UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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PALO ALTO NETWORKS, INC. and SYMANTEC CORP.,
Petitioner,

v.

FINJAN, INC.,
Patent Owner.

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Case IPR2016-00151[1]
Patent 8,141,154 B2

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Before, THOMAS L. GIANNETTI, MIRIAM L. QUINN, and
PATRICK M. BOUCHER, *Administrative Patent Judges.*

QUINN, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

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[1] This case is joined with IPR2016-01071. Paper 21 ("Decision on Institution of *Inter Partes* Review and Grant of Motion for Joinder," filed by Symantec Corp.).

Palo Alto Networks, Inc. and Symantec Corp. (collectively "Petitioner") each have filed petitions to institute *inter partes* review of claims 1–12 of U.S. Patent No. 8,141,154 B2 ("the '154 patent") pursuant to 35 U.S.C. § 311–319. Paper 2 ("Pet."); IPR2016-01071, Paper 1. In response to the petition filed by Palo Alto Networks, Inc. (Paper 2), Finjan, Inc. ("Patent Owner") filed a Preliminary Response. Paper 8 ("Prelim. Resp."). Upon consideration of the Petition and the Preliminary Response, we instituted trial as to challenged claims, 1–8, 10 and 11. Paper 10 ("Dec.").

Subsequently, we reviewed and granted Symantec Corp.'s petition, which sought review of the same claims of the '154 patent. IPR2016-01071, Paper 1. With its petition, Symantec Corp. filed a motion requesting to join IPR2016-01071 with this proceeding, and we granted the motion. Paper 21. Upon granting the motion, we terminated Case IPR2016-01071, and ordered consolidation of all Petitioner filings in this proceeding. *Id.* at 4–5.

During trial, Patent Owner filed a Patent Owner Response (Paper 19, "PO Resp."); and Petitioner filed a Reply (Paper 32, "Reply"). Patent Owner also filed a Motion for Observations of the December 20, 2016, cross-examination of Petitioner's declarant, Dr. Aviel Rubin. Paper 40. Petitioner responded to Patent Owner's Motion for Observations. Paper 43. Both parties also filed Motions to Exclude. Paper 38 ("Pet. Mot. to Exclude"); Paper 39 ("PO Mot. to Exclude"). Both parties filed Oppositions and Replies concerning the Motions to Exclude. Papers 42, 44, 45, 46. An oral hearing was held on January 24, 2017.[2]

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[2] A transcript of the oral hearing is entered in the record as Paper 49 ("Tr.").

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). For the reasons discussed herein, and in view of the record in this trial, we determine that Petitioner has not shown by a preponderance of the evidence that claims 1–8, 10, and 11 of the '154 patent are unpatentable.

I. BACKGROUND

A. RELATED MATTERS

Petitioner identifies the '154 patent as the subject of various district court cases filed in the U.S. District Court for the Northern District of California and District of Delaware. Pet. 42. Petitioner also states that petitions for *inter partes* review have been filed regarding other related patents. *Id.* The '154 patent is also the subject of another *inter partes* review: IPR2015-01979 (and IPR2016-00919, joined therewith). In IPR2015-01979, we issue a Final Written Decision, under 35 U.S.C. § 318 (a), concurrently with the instant Final Written Decision.

B. FINAL WRITTEN DECISION IN IPR2015-01979

The parties have briefed whether estoppel under 35 U.S.C. § 315 (e)(1) affects our ability to render a Final Written Decision in this proceeding. *See* Papers 30, 31. As stated above, IPR2015-01979 is also directed to the '154 patent, and considers the same claims challenged in the instant proceeding. Because we issue final written decisions in both proceedings concurrently, we need not decide what effect, if any, the estoppel provisions of § 315 (e)(1) have on our ability to render this decision.

C. Instituted Grounds

We instituted *inter partes* review of claims 1–8, 10, and 11 ("the challenged claims") based on Petitioner's challenge of those claims as unpatentable under 35 U.S.C. § 103(a) over Ross.[3] Petitioner supports its contentions of unpatentability with a declaration from Dr. Aviel Rubin. Ex. 1002 ("Rubin Declaration"). Patent Owner proffers a declaration from Dr. Nenad Medvidovic as evidence in support for its contentions. Ex. 2035 ("Medvidovic Declaration"). The cross-examinations of Dr. Rubin and Dr. Medvidovic are in the record as Exhibits 2012 and 1011, respectively.

