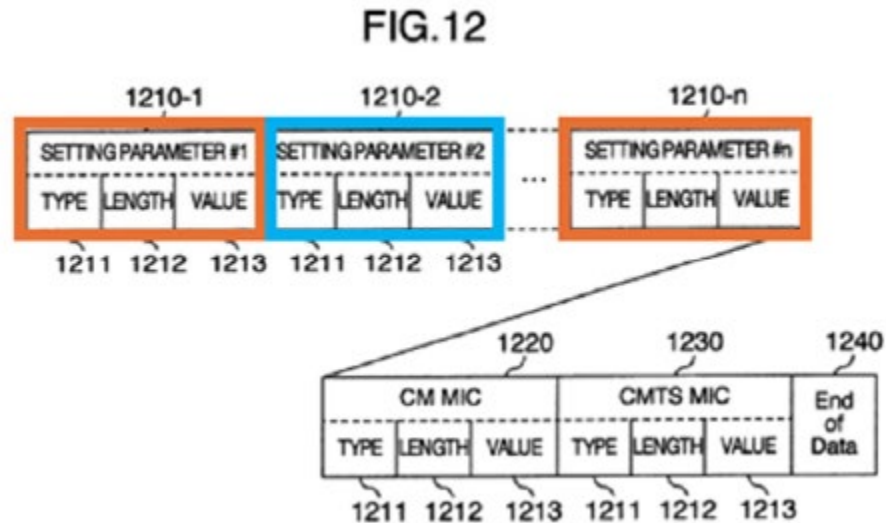
⁹ Patent Owner indicated that it was disputing Petitioner’s showing for limitation 6e. Prelim. Resp. 34–36. The recitation that Patent Owner quoted and relied on, however, is from limitation 6f (i.e., “the back-office management system is configured to: save the configuration file.”), not limitation 6e. *Id.* at 34. Thus, Patent Owner’s reference to limitation 6e appears to have been erroneous.

FIG. 11

CM IP ADDRESS	CM SETTING INFORMATION MANAGEMENT SERVER IP ADDRESS	CM SETTING INFORMATION FILE NAME	ONU INTRINSIC IDENTIFIER
10.1.2.3	10.100.1.253	default.cm	00-11-22-33-44-55
10.1.2.4	10.100.1.253	default.cm	00-AA-BB-CC-DD-EE
10.1.2.129	10.100.1.253	premium.cm	00-12-34-56-78-9A
⋮	⋮	⋮	⋮

Pet. 81. Figure 11 of Tsuge is a constructional diagram of a memory showing an example of a construction of a CM-ONU correspondence table provided for the OLT. Ex. 1008, 15:59–61. Referencing the above annotated figure, Petitioner argues Tsuge discloses a conventional DOCSIS back-office TFTP server (the column for which is outlined in purple) that saves configuration files (the column for which is outlined in dark green) that contain both configuration information of the ONU and of the OLT (the columns for which is outlined in orange), and download that file to the DPoE system in response to a request for a configuration file. Pet. 80–81. Petitioner further asserts that the OLT requests and obtains the file using “the TFTP” in accordance with DOCSIS. *Id.* at 81.

Petitioner argues that Tsuge also explains that the configuration file comprises the configuration information of the ONU and the configuration information of the OLT in the DPoE system. Pet. 81. To illustrate this, Petitioner provides the following annotated version of Figure 12 of Tsuge:



Pet. 82. Figure 12 of Tsuge above is a frame constructional diagram showing an example of a construction of the CM setting information file which is obtained from the CM setting information management server by the OLT by the CM setting information obtaining sequence. Ex. 1008, 16:9–13.

Petitioner argues that the above annotated version of Figure 12 shows parameters for configuring ONUs in orange and OLTs in blue. Pet. 81.

