**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

MOD STACK LLC,	CASE NO. 1:18-cv-00332-GMS-CJB
Plaintiff,	
v.	**PATENT CASE**
ACULAB, INC.,	**JURY TRIAL DEMANDED**
Defendant.	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Mod Stack LLC files this First Amended Complaint for Patent Infringement against Aculab, Inc., pursuant to Rule 15(a)(1)(B), Fed.R.Civ.P., and would respectfully show the Court as follows:

I.   THE PARTIES

1.   Plaintiff Mod Stack LLC ("Mod Stack" or "Plaintiff") is a Texas limited liability company with its principal place of business at 2150 S. Central Expy, McKinney, Texas 75070.

2.   On information and belief, Defendant Aculab, Inc. ("Defendant"), is a Delaware Corporation with a place of business at 100 River Ridge Drive, Suite 101, Norwood, MA 02062. Defendant has a registered agent at The Corporation Trust Company, Corporation Trust Center, 1209 Orange St., Wilmington, DE 19801.

II.   JURISDICTION AND VENUE

3.   This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction of such action under 28 U.S.C. §§ 1331 and 1338(a).

4.   On information and belief, Defendant is subject to this Court's specific and general personal jurisdiction, pursuant to due process and the Delaware Long-Arm Statute, due at least to

1

its business in this forum, including at least a portion of the infringements alleged herein. Furthermore, Defendant is subject to this Court's specific and general personal jurisdiction because Defendant is a Delaware corporation.

5.　　Without limitation, on information and belief, within this state, Defendant has used the patented inventions thereby committing, and continuing to commit, acts of patent infringement alleged herein. In addition, on information and belief, Defendant has derived revenues from its infringing acts occurring within Delaware. Further, on information and belief, Defendant is subject to the Court's general jurisdiction, including from regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to persons or entities in Delaware. Further, on information and belief, Defendant is subject to the Court's personal jurisdiction at least due to its sale of products and/or services within Delaware. Defendant has committed such purposeful acts and/or transactions in Delaware such that it reasonably should know and expect that it could be haled into this Court as a consequence of such activity.

6.　　Venue is proper in this district under 28 U.S.C. § 1400(b). On information and belief, Defendant is incorporated in Delaware. On information and belief, from and within this District Defendant has committed at least a portion of the infringements at issue in this case.

7.　　 For these reasons, personal jurisdiction exists and venue is proper in this Court under 28 U.S.C. §§ 1391(b) and (c) and 28 U.S.C. § 1400(b).

III. COUNT I
(PATENT INFRINGEMENT OF UNITED STATES PATENT NO. 7,460,520)

8.　　Plaintiff incorporates the above paragraphs herein by reference.

9.　　On December 2, 2008, United States Patent No. 7,460,520 ("the '520 Patent") was duly and legally issued by the United States Patent and Trademark Office. The '520 Patent is titled

"Apparatus and Method for Using Multiple Call Controllers of Voice-Band Calls." The '520 patent issued from Application No. 10/463,964 filed on June 18, 2003, and is related to Provisional Application No. 60/427,804 filed on November 20, 2002. A true and correct copy of the '520 Patent is attached hereto as Exhibit A and incorporated herein by reference.

10.   Mod Stack is the assignee of all right, title and interest in the '520 patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the '520 Patent. Accordingly, Plaintiff possesses the exclusive right and standing to prosecute the present action for infringement of the '520 Patent by Defendant.

11.   The invention of the '520 patent is generally directed to systems for supporting multiple central controllers of voice-band calls. In the past, circuit-switched networks were used to carry voice traffic from one subscriber to another, while separate packet-switched networks were used to carry data traffic. Two networks were used because the existing protocols and technology available for packet networks did not provide certain characteristics necessary for voice-band calls, such as low latency and deterministic quality of service. Improvements in packet network protocols and technology which address these deficiencies allow a new kind of packet network, sometimes called a "converged network," to carry both voice and data traffic.

12.   The equipment that interfaces a converged packet network with a circuit-switched network is referred to as a "voice gateway."   (Ex. A tat col. 1:31-33). The term "voice gateway" is a defined term for a person skilled in the art for a particular type of apparatus. (*Id.*; *see*, *e.g.*, https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucme/srnd/design/guide/cmesrnd/gateway.html). A voice gateway offers a gateway for voice over IP (VoIP) calls to, and from, traditional analog or digital Public Switched Telephone Network ("PSTN") or private branch exchange ("PBX") calls. (*Id.*).

