

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SERVICENOW, INC.,
Petitioner,

v.

BMC SOFTWARE, INC.,
Patent Owner.

Case IPR2015-01601
Patent 6,816,898 B1

Before JUSTIN T. ARBES, BRIAN P. MURPHY, and
JOHN A. HUDALLA, *Administrative Patent Judges*.

ARBES, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

Petitioner ServiceNow, Inc. filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–12 of U.S. Patent No. 6,816,898 B1 (Ex. 1001, “the ’898 patent”) pursuant to 35 U.S.C. § 311(a). Patent Owner BMC Software, Inc. filed a Preliminary Response (Paper 9, “Prelim. Resp.”) pursuant to 35 U.S.C. § 313. We have jurisdiction under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). Pursuant to 35 U.S.C. § 314(a), the Director may not authorize an *inter partes* review unless the information in the petition and preliminary response “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” For the reasons that follow, we have decided not to institute an *inter partes* review.

I. BACKGROUND

A. *The ’898 Patent*

The ’898 patent describes a system for “interfacing with network management.” Ex. 1001, col. 1, ll. 6–8. According to the ’898 patent, “[t]ypical network management systems collect information regarding the operation and performance of the network and analyze the collected information to detect problems in the network,” such as the network or a particular device “approaching an overloaded condition.” *Id.* at col. 1, ll. 38–44. Prior art systems required new software to be written for each new application and only collected typical infrastructure information and network parameters (e.g., number of packets transmitted, number of packets lost), not “specific business-oriented data useful in commercial applications” (e.g., number of tickets sold on an airline’s web site). *Id.* at col. 1, l. 50–col. 2, l. 9. The disclosed system attempts to solve these problems by

collecting performance data along with meta data that defines the performance data and indicates operations to be performed on the performance data. *Id.* at col. 2, ll. 22–29, col. 4, ll. 11–36. The system then displays collected performance data according to the meta data. *Id.*

Figure 3 of the '898 patent is reproduced below.