D. The '154 Patent (Ex. 1001)

The '154 patent relates to computer security and, more particularly, to systems and methods for protecting computers against malicious code such as computer viruses. Ex. 1001, 1:7–9, 8:38–40. The '154 patent identifies the components of one embodiment of the system as follows: a gateway computer, a client computer, and a security computer. *Id.* at 8:45–47. The gateway computer receives content from a network, such as the Internet, over a communication channel. *Id.* at 8:47–48. "Such content may be in the form of HTML pages, XML documents, Java applets and other such web content that is generally rendered by a web browser." *Id.* at 8:48–51. A content modifier modifies original content received by the gateway computer and produces modified content that includes a layer of protection to combat dynamically generated malicious code. *Id.* at 9:13–16.

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[3] Patent Application Pub. No. US 2007/0113282 A1 (Exhibit 1003) ("Ross").

E. ILLUSTRATIVE CLAIM

Challenged claims 1, 4, 6, and 10 are independent, and illustrative claim 1 is reproduced below.

> 1. A system for protecting a computer from dynamically generated malicious content, comprising:
>
> a content processor (i) for processing content received over a network, the content including a call to a first function, and the call including an input, and (ii) for invoking a second function with the input, only if a security computer indicates that such invocation is safe;
>
> a transmitter for transmitting the input to the security computer for inspection, when the first function is invoked; and
>
> a receiver for receiving an indicator from the security computer whether it is safe to invoke the second function with the input.

II. ANALYSIS

A. CLAIM INTERPRETATION

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142–46 (2016). Consistent with that standard, claim terms also are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). There are, however, two exceptions to that rule: "1) when a patentee sets out a definition and acts as his own lexicographer," and "2) when the patentee disavows the full scope of a claim

term either in the specification or during prosecution." *See Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

If an inventor acts as his or her own lexicographer, the definition must be set forth in the specification with reasonable clarity, deliberateness, and precision. *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). Although it is improper to read a limitation from the specification into the claims, *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993), claims still must be read in view of the specification of which they are a part. *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1347 (Fed. Cir. 2004).

In our Decision on Institution, we did not construe expressly any claim terms. Dec. 4–5. In its papers, Patent Owner argues distinctions from the prior art that hinge on whether the term "call to a first function" is different from "invoking" the first function. PO Resp. 22–23 ("Ross teaches a technique in which received content does not include a call to a first function. In contrast, Ross' technique involves *invoking* a hook function . . . without the content including a call to the hook function." (emphasis in original)).

"call to a first function"

The term "call to a first function" is recited in all challenged claims. The arguments presented regarding this limitation turn on the scope of the word "call." Specifically, Patent Owner argues that Ross may invoke the "first function," but Petitioner has not identified that Ross's content includes a "call to a first function," as required by the claims. *Id.* at 20–21. At issue is to what extent the recited "call" refers to execution of the function. Dr. Medvidovic, Patent Owner's expert, proffers opinions on the issue by

relying on a definition of "function call" derived from the Microsoft Press Computer Dictionary. Ex. 2035 ¶ 57 (citing Ex. 2013). That Dictionary provides that a "function call" is "[a] program's request for the services of a particular function." *Id.*; Ex. 2013. It also explains that "[a] function call is coded as the name of the function along with any parameters needed for the function to perform its task." *Id.*

The Specification of the '154 patent does not define the term "call to a first function." But the Specification uses the phrase "function call" in stating that "before the client computer invokes a function call that may potentially dynamically generate malicious code, the client computer passes the input to the function to the security computer for inspection." Ex. 1001, 4:38–42. The Specification also states that "the present invention operates by replacing original function calls with substitute function calls within the content, at a gateway computer, prior to the content being received at the client computer." *Id.* at 4:57–60. From such examples, we understand the Specification to use the phrase "function call" in the same sense that the claims recite in the phrase "call to a [] function." That is, a "call" is part of the recited "content," as a statement or instruction containing the function that, when executed, causes the function to provide a service. Thus, we find the dictionary definition of the term "function call" applicable here and indicative of the meaning of the term to a person of ordinary skill in the art.

Furthermore, the dictionary definition is consistent with the embodiments described in the Specification. For example, one embodiment of the '154 patent provides for modifying an original function call with "corresponding function calls Substitute_function(input,*)." *Id.* at 9:21–24. That is, the specification describes that the services of the function

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Substitute_function are being requested by the modified content. Furthermore, the format of the function in this particular embodiment identifies the name of the function and the parameters "input" and "*". *See also id.* at 9:26–28 (explaining that the "input intended for the original function is also passed to the substitute function, along with possible additional input denoted by '*'"). From this description we determine that the "call" is a statement or instruction in the content, the execution of which causes the function to provide a service.

We note that this construction of "call to a first function" need not define the format of the instruction or statement, or further detail regarding its parameters. We reach this determination because the claim language itself requires that either the call or the function include an input. For example, claim 1 recites the "call including an input," while claim 6 recites "the first function including an input variable."