13.   The voice gateway interfaces with one or more call controllers on its trunk side, and with one or more integrated access devices ("IADs") on its subscriber side. The IAD provides a link to the packet network and to the voice gateway for multiple subscribers. The call controller directs the voice gateway to make voice connections. In a circuit-switched network, call control is performed by a telephony switch. In a convergence packet-network, call control is performed by a "softswitch." Several different call control protocols are in use by different switches.

14.   Migrating from the circuit-switched network to the converged network is an evolutionary process, so that for some period of time many customers will be reachable only through a circuit-switched network. Yet all customers expect the ability to call from one telephone to any other telephone, regardless of what type of network the originating and terminating telephones are located on. Converged networks therefore need to interface with circuit-switched networks as well as other converged networks. In view of this, the inventors of the '520 patent recognized the need for an unconventional voice gateway which can support multiple call control protocols and interface with different types of telephony switches and different types of softswitches, simultaneously. The inventors therefore invented the apparatuses and methods disclosed in the claims of the '520 patent.

15.   The '520 patent provides several examples of voice gateways for voice-band calls between telephony devices on different networks. (*E.g.*, Ex. A at col. 3:31 – col. 6:38; Figs. 1-4). The examples illustrate how voice-band calls are connected by a voice gateway through the packet and/or circuit-switched network in which a voice-band call is connected by a different type of call controller (e.g., an IAD for a packet-switched network and a Class 5 switch for a circuit-switched network (PSTN)). (Ex. A at col. 6:24-27). For example, Figure 1 is a block diagram illustrating voice gateway (101) handling a voice-band call between a telephony device (102a) and another

telephony device (not shown) on a Public Switched Telephone Network ("PSTN") using a Class

5 switch (103) as a call controller. This diagram shows a voice-band path established between

telephony device (102a) and Class 5 switch (103) to a telephony device in the PSTN (108):

FIG. 1
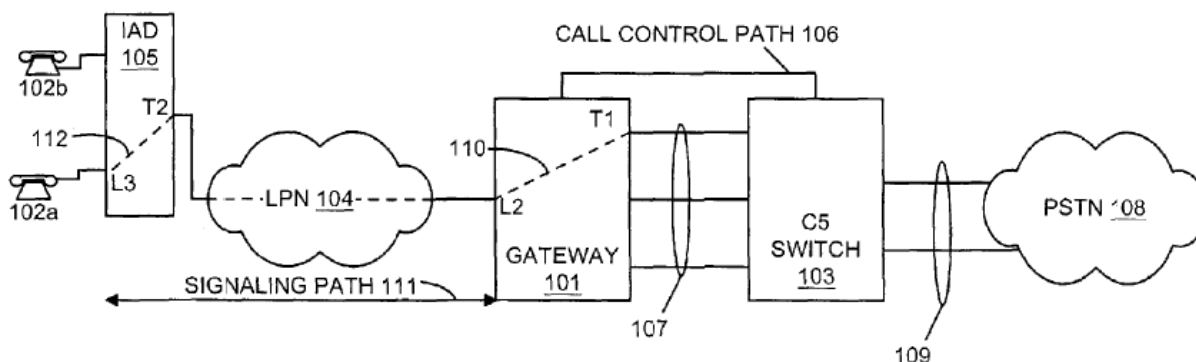
(Ex. A at Fig. 1). Telephony device (102a) communicates with voice gateway (101) over Local

Packet Network ("LPN") (104), with Integrated Access Device ("IAD") (105) converting analog

voice signals to voice packets, and vice-versa. (*Id.* at col. 3:42-46). The Class 5 switch (103) is

the master in the master-slave model for call control and the voice gateway (101) is the slave which

controls telephone device (102a) under direction of the Class 5 switch. (*Id.* at col. 3:47-50). In

this example, the Class 5 switch (103) sends a GR-303 call control message directing the voice

gateway (101) to connect trunk 1 (T1 in voice gateway (101)) to line 2 (L2 in voice gateway (101)).