Patent Owner argues that the annotated version of Figure 11 of Tsuge above does not teach or suggest a step of saving a configuration file. Prelim. Resp. 34. Patent Owner also asserts that Petitioner has not argued that the annotated version of Figure 12 of Tsuge above discloses a back office management system saving a configuration file. *Id.* at 35. Further, Patent Owner argues that Tsuge explains that is a frame constructional diagram showing an example of a construction of the CM setting information file which is *obtained* from the CM setting information management server by the OLT by the CM setting information obtaining sequence. *Id.* Patent Owner argues that obtaining is not the same as saving. *Id.*

On this record, we resolve this disputed issue in favor of Petitioner. Petitioner maps the recited back office management system to the CM

Information Management Server identified in column 1102 of Figure 11 of Tsuge. Pet. 80–81. Patent Owner does not challenge that mapping. Prelim. Resp. 34–36. Figure 11 is a diagram of a *memory*, which identifies a file name (*see* column 1103) that is associated with an information management server identified in column 1102. Ex. 1008, 15:59–61. On this record, we agree with Petitioner that the disclosure of the memory of Figure 11 at least suggests that the identified information management server saves the configuration file because the management server correlation with the configuration file is saved in memory and the configuration file is a file with a file name. Further, this argument by Petitioner is supported by expert testimony, whereas Patent Owner’s counterargument is not. Ex. 1005 ¶¶ 171–172; Prelim. Resp. 34–36.

5. Dependent Claims 7–9 and 11

The disputed issues for claims 7–9 and 11 are the same as for claim 6. Prelim. Resp. 30–36. After reviewing the record, we determine that Petitioner has demonstrated a reasonable likelihood of proving that claim 7–9 and 11 would have been obvious over Tsuge alone or in combination with Bernstein.

D. Asserted Obviousness Over Tsuge, MEF 6.1 and Bernstein

Petitioner argues that claims 3 and 10 would have been obvious over Tsuge in combination with MEF 6.1 and/or Bernstein. Pet. 22. The disputed issues for claim 3 for this ground are the same as for claim 1 for Ground 3. Prelim. Resp. 30–33. The disputed issues for claim 10 for this ground are the same as for claim 6 for Ground 3. *Id.* at 30–31, 34–36.

As set forth in Section III.A.4.b above, we have not resolved all disputed issues for claim 1 for Ground 3, so, at this stage, we have not determined whether Petitioner has demonstrated a reasonable likelihood of

establishing that claim 3 would have been obvious over Tsuge alone or in combination with MEF 6.1 and/or Bernstein. As set forth in Section III.A.7 above, we resolved the disputed issues for claim 6 for Ground 3 in favor of Petitioner. After reviewing the record, we determine that Petitioner has demonstrated a reasonable likelihood of proving that claim 10 would have been obvious over Tsuge alone or in combination with MEF 6.1 and/or Bernstein.

IV. DISCRETIONARY DENIAL IN VIEW OF PARALLEL LITIGATION

Under § 314(a), the Director possesses “broad discretion” in deciding whether to institute an *inter partes* review. See 35 U.S.C. § 314(a); *Saint Regis Mohawk Tribe v. Mylan Pharms. Inc.*, 896 F.3d 1322, 1327 (Fed. Cir. 2018). The Director is “permitted, but never compelled,” to institute an *inter partes* review. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016). The Board decides whether to institute an *inter partes* review on the Director’s behalf. 37 C.F.R. § 42.4(a) (2023).

Based on *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), Patent Owner argues that we should exercise our discretion under § 314(a) to deny institution in view of the Related Litigation. Prelim. Resp. 3–10. Petitioner asserts the opposite. Pet. 12–14.

A. Nonexclusive Factors to Consider

When deciding whether to exercise discretion under § 314(a) to deny institution, the Board has considered the status of litigation involving the parties in light of the AIA’s objective “to provide an effective and efficient alternative to district court litigation.” *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 12, 19–20 (PTAB Sept. 12, 2018) (precedential) (“*NHK*”). The Board has set forth the following nonexclusive

factors to consider when determining whether to exercise discretion under § 314(a) to deny institution due to the advanced state of parallel litigation:

- (1) whether the court granted a stay or evidence exists that one may be granted if the Board institutes a trial;
- (2) the proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
- (3) the investment in the parallel litigation by the court and the parties;
- (4) the overlap in the issues raised by the petition and the issues in the parallel litigation;
- (5) whether the petitioner and the defendant in the parallel litigation are the same party; and
- (6) other circumstances that impact the Board's exercise of discretion, including the merits.