Petitioner argues that a call to a function and invoking a function are equivalent. Tr. 26:2–12. Dr. Rubin further testifies that a call is "when a function is invoked." Ex. 2038, 74:9–11; *see also* 74:18–75:4 (testifying also that invoking the function name, transferring execution to the code in that function is a call). We do not agree with Petitioner in this regard. The claims recite "including a call" and "invoking" distinctly from each other. For example, claims 1 and 4 recite "the content including a call to a first function" and "when the first function is invoked." These limitations have different connotations. In the first instance, the "call" (noun) is included in the content, and therefore points to a programmatic statement or instruction in the content. The second instance, "first function is invoked," however, refers to the effect of the call to the function being executed, i.e., invoked.

The same analysis applies regarding the language of claims 6 and 10, which do not recite the word "invoke." Claims 6 and 10, for example, recite "the content including a call to a first function" and "when the first function is called." Again, the "call" (noun) refers to a programmatic statement included in the content. However, "calling" is the effect of the call to the function being executed. Accordingly, based on the foregoing and under the broadest reasonable interpretation, we determine that a "call to a first function" means a statement or instruction in a program requesting the services of a particular (i.e., first) function.

B. PRINCIPLES OF LAW

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

C. THE LEVEL OF SKILL IN THE ART

In determining the level of ordinary skill in the art at the time of the invention, we note that various factors may be considered, including "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology;

and educational level of active workers in the field." *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citing *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)).

Petitioner asserts, through its expert Dr. Aviel Rubin, that the "relevant technology field for the '154 patent is security programs, including content scanners for program code." Ex. 1002 ¶ 25. Further, Dr. Rubin opines that a person of ordinary skill in the art would "hold a bachelor's degree or the equivalent in computer science (or related academic fields) and three to four years of additional experience in the field of computer security, or equivalent work experience." *Id.*

Patent Owner, through its expert Dr. Nenad Medvidovic, offers a level of ordinary skill that is different from Petitioner's. Ex. 2035 ¶ 35. In Particular, Dr. Medvidovic opines that a person of ordinary skill in the art would have a "bachelor's degree in computer science or related field, and either (1) two or more years of industry experience and/or (2) an advanced degree in computer science or related field." *Id.* In comparison, it appears that the minimum experience under Patent Owner's proffered level of skill is one year less than Petitioner's. Also, Patent Owner proffers an alternative to work experience, namely an advanced degree. There is no specific articulation regarding how the difference of one year's experience or the proposed alternative of an advanced degree in lieu of experience tangibly affects our obviousness inquiry. Further, there is no evidence in this record that the differences noted above impact in any meaningful way the level of expertise of a person of ordinary skill in the art. Indeed, we note that Dr. Medvidovic's opinions would not change if he had considered instead the level or ordinary skill in the art proffered by Dr. Rubin. *Id.* ¶ 39.

Accordingly, we determine that in this case no express articulation of the level of ordinary skill in the art is necessary and that the level of ordinary skill in the art is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

D. OBVIOUSNESS GROUND BASED ON ROSS

The Petition relies on Ross as teaching or suggesting all the limitations of claims 1–8, 10, and 11. Pet. 14–37. Having reviewed the arguments and evidence provided by Petitioner and the arguments and evidence presented by Patent Owner, we determine that Petitioner has failed to show by a preponderance of the evidence that Ross teaches or suggests all the limitations of the challenged claims, and more particularly, "the content including a call to a first function."