(*Id.* at col. 3:66-col. 4:2). Voice gateway (101) also converts the GR-303 call control messages

into signaling message which are communicated to IAD (105) over logical signaling path (111).

(*Id.* at col. 4:3-5). IAD (105) acts on the signaling messages by setting up the voice path 112

connecting trunk 2 (T2 in IAD (105)) and line 3 (L3 in IAD (105)). (*Id.* at col. 4:5-7).

16.   Another example is Fig. 2 that illustrates voice gateway (101) handling a voice-

band call between a telephony device (102a) and another telephony device (not shown) on the

PSTN (108), this time using a Class 5 softswitch (201) as the call controller. (*Id.* at col. 4:22-25):
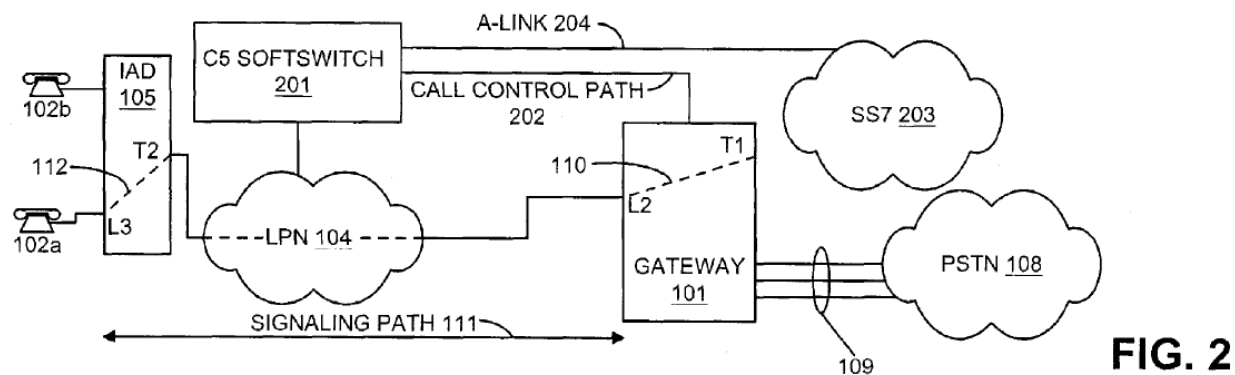
FIG. 2

(*Id.* at Fig. 2). Although the Class 5 softswitch (201) uses the same master/slave model for call control as the Class 5 switch, the Class 5 softswitch uses a different type of call control protocol than a classic telephony switch. (*Id.* at col. 4:32-34). In this example a Media Gateway Control Protocol ("MGCP") is used as the call control protocol, although another protocol such as H.248 or Session Initiated Protocol ("SIP") could be used. (*Id.* at col. 4:34-37). Class 5 softswitch (201) exchanges MGCP protocol messages with voice gateway (101) through LPN (104) over logical call control path (202). (*Id.* at col. 4:38-40). The softswitch allows separation of call control messages and voice traffic at the physical level. (*Id.* at col. 4:42-44). In the example, Class 5 softswitch (201) sends a call control message directing voice gateway (101) to connect trunk 1 (T1 in voice gateway (101)) to line 2 (L2 in voice gateway (101)). (*Id.* at col. 4:66 – col. 5:1). Voice gateway (101) acts on the message to set up voice path (110) connecting trunk 1 (T1 in voice gateway (101)) and line 2 (L2 in voice gateway (101)). (*Id.* at col. 5:1-2). Voice gateway (101) also converts the MGCP call control message into signaling messages which are communicated to IAD 105 over logical signaling path (111). (*Id.* at col. 5:6-8). IAD (105) acts on the signaling messages, as is shown in voice path 112 connecting trunk 2 (T2 in IAD (105) to line 3 (L3 in IAD (105)). (*Id.* at col. 5:8-10).

