**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

CUMBERLAND SYSTEMS LLC,
 	
  Plaintiff,
 	
  v.
 	
SIEMENS CORPORATION,
 	
  Defendant.
	CIVIL ACTION NO 6:18-cv-111
	
	JURY TRIAL DEMANDED

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

1.   This is an action for patent infringement in which Cumberland Systems LLC makes the following allegations against Siemens Corporation.

PARTIES

2.   Plaintiff Cumberland Systems LLC ("Plaintiff") is a Texas limited liability company with its principal place of business at 6800 Weiskopf Avenue, Suite 150, McKinney, TX 75070.

3.   On information and belief, Siemens Corporation ("Defendant" or "Siemens") is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in 186 Wood Ave S, Iselin, NJ 08830.

JURISDICTION AND VENUE

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

5.   Venue is proper in this district under 28 U.S.C. §§ 1391(c) and 1400(b). On information and belief, acts of infringement have been committed in this District. Additionally, Siemens has a regular and established place of business in this District, including, without limitation, its Plano location at 5800 Granite Parkway, Suite 600, Plano, TX 75024.

6.   On information and belief, Defendant is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this Judicial District.

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COUNT I

INFRINGEMENT OF U.S. PATENT NO. 8,023,647

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7.   Plaintiff is the owner of United States Patent No. 8,023,647 ("the '647 patent") entitled "Password self encryption method and system and encryption by keys generated from personal secret information." The '647 Patent issued on September 20, 2011. A true and correct copy of the '647 Patent is attached as Exhibit A.

8.   Defendant owns, uses, operates, advertises, controls, sells, and otherwise provides products and/or services that infringe the '647 patent. The '647 patent provides, among other things, " A method comprising: submitting a user identification for a user from a user computer to a server computer; receiving a set of information at the user computer from the server computer, in response to the submission of the user identification for the user; wherein the set of information includes a parameter of a key; and further comprising using the user computer to convert user confidential information to a number x, wherein the number x is dependent on the user confidential information; using the user computer to compute a number e which is a function of x and which is a function of the user confidential information; using the user computer to pad the number x to convert x to X_p; using the user computer to encrypt x_p by using the parameter of the key and the number e to form a cipher C, wherein C is a function of the user confidential information; and submitting the cipher C from the user computer to the server computer."

9.   Defendant directly and/or through intermediaries, made, has made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or services that infringed one or more claims of the '647 patent, including at least Claim 1, in this district and elsewhere in the United States. Particularly, the Defendant's use of Real-Time Innovation's Connext DDS Secure infringes the '647 patent. By making, using, importing, offering for sale,

and/or selling such products and services, and all like products and services, Defendant has injured Plaintiff and is thus liable for infringement of the '647 patent pursuant to 35 U.S.C. § 271.

10.   Based on present information and belief, Siemens submits a user identification for a user from a user computer to a server computer. For example, Siemens employees submit user identification in the form of at least a login username and password from a user computer to a Connext DDS Secure server. An SSL connection begins with an SSL handshake during which the Siemens employees also submit a user identification from the user computer to the server. The user identification is also in the form of at least a Client Hello message including at least a supported cipher suite and/or a session ID. Further, during the SSL handshake if the server sends a Client Certificate Request to the user computer, Siemens employees submit an additional user identification in the form of a SSL Client Certificate from the user computer to the server computer.

11.   Based on present information and belief, Siemens receives a set of information at the user computer, wherein the set of information includes a parameter of a key. For example, Siemens employees install a Connext DDS Secure application on a user computer which is further connected to a server computer over an SSL connection. During the SSL handshake procedure, in response to submission of the Client Hello message and/or SSL Client Certificate, the user computer receives a set of information including a parameter of a key from the server. For example, the user computer receives the selected cipher suite from the server which is a claimed parameter of a key (since the cipher suite is used to derive the key used to encrypt the SSL communications). Further, if any of the Diffie-Hellman based key exchange algorithms such as DHE_RSA, ECDHE_RSA, DH_RSA, DHE_DSS, DH_DSS, ECDH_RSA, ECDH_ECDSA and ECDHE_ECDSA are selected during the SSL handshake, the user computer also receives a public key from the server which is also a claimed parameter of the symmetric key used to encrypt the subsequent SSL communications.

12.   Based on information and belief, Siemens uses a user computer to convert user confidential information to a number x, which is dependent on the user confidential information. For example, Connext DDS Secure encrypts the resources using Advanced Encryption Standard (AES) algorithm which necessarily involves converting the resources (user confidential

information into a numerical representation (claimed number x) which is a function of the resources.

13.   Based on present information and belief, Siemens uses the user computer to compute a number e which is a function of x and which is a function of the user confidential information.   For example, when Siemens employees add a data resource, they use the user computer to apply at least a MixColumns transformation as part of the AES encryption – the AES algorithm computes a series of numbers (claimed number e) from the numerical representation of the resource (claimed x).

14.   Based on present information and belief, Siemens uses the user computer to pad the number x to convert x to xp. For example, when Siemens employees add a data resource, they use the user computer to apply at least a AddRoundKey() transformation to the numerical representation of the resource (claimed number x). The AddRoundKey() includes an XOR transformation which results in a padded representation.

15.   Based on present information and belief, Siemens uses the user computer to encrypt xp by using the parameter of the key and the number e to form a cipher C, wherein C is a function of the user confidential information.   For example, when Siemens employees use Connext DDS Secure on the user computer to store and manage data resources, Connext DDS Secure sends the AES encrypted resource to the server using SSL. As per the SSL protocol, the user computer further encrypts the AES encrypted resource using the symmetric key derived as part of the SSL handshake procedure. Therefore, the user computer encrypts the padded numerical representation of the resource (claimed xp) by using the number e (from the AES encryption process) and the parameter of key (received via the SSL handshake explained above) to form the SSL-encrypted payload (cipher C).

16.   Based on present information and belief, Siemens submits the cipher C from the user computer to the server computer. For example, when Siemens employees use Connext DDS Secure on the user computer to store and manage data resources, Connext DDS Secure application on the user computer submits the SSL payload (containing the resource) to the server.

17.   In the alternative, because the manner of use by Defendant differs in no substantial way from language of the claims, if Defendant is not found to literally infringe, Defendant infringes under the doctrine of equivalents.

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18.   Defendant's aforesaid activities have been without authority and/or license from Plaintiff.

19.   In addition to what is required for pleadings in patent cases, and to the extent any marking was required by 35 U.S.C. § 287, Plaintiff and all predecessors in interest to the '647 Patent complied with all marking requirements under 35 U.S.C. § 287.

20.   Plaintiff is entitled to recover from Defendant the damages sustained by Plaintiff as a result of the Defendant's wrongful acts in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court enter:

1.   A judgment in favor of Plaintiff that Defendant has infringed the '647 Patent;

2.   A judgment and order requiring Defendant to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for Defendant's infringement of the '647 Patent as provided under 35 U.S.C. § 284;

3.   An award to Plaintiff for enhanced damages resulting from the knowing, deliberate, and willful nature of Defendant's prohibited conduct with notice being made at least as early as the date of the filing of this Complaint, as provided under 35 U.S.C. § 284;

4.   A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees; and

5.   Any and all other relief to which Plaintiff may show itself to be entitled.

DEMAND FOR JURY TRIAL

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

Respectfully Submitted,

CUMBERLAND SYSTEMS LLC

/s/ Papool S. Chaudhari

Dated: March 9, 2018   By: _____
                                                          Papool S. Chaudhari
                                                          Texas State Bar No. 24076978

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