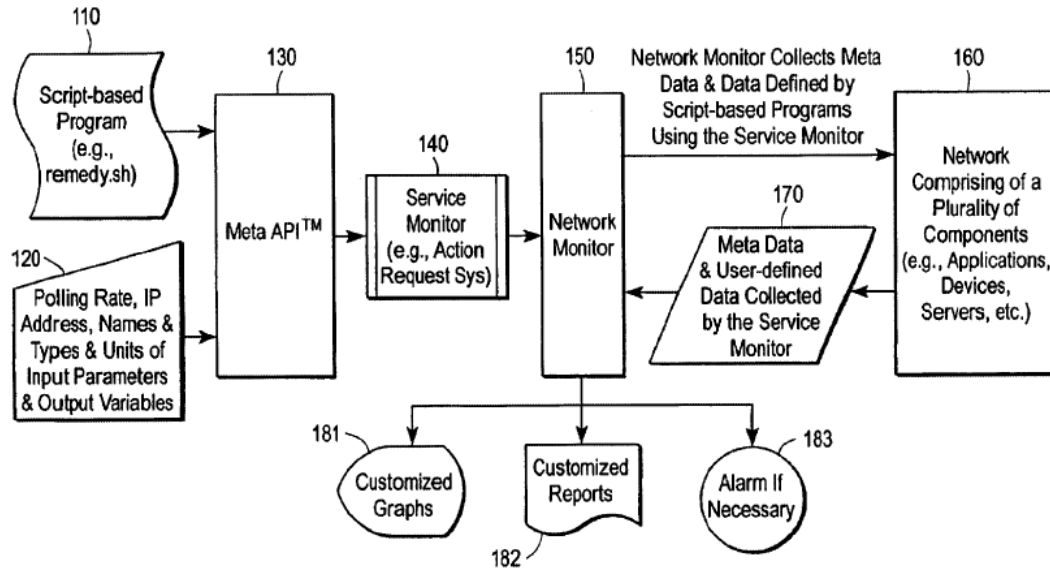


FIG. 3

As shown in Figure 3, a user provides to meta application programming interface (API) 130 (1) script-based program 110 containing instructions for monitoring some aspect of the network, and (2) information 120 about how such monitoring should take place, such as the rate at which network components should be polled for information. *Id.* at col. 7, ll. 13–27. Based on information 120, script-based program 110 is integrated into the system as service monitor 140, which is registered and activated. *Id.* at col. 8, ll. 17–19, 44–46, col. 9, ll. 31–32. Network monitor 150 then runs service monitor 140 periodically to collect meta data and user-defined data 170 from components on network 160. *Id.* at col. 7, ll. 28–30. Network monitor 150 analyzes the data according to the received meta data, and generates

customized graphs 181, customized reports 182, and alarm 183 for display to a user. *Id.* at col. 7, ll. 30–34, col. 10, l. 67–col. 11, l. 6.

B. Illustrative Claims

Claims 1 and 6 of the '898 patent recite:

1. A method comprising:

collecting performance management data having accompanying meta data, the meta data including information defining the performance management data and information indicating operations to be performed on the performance management data; and

generating output data for display using the collected performance management data according to the information indicating the operations to be performed on the performance management data.

6. A method for providing an interface between a user and a performance management system, the performance management system being connected with a network, the network including a plurality of components coupled by a plurality of connections, the performance management system collecting data of the components, the method comprising:

receiving at least one script-based program from the user, the script-based programs defining data types not provided by the performance management system;

integrating the program to the performance management system as a service monitor, the performance management system using the service monitor to periodically collect data of the defined data types from the components.

C. The Prior Art

Petitioner relies on the following prior art:

Brian W. Kernighan & Dennis M. Ritchie, *THE C PROGRAMMING LANGUAGE* (1988) (Ex. 1004, “Kernighan”);

Todd Miller, Christopher Stirlen, & Evi Nemeth, *satoool—A System Administrator’s Cockpit, An Implementation*, USENIX Association, Proceedings of the Seventh Systems Administration Conference (LISA VII), Nov. 1–5, 1993 (Ex. 1003, “Miller”); and

Tim O’Reilly, Troy Mott, & Walter Glenn, *WINDOWS 98 IN A NUTSHELL: A DESKTOP QUICK REFERENCE* (1999) (Ex. 1005, “O’Reilly”).¹

D. The Asserted Grounds

Petitioner challenges claims 1–12 of the ’898 patent on the following grounds:

Reference(s)	Basis	Claim(s) Challenged
Miller	35 U.S.C. § 103(a) ²	1–7 and 9–12
Miller, Kernighan, and O’Reilly	35 U.S.C. § 103(a)	8

E. Claim Interpretation

The Board interprets claims using the “broadest reasonable construction in light of the specification of the patent in which [they] appear[.]” 37 C.F.R. § 42.100(b); *see* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012); *In re Cuozzo Speed Techs.*,

¹ When citing Miller, Kernighan, and O’Reilly, we refer to the page numbers added by Petitioner at the bottom of each page. *See* 37 C.F.R. § 42.63(d)(2).

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. § 103. Because the ’898 patent has an effective filing date before the effective date of the applicable AIA amendment, we refer to the pre-AIA version of 35 U.S.C. § 103.

LLC, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015). Under this standard, we interpret claim terms using “the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant’s specification.” *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). We presume that claim terms have their ordinary and customary meaning. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) (“The ordinary and customary meaning is the meaning that the term would have to a person of ordinary skill in the art in question.” (internal quotation marks omitted)). A patentee, however, may rebut this presumption by acting as his own lexicographer, providing a definition of the term in the specification with “reasonable clarity, deliberateness, and precision.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). The parties provide proposed interpretations for various limitations of the claims. *See* Pet. 10–16; Prelim. Resp. 10–13. For purposes of this Decision, however, we conclude that only the term “accompanying” requires interpretation.