17.   Figure 6 of the '520 patent is an exemplary block diagram of a voice gateway (101a) that is an embodiment of the claimed invention, which supports both packet and TDM/PSTN interfaces:
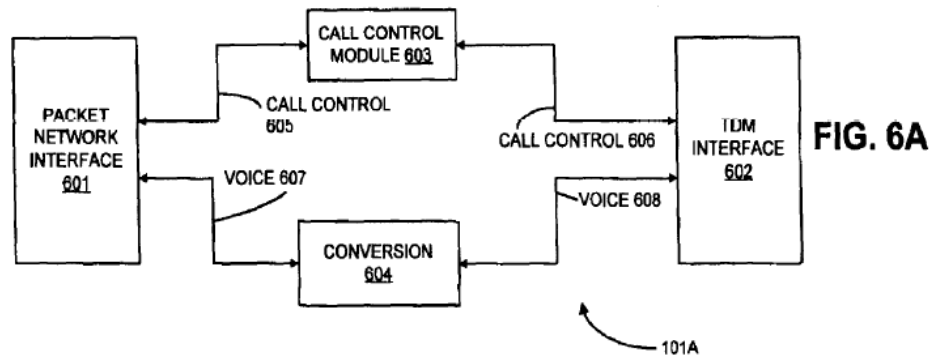
(Ex. A at Fig. 6a). Voice gateway (101A) has a packet network interface (601); a TDM/PSTN interface (602), a call control module (603), and a conversion module (604). (*Id.* at col 7:64-67).

During a voice-band call, voice gateway (101a) operates to cross-connect two voice streams under the direction of a call controller, while also providing any necessary conversion required. (*Id.* at col. 8:1-4). Voice packets and call control packets enter/exit voice gateway (101a) through packet network interface (601) for transport to/from LPN (104). (*Id.* at col. 8:10-12). Voice gateway (101a) also has a TDM/PSTN interface (602), which transports timeslots carrying voice and call control to/from Class 5 switch (103). (*Id.* at col. 8:12-14). Incoming packets or timeslots which contain call control messages are sent over links (605) and (606) to call control module (603). (*Id.* at col. 8:14-16). Call control module (603) then: (1) acts on the information; (2) generates a call control message and transmits it to the sender (through either packet network interface (601) or TDM interface (602)); (3) generates a call control message and transmits it to the other side of the connection (through either packet network interface (601) or TDM/PSTN interface (602)); or (4) any combination of these. (*Id.* at col. 8:16-22).

18.   Figures 9-13 of the '520 patent provide examples of the interactions within the call control module (603 in Figure 6)), which is exemplary of the claimed invention, during various call scenarios involving different types of call controllers, *i.e.*, how it operates with different protocols. For example,

- Figs. 9A and 9B, viewed together, illustrate the interactions within call control module 603 during an outgoing call from the IAD (105) to a Class 5 switch (103A) using V5 as the protocol;

- Figs. 10A and 10B, viewed together, illustrate the interactions within call control module (603) during an outgoing call from the IAD (105) to a Class 5 switch (103a) using GR-303 as the call control protocol;

- Figs. 11A and 11D, viewed together, illustrate the interactions between the call control module (603) during an outgoing call from the IAD 105 to a Class 5 softswitch (201) using MGCP as the call control protocol;

- Figs. 12A and 12B, viewed together, illustrate the interactions between the call control module (603) during an incoming call from a switch (103a) to the IAD (105) using V5 as the call control protocol; and

- Figs. 13A and 13B, viewed together, illustrate the interactions between the call control module (603) during an incoming call from a switch (103a) to the IAD (105) using GR303 as the call control protocol.

(*Id.* at col. 11:9 – col. 18:19).

19.   The call control module is a physical device.

20.   Figs. 9-13 demonstrate that the software architecture of the call control module (602), which encapsulates protocol-specific details in Protocol Endpoints (701) and Protocol

Endpoint (702) (*see* Figs. 7 and 8), allow many of the object interactions to be similar even though the direction of the call and the type of call controller varies. (*Id.* at col. 10:61-66). The object interactions required to establish a bearer connection between the two Protocol Endpoints is similar in each diagram because the two endpoints use an internal message set to establish a connection. (*Id.* at col. 10:66 – col 11:3).

21.   By using the internal messages as described in the claims, the claimed invention improves upon the routine prior art protocol-specific actions that are limited to the interaction between a Protocol Endpoint and its external controller. (*Id.*at col. 11:3-5). Using an internal protocol such that the protocol-specific actions are no longer limited to the interaction between a Protocol Endpoint and its external controller, is neither generic, nor conventional, and does not use generic components.