1. Overview of Ross (Exhibit 1003)

Ross describes one embodiment where a device receives and processes "data content having at least one original function call [and it] includes a hook script generator and a script processing engine." Ex. 1003 ¶ 10. One such device is depicted in Figure 2 of Ross, reproduced below.
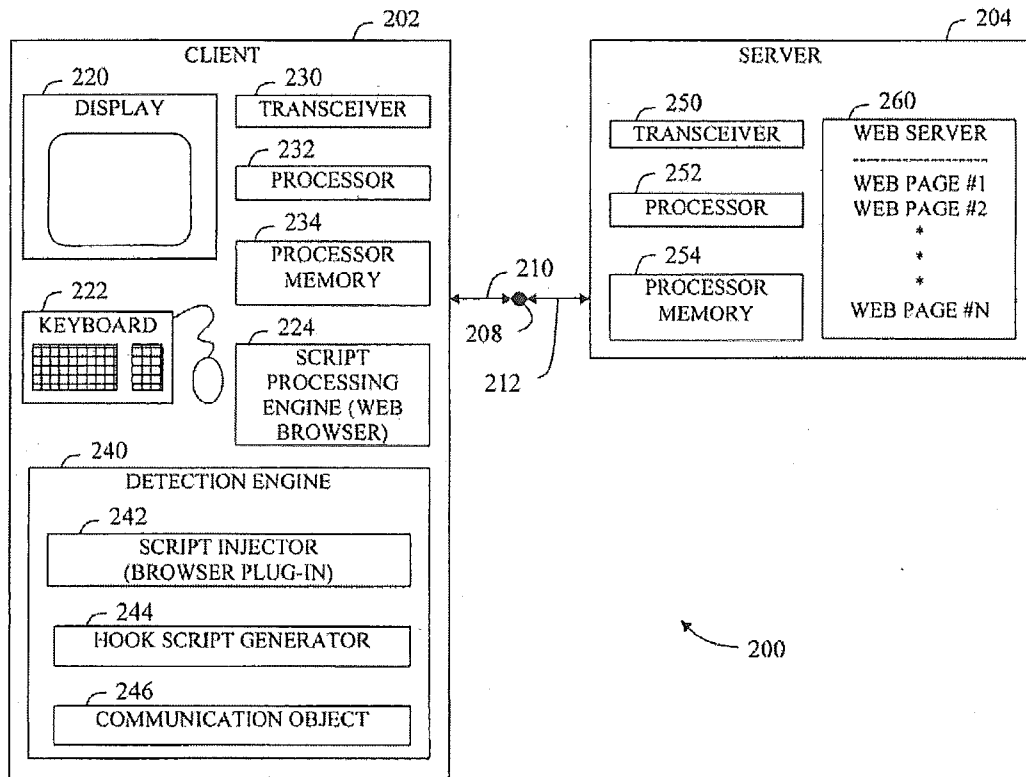
FIG 2

Figure 2 shows a client network device (client 202) and a server network device (server 204) communicating with each other over communication network 208 to exchange information, including web content. *Id.* ¶¶ 16, 23. Figure 2 depicts web browser 224 and detection engine 240 at the client, but in other embodiments, detection engine 240 may be physically located away from client 202. *Id.* ¶ 26. Detection engine 240 includes script injector 242 to intercept incoming data content and introduce the incoming data to script-processing engine 224. *Id.* "Hook script generator 244 creates new functions, including constructor functions, which replace the standard JavaScript functions." *Id.*

2. Discussion of Independent Claims

Independent claim 1 is directed to a system, while claim 4 is directed to stored program code including functions performed by a computer device, where those functions track the functions recited in claim 1. Independent claim 6 is also directed to a system, albeit with some limitations different from the system of claim 1. And independent claim 10 is directed to stored program code including functions performed by a computer device, where those functions track the functions recited in claim 6. Notwithstanding their differences, all the independent claims recite "the content including a call to a first function." We find that Ross does not disclose this limitation.

Content Includes a Call to a First Function

Petitioner asserts that the recited "content" is met by a combination of Ross's web content (HTTP data) and hook functions in the hook script. Pet. 16 ("script processing engine processes content from both the web (HTTP data content) and from the hook script generator (hook functions)"). The Petition points out that Ross's "hook scripts and their associated inputs teach or suggest 'the content including a call to a first function, and the call including an input,' as recited in claim 1." *Id.* Specifically, the Petition states that each hook script has "at least one hook function[,] where each hook function is configured to supersede a corresponding original function." *Id.* at 17 (citing Ex. 1003 ¶ 38). With regard to the "call" limitation, Petitioner asserts that a person of ordinary skill in the art would have understood that the hook scripts "include a call to a first function call (i.e., hook functions within a hook script)." *Id.* at 18 (citing Ex. 1002 ¶ 109). Based on these assertions, we understand Petitioner's contention to be that

Ross's description of hook functions in the hook script teaches or suggests the "call to a first function."

Patent Owner challenges these assertions by arguing that merely pointing to hook functions within a hook script is insufficient. PO Resp. 20–22. According to Patent Owner, Ross's hook script includes a function, i.e., the hook function, but not the "call" to that function. *Id.* (citing Ex. 2035 ¶¶56–59). Ross, according to Patent Owner, teaches a technique different from the claims. *Id.* at 22–23. Ross first calls the original function, which Petitioner identifies as the recited "second function," in order to invoke the hook function ("first function"). *Id.* at 23 (citing Ex. 1003 ¶¶ 12–13). In contrast, the claims require that the content include a call to a first function, in order to invoke the first function first. *See, e.g.,* claim 1 ("transmitting the input to the security computer . . . when the first function is invoked" and "invoking a second function with the input only if a security computer indicates that such invocation is safe"); claim 6 ("transmitting the input variable to a security computer . . . when the first function is called" "modifying the input variable if the security computer determines that [it is not] safe" and "calling a second function with a modified input variable").