Petitioner argues that the term “accompanying” should be interpreted to mean “associated.” Pet. 12–14. As support, Petitioner cites a dictionary definition of “accompany” as “to go along or in company with,” “to exist or occur in association with,” or “to cause to be associated with or attended by.” *Id.* at 12 (citing Ex. 1011, 4). According to Petitioner, although the first definition “implies physical togetherness,” the term should be interpreted according to the latter two definitions because “nothing in the [S]pecification” of the ’898 patent indicates that “accompanying” requires the performance management data and meta data to accompany each other

physically or travel together with each other. *Id.* at 13–14. Petitioner relies on the testimony of Tal Lavian, Ph.D., regarding how a person of ordinary skill in the art would have understood the term. *Id.* (citing Ex. 1002 ¶ 51). Dr. Lavian’s analysis mirrors Petitioner’s arguments in the Petition. Patent Owner does not dispute Petitioner’s proposed interpretation. *See* Prelim. Resp. 12–13.

Based on the record presented, we do not agree with Petitioner’s proposed interpretation. The dictionary definitions submitted by Petitioner indicate that “accompanying” may have two potential meanings: physically going along with or being associated with. *See* Ex. 1011, 4. The term’s usage in claim 1 and the written description of the ’898 patent, however, indicate that the term was meant to mean the former. *See ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003) (“the context of the surrounding words of the claim . . . must be considered in determining the ordinary and customary meaning of those terms”); *Renishaw PLC v. Marposs Societa’ Per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998) (“where there are several common meanings for a claim term, the patent disclosure serves to point away from the improper meanings and toward the proper meaning”).

First, claim 1 recites “collecting performance management data having accompanying meta data, the meta data including . . . information indicating operations to be performed on the performance management data,” and “generating output data for display using the collected performance management data according to the information indicating the operations to be performed on the performance management data.” Thus, the performance management data is collected, and that data *has*

accompanying meta data. Reading the claim language in context, the phrase “collecting performance management data having accompanying meta data” suggests that the meta data accompanies the performance management data when the step of collecting is performed (i.e., the meta data travels together with the performance management data being collected). Both the performance management data and the accompanying meta data are collected together in the first claim step, and then output data is generated based on the performance management data “according to” a portion of the meta data in the second step. Interpreting claim 1 to mean that the meta data physically goes along with the performance management data when the performance management data is collected is consistent with the surrounding language of the claim.

Second, we disagree with Petitioner’s assertion that there is nothing in the Specification indicating that “accompanying” means physically going along with. See Pet. 13. To the contrary, the Specification provides:

In the present invention, generic modules, as well as the data storage, receive data and are able to process the data using information that accompanies the data. Thus, the data is fed into [a] module, regardless of its type, from the environment that created it. A meta data definition accompanies the data and indicates what it is that is being collected and what is to be done with the data being collected. For example, the meta data may indicate that an alarm is to be associated with the data or may indicate how to administer. Thus, in order to enable or add a new application to monitor a new element, the module that obtains the data [] returns a value and define[s] what is to be done with the data. Then, the other[] modules, such as the stage module, the analysis module and the presentation module understand what is defined in the data to take the corresponding operations or actions, based on the meta

data that indicates what operations or actions to perform on or with the data.

Ex. 1001, col. 4, ll. 11–27 (emphasis added). The above excerpt indicates that in “the present invention,” the system receives the data and meta data together and processes the data using the meta data that accompanies the data. *Id.* Other portions of the Specification include similar language. *See, e.g., id.* at col. 7, ll. 28–31 (“Network monitor 150 collects meta data and data defined by the script-based programs from the network 160 using service monitor 140. The returned data 170 is then processed by network monitor 150.”), col. 4, ll. 28–32 (“receipt of new data with different meta data”), 32–36 (“collect data and the meta data”), Fig. 3 (depicting step 170 labeled “Meta Data & User-defined Data Collected by the Service Monitor”). Importantly, the Specification also states that the system behaves differently when it receives different meta data. *See id.* at col. 4, ll. 28–32 (the user interface shown to the user “may change by what is in the meta data,” such that “while one application may show 4 variables, the receipt of new data with different meta data may result in the display of 19 variables”). This demonstrates that meta data is not merely associated with the data, but instead is collected with the data and impacts how that specific data (as opposed to previously collected data) is treated by the system. Like the language of claim 1 itself, the Specification supports interpreting claim 1 to mean that the meta data physically goes along with the performance management data when the performance management data is collected. *See* Pet. 9 (acknowledging that “[t]he performance management system . . . uses ‘meta data’ accompanying the data collected from the network components”).