22.   The unconventional nature of the claimed invention is also supported by the prosecution history.

23.   In the prosecution history, applicant argued that the prior art only used a single link protocol governing communications, which is different than "a first protocol endpoint configured to receive at least one first external call control message of a first protocol… and to map the at least one first external call control message to at least one corresponding first internal call control message of an internal protocol" as required by claim 1. (Ex. B at 19). The prior art did not disclose "mapping to a corresponding internal call control message" because the prior art does not have an internal call control message or protocol. (*Id.* at 19-20).

24.   The prior art discussed during the prosecution history also did not operate on call control messages or mapping call control messages, and instead operated on voice packets. (*Id.* at 20-21, 22-23).

25.   The prior art discussed during the prosecution history also did not disclose that signaling is mapped to a second internal control message of an internal protocol, much less that "the first protocol endpoint is further configured to receive the at least one second internal call control message and to map the at least one second internal call control message to a third call control message of a first protocol." (*Id.* at 24-25). Instead, the prior art used conventional narrow band signaling. (*Id.* at 24). The prior art simply passed data forward, which is different from mapping a second internal call control message to a third external call control message of the first protocol. (*Id.*).

26.   The prior art discussed in the prosecution history also did not disclose a protocol adapter to "route the at least one first internal call control message to the second protocol endpoint." (*Id.* at 22-23).

27.   As explained in the prosecution history, the claimed apparatus is unconventional and uses non-generic components because, at a minimum, it uses an internal call control messages, maps external call control messages to internal call control messages and vice versa, and uses a protocol adaptor to route internal call control messages to endpoints. (*Id.* at 18-25). The elements of the claimed invention are therefore not simply using prior art elements in a well-understood, conventional, or routine way. (*Id.*).

28.   Claim 1 is directed to a type of apparatus called a voice gateway.

29.   The apparatus in Claim 1 is an improvement to a voice gateway that connects a local packet network ("LPN") to a circuit-switched network.

30.   The apparatus in claim 1 comprises two protocol endpoints (a first protocol endpoint and a second protocol endpoint) and a protocol adapter.

31.   The first protocol endpoint in claim 1 is configured to perform at least these specific tasks:

- to receive at least a first call control message of a first protocol from a first call controller associated with a circuit-switched network;

- to map the first external call control message to a corresponding first internal call control message of an internal protocol; and

- to receive a second internal call control message and map it to a third external call control message of the first protocol.

32.   The second protocol endpoint in claim 1 is configured to perform at least these specific tasks:

- to receive at least a second external call control message of a second protocol from an IAD associated with the LPN;

- to map the second external call control message to a corresponding second internal call control message of an internal protocol; and

- to receive the first internal call control message and to map the first internal call control message to a fourth external call control message of the second protocol.

33.   The apparatus of claim 1 has a protocol adapter that is configured to perform at least these specific tasks:

- to receive the first and second internal call control messages;

- to route the first internal call control message to the second protocol endpoint; and

- to route the second internal call control message to the first protocol endpoint.

34.   In addition to the protocols and standards described in the patent, there are other protocols and standards of packet protocols that are commonly used to carry voice and are known in the art. (*Id.* at col. 7:57-59). A person of ordinary skill in the art would know that the invention as described in the '520 patent is not dependent on using only the protocols described in the examples in the '520 patent and would understand that the claimed invention would be applicable to other protocols and standards for call control messages. (*Id.* at col. 7:59-63). As explained in the specification, the many examples of using the claimed invention with different protocols demonstrates that a person skilled in the art would be taught to use the claimed invention with any of the call control and voice protocols used to connect a local packet network and a circuit-switched network for voice-band calls. (*Id.* at col. 7:57-63, col. 10:61 – col 11:3). This is possible because of the unconventional nature of the claimed invention of using internal call control messages in the manner described by the claims.

35.   The claims are not directed to using a common language to translate between two foreign languages. As explained in the specification, it was already known how to directly connect LPNs with circuit-switched networks without first creating an internal message protocol. (*E.g.*, Ex. A at col. 1:31-44). There was no need to find a common language to translate between two foreign languages. However, the prior art had flaws because protocol-specific actions were limited to the interaction between a Protocol Endpoint and its external controller. (*E.g.*, *id.* at col. 11:3-5). The inventors of the '520 patent discovered that this problem could be solved through the use of internal call control messages in the unconventional way claimed in the '520 patent. (*E.g.*, *id.* at col. 10:59 - 11:3).