In support of Patent Owner's argument, Dr. Medvidovic explains that Ross describes the combined hook script and the original script as using an "assignment," not a "call" for invoking the first function. PO Resp. 23–24 (citing Ex. 2035 ¶61). We credit this testimony. Ross illustrates in Figure 4, reproduced below, a combined script, which shows more detail regarding how Ross formulates the hook script and the included hook function. *See* Ex. 1003, Fig. 4.

```
// Generated Hook Script (Highly simplified example)
<SCRIPT language="JavaScript">
realAXO = ActiveXObject;
function myXMLObject(realconstructor) {
        // Generated code (create Microsoft.XMLHTTP wrapper object and return it)
}
function HookedActiveXObject(objname) {
        // Security checks go here
        if (objname == "Microsoft.XMLHTTP") {
                return new myXMLObject(realAXO);
        } else {
                return realAXO(objname); // if no more security checks are needed
        }
}
ActiveXObject = HookedActiveXObject;
</SCRIPT>
// Original Script
<SCRIPT language="JavaScript">
var Req;
Req = new ActiveXObject("Microsoft.XMLHTTP");
// Open the request object with MKCOL and specify that it will be sent asynchronously.
Req.Open("MKCOL", folderURL, false);
</SCRIPT>
```

404

302

402

FIG 4

Figure 4 illustrates combined script 402 including hook script 404 and original script 302. *Id.* Dr. Medvidovic identifies the hook function in hook script 404 as "function HookedActiveXObject(objname)." Ex. 2035 ¶ 61. The combined script does not include a call to the function "HookedActiveXObject." Instead, as Dr. Medvidovic explains, Ross's hook script includes a call to the *original function*, not the hook function, as shown below in Patent Owner's annotated Figure 4.

FIG 4
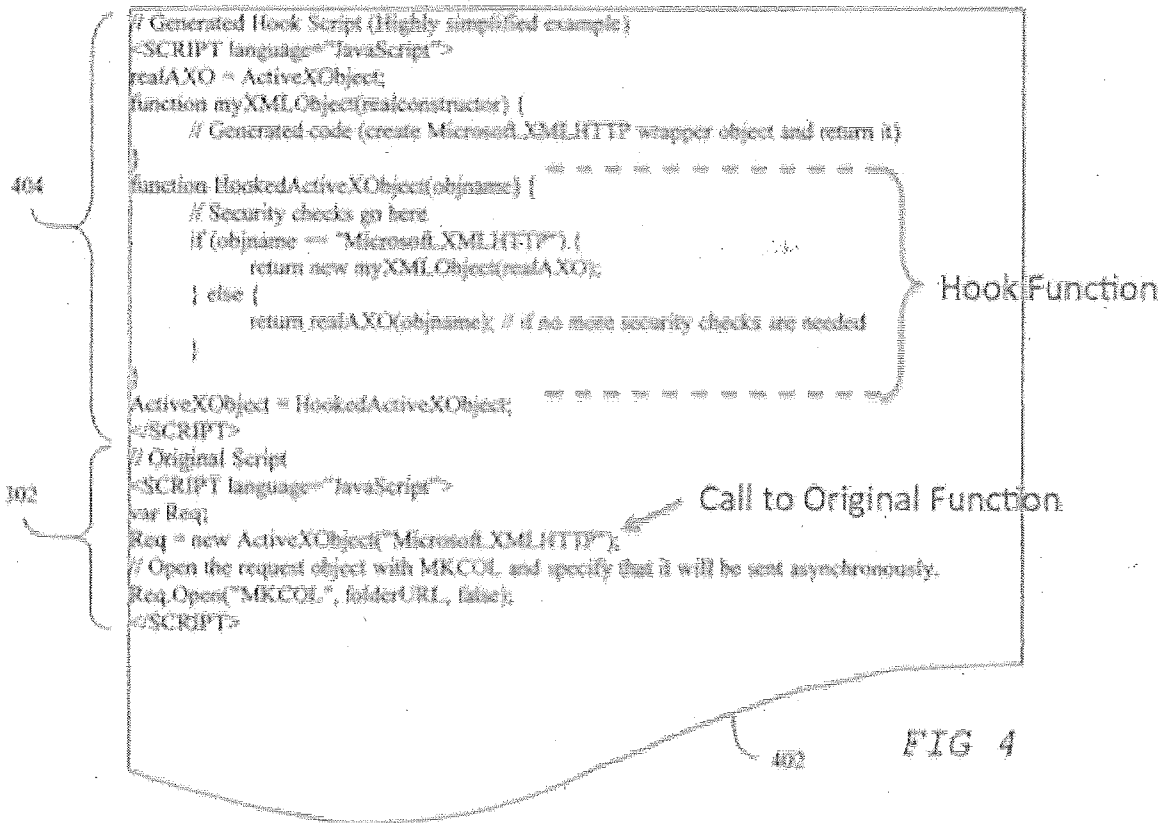
The annotated Figure 4 of Ross, above, annotates Ross's script by pointing out: (1) in brackets, that a group of instructions comprise the function "Hooked ActiveXObject(objname);" and (2) that the body of the function is the "Hook Function." *See* PO Resp. 23. The annotations also show that the instruction "Req=new ActiveXObject("Microsoft.XMLHTTP")" is the "Call to Original Function." *Id.* Dr. Medvidovic explains that the call to "new ActiveXObject("Microsoft.XMLHTTP") indirectly invokes "function HookedActiveXObject," using Ross's assignment technique. *See* Ex. 2035 ¶ 61. Ross's description of the hook functions confirms this technique. For example, Ross states that "[t]he hook function corresponding to the data content original function is executed *when the original function is called.*"