Further, we are not persuaded by Petitioner's argument that the Specification supports its proposed interpretation. *See* Pet. 13. Petitioner contends that performance management data is collected and analyzed "using associated meta data that was already present in the performance management system," *id.*, citing the following from the Specification:

Once the [service] monitor is activated, the network perform[ance] monitoring and management system runs it periodically to collect the type of data defined in the service monitor. *Network monitor also analyzes the data with meta data, which has already been defined within performance monitoring and management system.*

Ex. 1001, col. 10, l. 67–col. 11, l. 6 (emphasis added). The fact that meta data may be "defined" at the point when the data is being analyzed, however, does not mean that it was not collected along with the performance management data. Indeed, this excerpt is consistent with the other portions of the Specification cited above because if the data and meta data are collected together, the meta data would be "already . . . defined" when the network monitor uses it to analyze the data. Petitioner's proposed reading of "accompanying" as reflecting merely an association between the data and meta data is not reasonable given the surrounding language of the claim and the Specification.

On this record, applying the broadest reasonable interpretation of the claims in light of the Specification, we interpret "accompanying" to mean physically going along with.

II. DISCUSSION

A. Obviousness Ground Based on Miller (Claims 1–7 and 9–12)

Petitioner contends that claims 1–7 and 9–12 are unpatentable over Miller under 35 U.S.C. § 103(a), relying on the supporting testimony of Dr. Lavian. Pet. 20–47 (citing Ex. 1002). We are not persuaded that Petitioner has established a reasonable likelihood of prevailing on its asserted ground for the reasons explained below.

1. Miller

Miller describes a system called “satool” for monitoring a large number of distributed network devices. Ex. 1003, 10. The system has three components: a Simple Network Management Protocol (SNMP) agent that “runs on each machine being monitored,” a data collecting server that polls the SNMP agents periodically and stores collected data in a database, and a display system that provides a graphical user interface (GUI) to the user for viewing the data. *Id.* at 10–11. The user can provide configuration parameters such that, for example, an alarm occurs when a particular variable for a machine exceeds a threshold. *Id.* The SNMP agents use “helper scripts” containing standard UNIX commands to collect data. *Id.* at 11–12.

Miller describes a process for adding a new variable to monitor, and provides as an example “a new variable that does a *traceroute*(8)³ to an

³ In general, a traceroute utility specifies the route data packets travel between a local system and a remote system. *See* Ex. 1005, 13–14.

outside machine to make sure gatewaying is working correctly.” *Id.* at 16.
Miller discloses:

The first step is to write a helper script that the SNMP agent will call. In this case, it is a *perl*(1) script called traceroute-helper. The script simply does a *traceroute*(8) to the machine enss.ucar.edu and prints 1 if it was successful and 0 if there was a problem (routing loop or host unreachable).

Id. Next, the new variable is added to the data collecting server’s management information base (MIB), the SNMP agent’s software is modified to run the traceroute-helper script when appropriate, the data collecting server’s software is modified to collect the new variable from the SNMP agent, and the display system’s software is modified to display the new variable. *Id.* at 16–17.

2. Independent Claim 1

Petitioner argues that Miller discloses⁴ all of the limitations of claim 1. Pet. 20–28. For example, Petitioner identifies the data provided by the traceroute-helper script (i.e., a 1 if the gateway is working or a 0 if not) in Miller as “performance management data.” *Id.* at 20–21 (citing Ex. 1003, 10, 16–17).

⁴ Although Petitioner’s asserted ground as to independent claims 1 and 6 is based on obviousness under 35 U.S.C. § 103(a), Petitioner argues in its Petition that Miller discloses every limitation of the claims, then includes a single sentence stating that Miller “discloses or suggests” every limitation. Pet. 28, 43. Patent Owner contends that the Petition should be denied because Petitioner fails to identify differences between the claimed invention and the prior art under *Graham v. John Deere Co.*, 383 U.S. 1 (1966), and fails to provide any reason why a person of ordinary skill in the art would have modified Miller. Prelim. Resp. 1–9. We need not reach these issues, however, as Petitioner’s asserted ground fails for other reasons explained herein.