36.   **Direct Infringement.** Upon information and belief, Defendant has been and now is directly infringing at least claim 1 of the '520 patent in the State of Delaware, in this District,

and elsewhere in the United States, by actions comprising making, using, selling, and/or offering for sale an apparatus for connecting a local packet network and a circuit-switched network, including Aculab devices such as the ApplianX IP Gateway ("Accused Instrumentality").

37.   The Accused Instrumentality is an apparatus that connects a local packet network and a circuit-switched network. The Accused Instrumentality provides an interconnect between PSTN and various IP endpoints, and between IP endpoints and PSTN to enable communication between a circuit-switched telephony network and Session Initiated Protocol (SIP) compatible remote devices such as IP phones. The Accused Instrumentality brings PSTN subscribers into the IP core and provides a bridge between circuit- and packet-based networks.   The Accused Instrumentality supports call routing such as from PSTN-to-IP and IP-to-PSTN.

38.   The Accused Instrumentality has a first protocol endpoint configured to receive a first external call control message of a first protocol from a first call controller associated with the circuit-switched network, for example a call control message from a T1 or PSTN connection using a DMS-100 or QSIG. (*E.g.*, https://www.aculab.com/gateways-platforms-and-services/gateways/enterprise-gateway; https://ss-usa.s3.amazonaws.com/c/308458954/media/59130a23489da/Aculab-ApplianX-IP-Gateway-Solution-Brief-final.pdf). The Accused Instrumentality maps the first external call control message to one corresponding first internal call control message of an internal protocol. (*E.g.*, https://ss-usa.s3.amazonaws.com/c/308458954/media/59899e07cf5d9/ApplianX_VoIP_migration_strategy.pdf).

39.   The Accused Instrumentality has a second protocol endpoint configured to receive at least one second external call control message of a second protocol from an integrated access device (IAD) associated with the LPN, such as a call control message from a VoIP using an SIP

protocol.   (*E.g.*,   https://ss-

usa.s3.amazonaws.com/c/308458954/media/59db76383b70e/ApplianX_IP_Gateway_issue_12.p

df).   The Accused Instrumentality maps the second external call control message to a

corresponding second internal call control message of an internal protocol. (*E.g.*, https://ss-

usa.s3.amazonaws.com/c/308458954/media/59899e07cf5d9/ApplianX_VoIP_migration_strategy

.pdf).

40.   The Accused Instrumentality has a protocol adapter configured to receive the first

and the second internal call control messages and to route the first internal call control message to

the second protocol endpoint and the second internal call control message to the first protocol

endpoint. For example, for a connection between a TDM/PSTN endpoint and an VoIP endpoint,

a first internal call message from the TDM/PSTN endpoint would be routed through a protocol

adaptor to the VoIP endpoint and a second internal message from the VoIP endpoint would be

routed through protocol adapter to the TDM/PSTN endpoint.   (*Id.*).

41.   The first protocol endpoint of the Accused Instrumentality is further configured to

receive the second internal call control message and to map the second internal call control

message to a third external call control message of the first protocol. For example, for a connection

between TDM/PSTN and VoIP, the second internal call control message for the VoIP connection

to the TDM/PSTN would be mapped to a third external call control message of the first protocol

(DMS-100   or   QSIG   protocol)   at   the   TDM/PSTN   interface. (*E.g.*,   *id.*,   https://ss-

usa.s3.amazonaws.com/c/308458954/media/59db76383b70e/ApplianX_IP_Gateway_issue_12.p

df;   https://ss-

usa.s3.amazonaws.com/c/308458954/media/59899e07cf5d9/ApplianX_VoIP_migration_strategy

.pdf).

42.   The second protocol endpoint of the Accused Instrumentality is further configured to receive at least one first internal call control message and to map at least one first internal call control message to a fourth external call control message of the second protocol. For example, for a connection between VoIP and TDM/PSTN, the first internal call control message for the TDM/PSTN connection to the VoIP would be mapped to a fourth external call control message of the second protocol (SIP protocol) at the VoIP interface. (*E.g.*, *id.*).

43.   At a minimum, Defendant has used the accused instrumentality by performing testing and usage of its Accused Instrumentality, for example for connection between TDM/PSTN and VoIP. Defendant has promoted the infringing use above, for example through advertising the use of the Accused Instrumentality to connect a LPN and a circuit-switched network.