Ex. 1003, Abstract; *see also* ¶ 13 ("executing a hook function when a corresponding original function is called in the data content"). Ross further states that the "hook function is configured to supersede a corresponding original function." *Id.* ¶¶ 10–12.

Although we have explained that the first invocation in Ross is not of the first function, the issue is not simply whether Ross executes or processes the first function first, before the second function. The issue is whether the content in Ross includes a "call to a first function," as claimed. We find that Ross does not.

Patent Owner's explanation of Ross is consistent with Ross's description of how the hook script is generated and processed. Ross's hook script generator creates new functions to replace the original functions, such as the JavaScript function embedded in a web page. *Id.* ¶ 26. When the web page is received, the script filter injects "the JavaScript that hooks the critical functions and methods before any other HTML in a loading page." *Id.* ¶ 29. To implement these "hooks," Ross states that it replaces the original function with a new replacement function or that it substitutes an original function with a filtered function by instantiating a "hooked" process. *Id.* ¶¶ 33, 34. These statements of "replacement" and "substitution," however, refer to how the hook functions are implemented when the script executes. Neither of these statements explains whether a "call" to a hook function is included in the script. That is, the replacement or substitution may result in invoking the hook function, without the content actually including a call. And this *indirect* invocation—not using a call—of the hooked function is what Ross tends to show. For instance, Ross describes the method of processing the content as follows: (1) generating a hook

script with a hook function; (2) loading the hook script; (3) loading the data content having the original function; and (4) executing a hook function *when a corresponding original function is called in the data content. Id.* ¶ 38.

Thus, the hook function is loaded before anything else is loaded in order to define the hook function and to effectuate the replacement. The replacement, or the method of superseding, is accomplished by the assignment that results from the use of the instruction ActiveXObject=HookedActiveXObject. As Dr. Medvidovic explains, by way of assignment of ActiveXObject (original function) to HookedActiveXObject (substitute or first function), a call to the original function indirectly invokes the substitute or first function. *See* Ex. 1011, 10:20–13:21. This understanding is further confirmed by Ross's description of the hook functions, as stated above, and when it refers to them as "new objects that will be used as replacements *when the appropriate constructor is invoked.*" Ex. 1003 ¶ 35 (emphasis added).

In sum, Ross's content does not include a "call to a first function" because the hook function is not directly called. There is no instruction or statement in the hook script that requests the service of the hook function. *See also* Ex. 2043 at 88:11–16 (Dr. Rubin, Petitioner's expert, testifying that "in the pseudocode in figure 4 [of Ross] there's no explicit call to a hooked function."). The hook function is invoked only when *the call to the original function* in the data content, which has been assigned via the hook script to a hook function, is executed. *See id.* ("These hooks are installed before any other script on the web page loads, ensuring that any script provided as a part of the data content 602, such as a web page, will call the new hooked functions.").

Petitioner unpersuasively argues in the Reply that the combined script shown in Figure 4 would "readily teach or suggest to a [person of ordinary skill in the art] that the act of having a hook function supersede a call to an original function can be achieved via a call to a hook function within the hook script." Reply 10–11 (citing the reply Declaration of Dr. Aviel Rubin, Ex. 1005 ¶ 3). We are not persuaded by this testimony. The testimony relies on an interpretation of Ross that we find erroneous. For instance, Dr. Rubin opines that paragraph 31 of Ross supports the contention that one way to ensure the hook script function is processed first would be to include a call to the hook function within the hook script. Ex. 1005 ¶¶ 4–6. As explained above, we find that Ross's description of *processing the hook script* in paragraph 31 does not teach including a call to the hook function. Disclosing that the hook script and original script codes may be *injected* into the script processing engine by any means, Ross refers to the order of processing the *hook function*, not whether the script may include other instructions, such as a call to the hook function. As stated above, Ross teaches assigning the original function to the hooked function. In that manner, Ross invokes indirectly the hook function without any need to include a call to that hook function.