Claim 1 further recites “meta data” having two components: “information defining the performance management data” and “information indicating operations to be performed on the performance management data.” Petitioner identifies three instances of information defining performance management data in Miller: (1) the “satooolGatewayOk” object added to the MIB, which defines the object as an integer (e.g., 1, 0), (2) the formatted string “gateway_ok %d” created by the data collecting server’s software, where the “%d” string is replaced with 1 or 0 depending on the output of traceroute-helper, and (3) the data string “%d” that is part of the source code added to the SNMP agent’s software, which instructs the software to read an integer from traceroute-helper. *Id.* at 23–25 (citing Ex. 1003, 12–13, 16–17). With respect to information indicating operations to be performed on performance management data, Petitioner identifies the “gateway_ok 0 X” variable definition added to the display system’s software, where “gateway_ok” is the name of the variable that will store the output of traceroute-helper, “0” instructs the system to trigger an alarm if traceroute-helper outputs a 0 (indicating that there was a connection problem), and “X” specifies that the variable is a text object. *Id.* at 25–27 (citing Ex. 1003, 16–17).

Petitioner has not shown sufficiently that Miller teaches “collecting performance management data having accompanying meta data,” as recited in claim 1. Petitioner’s arguments are premised on its proposed interpretation of “accompanying” as merely being associated with. As explained above, we disagree and interpret “accompanying” to mean physically going along with. *See supra* Section I.E. The various pieces of information identified by Petitioner as “meta data” do not physically go

along with the 1 or 0 outputted by the traceroute-helper script (i.e., the alleged “performance management data” in Miller). Rather, they are portions of source code added to the various systems’ software to enable those systems to act on the traceroute-helper output. For example, the “gateway_ok 0 X” string added to the display system’s software merely defines a variable that tells the system how to display the output of traceroute-helper. *See* Pet. 26; Ex. 1003, 17 (“The final step is to add the new variable to the GUI. It must be added to the default list in procedure BuildList, file IO.tcl.”). The string does not physically go along with the 1 or 0 output from traceroute-helper when that value is collected. *See* Pet. 21–22. Petitioner does not explain how Miller teaches the collection of performance management data with meta data that physically goes along with the performance management data, and does not explain why doing so would have been obvious based on Miller. Accordingly, Petitioner has not demonstrated a reasonable likelihood of prevailing on its assertion that claim 1, as well as claims 2–5 depending therefrom, are unpatentable over Miller.

3. Independent Claim 6

Petitioner argues that Miller discloses all of the limitations of claim 6. Pet. 37–43. For example, Petitioner identifies the satool system in Miller as a “performance management system,” the satool system’s GUI as an “interface between a user and a performance management system,” and Miller’s helper scripts, such as traceroute-helper, as “script-based programs” that are integrated to the system as “service monitor[s].” *Id.* at 37–41.

Claim 6 further recites “the performance management system using the service monitor to periodically collect data of the defined data types from the components.” The dispositive issue with respect to this limitation is Petitioner’s identification of “data” that allegedly is collected in Miller. Petitioner appears to advance two theories. First, Petitioner refers to its analysis of dependent claim 3 and argues as follows:

[T]he helper scripts collect data from the client computers, the type of data collected being defined by the helper script itself. For example, Miller describes an exemplary “*traceroute-helper*” script that collects data regarding whether a computer can reach other networked computers via a network gateway, and returns data of an integer type to indicate the result. As fully explained in connection with claim 3, helper scripts can collect data from multiple client computers. The helper scripts in Miller therefore are used by the “performance management data” to “collect data of the defined data types from the components.”