44.   **Indirect Infringement.** Upon information and belief, Defendant has been and now is indirectly infringing by way of inducing infringement at least claim 1 of the '520 patent in the State of Delaware, in this District, and elsewhere in the United States, by providing to customers Accused Instrumentality. (*E.g.*, https://www.aculab.com/gateways-platforms-and-services/gateways/enterprise-gateway; https://ss-usa.s3.amazonaws.com/c/308458954/media/59130a23489da/Aculab-ApplianX-IP-Gateway-Solution-Brief-final.pdf; https://ss-usa.s3.amazonaws.com/c/308458954/media/59db76383b70e/ApplianX_IP_Gateway_issue_12.pdf; https://ss-usa.s3.amazonaws.com/c/308458954/media/59899e07cf5d9/ApplianX_VoIP_migration_strategy.pdf). For example, Defendant posts information to purchase and explain the use of the Accused Instrumentality. (*Id.*). Defendant is a direct and indirect infringer, and its customers using the Accused Instrumentalities are direct infringers. Upon information and belief, Defendant had actual

knowledge of the '520 patent and the infringing activity since at least March 5, 2018, when it was served with the original Complaint in this action and has known of its infringement since at least that date.

45.   Upon information and belief, since becoming aware of the '520 patent, Defendant is and has been committing the act of inducing infringement by specifically intending to induce infringement by providing the Accused Instrumentalities to its customers and by aiding and abetting its use in a manner known to infringe by Defendant, as described in the Original Complaint. Defendant encourages customers to use the Accused Instrumentalities for conducting the directly infringing use and advertises the directly infringing use by customers despite knowing of the infringing use. (*E.g.*, *id.*). On information and belief, Defendant knew or should have known that through its acts it was and is inducing infringement of the '520 patent since it became aware of the infringement at least as of the date of the service of the original Complaint.

46.   Plaintiff has been damaged as a result of Defendant's infringing conduct. Defendant is thus liable to Plaintiff for damages in an amount that adequately compensates Plaintiff for such Defendant's infringement of the '520 patent, *i.e.*, in an amount that by law cannot be less than would constitute a reasonable royalty for the use of the patented technology, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

47.   On information and belief, Defendant will continue its infringement of one or more claims of the '520 patent unless enjoined by the Court. Each and all of the Defendant's infringing conduct thus causes Plaintiff irreparable harm and will continue to cause such harm without the issuance of an injunction.

48. On information and belief, Defendant has had at least constructive notice of the '520 patent by operation of law, and there are no marking requirements that have not been complied with.

IV. JURY DEMAND

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

V. PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that the Court find in its favor and against Defendant, and that the Court grant Plaintiff the following relief:

a. Judgment that one or more claims of United States Patent No. 7,460,520 have been infringed, either literally and/or under the doctrine of equivalents, by Defendant;

b. Judgment that Defendant account for and pay to Plaintiff all damages to and costs incurred by Plaintiff because of Defendant's infringing activities and other conduct complained of herein;

c. That Plaintiff be granted pre-judgment and post-judgment interest on the damages caused by Defendant's infringing activities and other conduct complained of herein;

d. That Defendant be permanently enjoined from any further activity or conduct that infringes one or more claims of United States Patent No. 7,460,520; and

e. That Plaintiff be granted such other and further relief as the Court may deem just and proper under the circumstances.

May 16, 2018

OF COUNSEL:

David R. Bennett
Direction IP Law
P.O. Box 14184
Chicago, IL 60614-0184
(312) 291-1667
dbennett@directionip.com

STAMOULIS & WEINBLATT LLC

/s/ Stamatios Stamoulis
Stamatios Stamoulis
Two Fox Point Centre
6 Denny Road, Suite 307
Wilmington, DE 19809
(302) 999-1540
stamoulis@swdelaw.com

Attorneys for Plaintiff Mod Stack LLC

CERTIFICATE OF SERVICE

The undersigned certifies that a true and correct copy of the foregoing document was served on all parties who have appeared in this case on May 16, 2018, and who are deemed to have consented to electronic service via the Court's CM/ECF system.

/s/ Stamatios Stamoulis
Stamatios Stamoulis