Additional Arguments in Petitioner's Reply

Expanding on the issue of whether Ross includes a call to a first function, Petitioner argues that it would have been obvious for a person of ordinary skill in the art to include in the hook script a call to the hook function to ensure that the hook function is processed first. Reply 11. Petitioner proffers additional argument that the script shown in Figure 4 of Ross suggests including a call to a first function where the code states

"Security checks go here." Reply 11–13. In particular, Petitioner now argues that it would have been obvious to implement the security checks by calling a separate hook function within the hook script. *Id.* at 13. That is, instead of calling the hook function "HookedActiveXObject," Petitioner contends that it would have been obvious to include *another* hook function within the function "HookedActiveXObject." *Id.* In support, of this contention, Petitioner asserts that there is no dispute on this issue, citing to a second declaration of Dr. Rubin filed with the Reply and to testimony of Dr. Medvidovic alleged to be in agreement. *Id.* Dr. Rubin also provides additional declaration testimony purporting to show how to edit the pseudocode shown in Figure 4 of Ross to include a call to the hooked function. *See* Ex. 1005 ¶¶ 7–10.

Patent Owner argued at the hearing that Petitioner's argument and the supporting testimony from Dr. Rubin is outside the scope of a proper reply. Tr. 66:19–13. Therefore, the issue before us is whether the additional arguments Petitioner presents in the Reply exceed the appropriate scope of a reply. *See* 37 C.F.R. § 42.23 (b) ("A reply may only respond to arguments raised in the corresponding opposition or patent owner response."). In particular, we focus on whether it is appropriate to consider the argument that it would have been obvious to include a call to a first function within either the "Security checks go here" portion or the hooked script/hook function.

To determine whether we should consider the argument, our Trial Practice Guide points out that,

> [w]hile replies can help crystalize issues for decision, a
> reply that raises a new issue or belatedly presents
> evidence will not be considered and may be returned.

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> The Board will not attempt to sort proper from improper
> portions of the reply. Examples of indications that a
> new issue has been raised in a reply include new
> evidence necessary to make out a prima facie case for
> the patentability or unpatentability of an original or
> proposed substitute claim, and new evidence that could
> have been presented in a prior filing.

Trial Practice Guide, 77 Fed. Reg. at 48767; *see also Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1080 (Fed. Cir., 2015) (discussing that a patent owner "is undoubtedly entitled to notice of and fair opportunity to meet the grounds of rejection."). With these guidelines in mind, we are persuaded that the above-identified argument in the Reply should not be considered in deciding this matter.

As stated above, the Petition relies on Ross's "hook functions within a hook script" as teaching or suggesting the "call to a first function." Pet. 17–18. Although the Petition relies on the understanding of a person of ordinary skill in the art when explaining Ross's handling of the hook function, Petitioner does not assert in any meaningful way that Ross's use of hook functions in the hook script would be *modified* to include calls to *additional* hook functions that Ross does not describe. Nor does Petitioner explain in the Petition that Ross would be modified to replace the assignment instruction with a call to the hook function. The arguments in the Reply are not explanations of how Ross's hook functions, as taught by Ross, may be understood to include the recited "call to a first function," as asserted in the Petition. Rather, the argument that a "call" may be added to either the security check or the hook script is an alteration of Ross, necessitated because Patent Owner correctly argues that Ross fails to teach or suggest the limitation. The contention that Ross's embodiments would be

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modified, altered, or imbued with details not present in Ross is a *new* contention, necessary to make a case for the unpatentability of the claims, and should have been presented in the Petition. To consider the argument would unfairly prejudice Patent Owner who, after having argued there is a significant gap in Petitioner's case, would be left without an opportunity to respond substantively to the new arguments and support its rebuttal with additional evidence, if necessary. Accordingly, we do not consider the improper arguments identified above.

3. Conclusion

Having considered the arguments and evidence presented by both parties, we determine that Petitioner has not shown by a preponderance of the evidence that the challenged claims would have been obvious over Ross. Because we find that Ross does not teach or suggest "content including a call to a first function," we need not consider whether Patent Owner succeeded in its attempt to prove the prior invention of the '154 patent or whether a conclusion of nonobviousness is warranted because of evidence of secondary considerations of nonobviousness.

E. MOTIONS TO EXCLUDE

Both parties request that certain exhibits be excluded. First, Petitioner moves to exclude pages 3 through 20 of Exhibit 2007 on the basis of failure to authenticate the document. Paper 38, 2–6 ("Pet. Motion to Exclude"). Petitioner's Motion to Exclude is denied as moot, because the evidence objected to is not relied upon in reaching our determination that Petitioner has not met its burden of showing that claims 1–8, 10, and 11 are unpatentable.