Fintiv, IPR2020-00019, Paper 11 at 5–6.

These factors “relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Fintiv*, IPR2020-00019, Paper 11 at 6. Further, *Fintiv* instructs that the Board should take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.*; see PTAB Consolidated Trial Practice Guide at 55–56, 58 (Nov. 2019) (“CTPG”).¹⁰

We also follow the Director's Memorandum setting forth an Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with

¹⁰ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

Parallel District Court Litigation (June 21, 2022) (“Director’s Memo”).¹¹ As specified in the Director's Memo, “compelling, meritorious challenges will be allowed to proceed at the PTAB even where district court litigation is proceeding in parallel.” Director's Memo 4. The Director's Memo, however, does not require that a petitioner establish compelling merits to avoid discretionary denial. Additionally, the Director clarified that “[t]he Board should first assess Fintiv factors 1–5; if that analysis supports discretionary denial, the Board should engage the compelling merits question.”

CommScope Techs. LLC v. Dali Wireless, Inc., IPR2022-01242, Paper 23 at 6 (PTAB Feb. 27, 2023) (precedential).

B. Analysis

As discussed in Section I.A above, the Related Litigation is *Croga Innovations Ltd. v. Cisco Systems, Inc.*, 2:24-cv-00065-JRG (E.D. Tex.).

1. Factor 1: Stay

There is no stay in the Related Litigation. Pet. 13; Prelim. Resp. 4. The Petition indicates that the Petitioner planned to file a motion for a stay, but as of the time the parties filed the Petition and the Preliminary Response, no motion requesting a stay of the district court proceedings had been filed by either party. Pet. 13; Prelim. Resp. 4. Petitioner contends that without specific evidence how the court will rule, Factor 1 is neutral Pet. 13. Patent Owner contends that “the E.D. Tex. litigation court has a policy of denying all ‘pre-institution’ motions to stay.” Prelim. Resp. 5. Patent Owner further argues that Petitioner has not filed a petition for *inter partes* review one of

¹¹ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

the patents in suit in the Related Litigation so the district court would not stay that litigation. *Id.* Further, Patent Owner concludes that there is strong evidence that the Court would not stay the litigation in the current situation, and Factor 1 favors denial. *Id.* at 6.

It does not appear that any motion for stay has been filed in the Related Litigation. Under these circumstances, we will not speculate as to whether a stay may be granted if this proceeding is instituted. Factor 1 is neutral.

2. Factor 2: Proximity to Trial Date

Trial is set to begin in the Related Litigation on February 9, 2026. Pet. 13; Prelim. Resp. 6; Ex. 1009, 1. The projected deadline for the Final Written Decision in this proceeding is February 2026.

Petitioner argues that a trial in the Related Litigation would likely occur about the same time as the Final Written Decision in this proceeding. Pet. 13. Petitioner also argues that it filed the Petition three weeks after receiving Patent Owner's list of asserted claims and over eight months before the §315(b) deadline. *Id.* Petitioner asserts that thus Factor 2 is neutral or weighs against denial. *Id.*

Patent Owner argues that, based on the average time to trial statistics, the expected trial date, is December 14, 2025. Prelim. Resp. 6. Patent Owner asserts, however, using either the scheduled trial date or the expected trial date based on statistics, the Related Litigation is scheduled to end slightly before or around the same time that the Final Written Decision would issue. *Id.* Patent Owner asserts that thus Factor 2 favors denial.

We determine that Factor 2 is neutral. First, although we are encouraged to examine expected trial dates based on statistics, here the district court has already indicated that the trial will occur after December 14, 2025—the expected trial date based on statistics. Thus, for this analysis, we

will use the district court's scheduled trial date, which is essentially contemporaneous with the due date for the Final Written Decision. Thus, Factor 2 is neutral.