Id. at 42 (citations omitted, emphasis added). In its analysis of claim 3, Petitioner refers to its analysis of claim 2⁵ and argues that traceroute-helper “collects performance data indicating whether or not a network gateway is operational.” *Id.* at 34. In its analysis of claim 2, Petitioner argues that traceroute-helper collects “performance management data” (i.e., a 1 or 0) “indicating whether a network gateway is down.” *Id.* at 20–21, 30. Thus, Petitioner appears to be arguing that the 1 or 0 returned by traceroute-helper is the “data” that allegedly is collected in claim 6. Claim 6, however,

⁵ Claim 2 recites “running the script-based program via the performance management system to periodically collect the performance management data from components in a network.” Claim 3, which depends from claim 2, recites “integrating the at least one script-based program into the performance management system as a service monitor” and “using the service monitor to periodically collect the performance data.”

requires that the data be collected “from the components.” The 1 or 0 in Miller is a value *determined* by the traceroute-helper script based on whether it successfully reached another machine, not a value collected from another machine. See Ex. 1003, 16 (“The script simply does a *traceroute*(8) to the machine enss.ucar.edu and *prints* 1 if it was successful and 0 if there was a problem (routing loop or host unreachable).” (second emphasis added)). Therefore, to the extent Petitioner is relying on the 1 or 0 as the “data” in claim 6, Petitioner’s argument fails. See Prelim. Resp. 16, 25–26.

Second, in the context of claim 2, Petitioner argues that because traceroute-helper “performs a traceroute to another computer,” it is “collecting data from the other networked computer in determining whether or not it is reachable, and returning that data to the SNMP agent.” Pet. 32–33. Petitioner points to O’Reilly as “confirming that [a traceroute operation] receives a response message from the target machine and components along the connection path to the target machine.” *Id.* (citing Ex. 1005, 14). To the extent Petitioner is relying on a “response message” returned to the SNMP agent running traceroute-helper as the “data” in claim 6, we likewise are not persuaded. Claim 6 recites “the script-based programs defining data types not provided by the performance management system” and “using the service monitor to periodically collect data of the defined data types from the components.” Petitioner does not explain sufficiently how any response message would constitute data “of the . . . data types” defined by the traceroute-helper script.

Thus, under either theory, we are not persuaded that Miller teaches “using the service monitor to periodically collect data of the defined data types from the components,” as recited in claim 6. Accordingly, Petitioner

has not demonstrated a reasonable likelihood of prevailing on its assertion that claim 6, as well as claims 7 and 9–12 depending therefrom, are unpatentable over Miller.

4. Conclusion

Upon review of Petitioner’s analysis and the testimony of Dr. Lavian, we are not persuaded that Petitioner has shown a reasonable likelihood of prevailing on its assertion that independent claims 1 and 6, as well as claims 2–5, 7, and 9–12 depending therefrom, are unpatentable over Miller.

B. Obviousness Ground Based on Miller, Kernighan, and O’Reilly (Claim 8)

Petitioner contends that claim 8 is unpatentable over Miller, Kernighan, and O’Reilly under 35 U.S.C. § 103(a). Pet. 47–55. Claim 8 depends from claim 6, and Petitioner does not rely on Kernighan or O’Reilly for the “using the service monitor to periodically collect data of the defined data types from the components” limitation of claim 6. We are not persuaded that Petitioner has established a reasonable likelihood of prevailing on its asserted ground for the reasons explained above with respect to claim 6. *See supra* Section II.A.3.

C. Conclusion

We conclude that Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to at least one claim of the ’898 patent challenged in the Petition. Therefore, we do not institute an *inter partes* review on any of the asserted grounds as to any of the challenged claims.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is denied as to all challenged claims of the '898 patent.

IPR2015-01601
Patent 6,816,898 B1

PETITIONER:

Heidi L. Keefe
Phillip E. Morton
Andrew C. Mace
COOLEY LLP
hkeefe@cooley.com
pmorton@cooley.com
amace@cooley.com

PATENT OWNER:

Robert A. Cote
Pierre Hubert
Robert Auchter
Kevin Schubert
McKOOL SMITH, P.C.
rcote@mckoolsmith.com
phubert@mckoolsmith.com
rauchter@mckoolsmith.com
kschubert@mckoolsmith.com