Second, Patent Owner moves to exclude various exhibits in the record:

a) Exhibits 1005 and 1012 as evidence and arguments outside the proper scope of a reply. Paper 39, 1–3 ("PO Motion to Exclude").

b) Exhibits 1002 and 1005, Declarations of Dr. Aviel Rubin, on the basis that opinions are conclusory and unreliable. *Id.* at 3–7.

c) Portions of the cross-examination testimony of Patent Owner's witnesses, Mr. Ben-Itzhak and Dr. Marc Berger, as irrelevant and prejudicial. *Id.* at 7–9.

Patent Owner's motion is denied. First, we have stated repeatedly that a motion to exclude is not a vehicle for arguing that Petitioner's arguments and supporting evidence are outside the proper scope of a reply.[4] A motion to exclude evidence filed for the purpose of striking or excluding an opponent's brief and/or evidence that a party believes goes beyond what is permitted under 37 CFR § 42.23 is improper. An allegation that evidence does not comply with 37 CFR § 42.23 is not a sufficient reason under the Federal Rules of Evidence for making an objection and requesting exclusion of such evidence. Accordingly, these arguments are not considered as part of the Motion to Exclude, and the request to exclude Exhibits 1005 and 1012, as being outside the proper scope of a reply, is denied.

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[4] *See Valeo v. Magna Elecs., Inc.,* Case IPR2014-00227, Paper 44 (PTAB Jan 14, 2015); *Carl Zeiss SMT GmbH v. Nikon Corp.,* Case IPR2013-00362, Paper 23 (PTAB June 5, 2014); *Ultratec, Inc. v. Sorenson Commc'ns, Inc.,* Case IPR2013-00288, Paper 38 at 2 (PTAB May 23, 2014); *Primera Tech., Inc. v. Automatic Mfg. Sys., Inc.,* Case IPR2013-00196, Paper 33 (PTAB Feb. 10, 2014); *ZTE Corp. v. Contentguard Holdings Inc.,* Case IPR2013-00133, Paper 42 (PTAB Jan. 21, 2014).

Next are exhibits 1002 and 1005, which constitute the declarations of Dr. Aviel Rubin submitted in support of the Petition and the Reply. We are not persuaded by Patent Owner's argument that they should be excluded from the record. An argument regarding whether the expert's opinions have been shown to be reliable or supported by underlying facts go to the weight of the evidence, not its admissibility. *See Liquid Dynamics Corp. v. Vaughan Co.*, 449 F.3d 1209, 1221 (Fed. Cir. 2006) ("Vaughan's challenge goes to the weight of the evidence rather than the admissibility of Lueptow's testimony and analysis.") (citing *Quiet Tech. DC-8, Inc. v. Hurel-Dubois UK Ltd.*, 326 F.3d 1333, 1344-45 (11th Cir. 2003)); *Wilmington v. J.I. Case Co.*, 793 F.2d 909, 920 (8th Cir.1986) ("Virtually all the inadequacies in the expert's testimony urged here by [defendant] were brought out forcefully at trial. . . . These matters go to the weight of the expert's testimony rather than to its admissibility."). To the extent the testimony has been shown to be inadequately supported, contradictory, or irrelevant, we have taken notice and weighed it accordingly. Therefore, Patent Owner's request to exclude exhibits 1002 and 1005 is denied.

Finally, Patent Owner requests that we exclude portions of the cross-examination testimony of two of its witnesses, the named inventor Mr. Ben-Itzhak, and prosecuting attorney, Dr. Marc Berger. *Id.* at 7–9. Patent Owner argues that Petitioner uses the objected-to testimony to challenge the assertion of diligence in filing the application resulting in the '154 patent. *Id.* The argument, again, goes to the weight of the evidence, not on whether the testimony is relevant. For instance, the question of whether the witness recollects details specific enough to support Patent Owner's contention goes to whether, under the rule of reason, that testimony is credible. *See*

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Price v. Symsek, 988 F.2d 1187, 1195 (Fed. Cir. 1993) (explaining that under a rule of reason analysis, "[a]n evaluation of *all* pertinent evidence must be made so that a sound determination of the credibility of the inventor's story may be reached"). Therefore, Patent Owner's motion is denied.

III.   CONCLUSION

For the foregoing reasons, we conclude that Petitioner *has not shown* by a preponderance of the evidence that claims 1–8, 10, and 11 of the '154 patent are unpatentable. Petitioner's Motion to Exclude is denied as moot. Patent Owner's Motion is denied.

IV.   ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–8, 10, and 11 of the '154 patent have not been shown to be unpatentable;

FURTHER ORDERED that Petitioner's Motion to Exclude is denied as moot;

FURTHER ORDERED that Patent Owner's Motion to Exclude is denied; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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