3. Factor 3: Investment in Parallel Proceeding

“This investment factor is related to the trial date factor, in that more work completed by the parties and court in the parallel proceeding tends to support the arguments that the parallel proceeding is more advanced, a stay may be less likely, and instituting would lead to duplicative costs.” *Fintiv*, Paper 11 at 10. If, at the time of the institution decision, a district court has issued substantive orders related to the challenged patent, such as a claim construction order, this circumstance weighs in favor of denial. *See id.* at 9–10. On the other hand, if the district court has not issued such orders, this circumstance weighs against discretionary denial. *Id.* at 10. Moreover, in evaluating this factor, “[i]f the evidence shows that the petitioner filed the petition expeditiously, such as promptly after becoming aware of the claims being asserted, this fact has weighed against exercising the authority to deny institution under *NHK*.” *Id.* at 11.

Neither party directs our attention to any substantive orders entered in the district court. Pet. 13; Prelim. Resp. 7. Factor 3 favors not exercising our delegated discretion to deny institution.

4. Factor 4: Overlap with Parallel Proceeding

Petitioner concedes that all challenged claims are asserted in the Related Litigation. Pet. 14. Petitioner, however, does not offer any stipulation to minimize any overlap between this proceeding and the Related Litigation. *Id.* Petitioner nevertheless argues that there are claims in other patents that will be challenged in other IPRs that are not asserted in the

Related Litigation. *Id.* Petitioner asserts that as a result Factor 4 weighs against denial. *Id.*

Patent Owner argues that the lack of a stipulation to overlapping grounds by Petitioner means that Factor 4 favors denial. Prelim. Resp. 7–9. We agree with Patent Owner. There is a complete overlap between the challenged claims and the claims asserted in the Related Litigation, and Petitioner has not made any stipulation to avoid overlap between the proceedings. Factor 4 favors denial.

5. Factor 5: Whether Petitioner and Defendant are the Same Party

There is no dispute that Petitioner and the defendant in the parallel proceeding are the same party. Pet. 18; Prelim. Resp. 10–11. This factor weighs marginally in favor of exercising our delegated discretion to deny institution.

6. Weighing Factors 1–5

As mentioned, Factors 1 and 2 are neutral. In weighing Factor 4, however, we nevertheless consider the scheduled trial date in the Related Litigation. Because of that scheduled date, we weigh the overlap in the asserted claims and the potential overlap in the grounds less than we would have had the scheduled or expected trial date been significantly before the due date for our Final Written Decision. With that weighing, we determine that Factor 3 outweighs the combination of Factors 4 and 5 (the latter of which has only marginally favors denial). Thus, Factors 1–5 as a whole favor not exercising our delegated discretion to deny institution.

Accordingly, we do not need to consider Factor 6. *CommScope Techs*, Paper 23, 6

7. *Summary*

In sum, we decline to exercise our delegated discretion to deny institution.

V. CONCLUSION

We determine that Petitioner has demonstrated a reasonable likelihood of proving the unpatentability of at least one challenged claim of the '982 patent. Further, we decline to exercise our delegated discretion to deny institution under 35 U.S.C. § 314. We clarify, however, that our analysis is based only on the record as it stands now and that we have not made a final determination regarding the patentability of any challenged claim. Further, no party should rely on any preliminary finding or determination in this Decision nor assume that the evidence cited in this Decision for any preliminary finding or determination will result in a similar finding or determination in the Final Written Decision after a complete record is developed.

VI. ORDER

It is

ORDERED that, pursuant to 35 U.S.C. § 314(a) an *inter partes* review of the challenged claims in the '982 patent is hereby instituted on the asserted grounds set forth in the Petition; and

FURTHER ORDERED, that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is given of the institution of a trial, which commences on the entry date of this Decision.

IPR2024-01287
Patent 9,287,982 B2

For PETITIONER:

Raymond Ricordati
MARSHALL, GERSTEIN & BORUN LLP
rricordati@marshallip.com

For PATENT OWNER:

Michael Heim
Blaine Larson
HEIM PAYNE & CHORUSH, LLP
mheim@hpcllp.com
blarson@hpcllp.com