### IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

NORTHSTAR SYSTEMS LLC,		)	
	Plaintiff,	)	Case No.
	i iaiiiiii,	)	JURY TRIAL DEMANDED
V.		)	
NEC CORPORATION,		)	
	Defendant.	)	
		)	

### **COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff NorthStar Systems LLC ("NorthStar" or "Plaintiff") for its Complaint against Defendant NEC Corporation ("NEC" or "Defendant") alleges as follows:

### THE PARTIES

- 1. NorthStar is a limited liability company organized and existing under the laws of the State of Texas, with its principal place of business located at 104 E. Houston Street, Marshall, Texas 75670.
- 2. Upon information and belief, NEC is a Japanese corporation with its principal place of business located at 7-1 Shiba 5 Chome Minato-ku Tokyo, 108-8001, Japan. Upon information and belief, NEC does business in Texas and in the Eastern District of Texas, directly or through intermediaries.

### **JURISDICTION**

3. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq*. This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

- 4. This Court has personal jurisdiction over Defendant. Defendant regularly conducts business and has committed acts of patent infringement and/or has induced acts of patent infringement by others in this Judicial District and/or has contributed to patent infringement by others in this Judicial District, the State of Texas, and elsewhere in the United States.
- 5. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391 because, among other things, Defendant is not a resident in the United States, and thus may be sued in any judicial district pursuant to 28 U.S.C. § 1391(c)(3).
- 6. Defendant is subject to this Court's jurisdiction pursuant to due process and/or the Texas Long Arm Statute due at least to its substantial business in this State and Judicial District, including (a) at least part of its past infringing activities, (b) regularly doing or soliciting business in Texas, and/or (c) engaging in persistent conduct and/or deriving substantial revenue from goods and services provided to customers in Texas.

### **PATENTS-IN-SUIT**

- 7. On March 28, 2017, the United States Patent and Trademark Office duly and legally issue U.S. Patent No. 9,609,283 (the "'283 Patent") entitled "Mobile Unit Communication Via A Network". copy of the '283 Patent is available Α true and correct at: http://pdfpiw.uspto.gov/.piw?PageNum=0&docid=9609283.
- 8. On December 18, 2012, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,335,254 (the "'254 Patent") entitled "Advertisements Over a Network". A true and correct copy of the '254 Patent is available at: http://pdfpiw.uspto.gov/.piw?PageNum=0&docid=8335254.
- 9. On April 5, 2011, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,920,626 (the "'626 Patent") entitled "Video Surveillance Visual

Recognition". A true and correct copy of the '626 Patent is available at: http://pdfpiw.uspto.gov/.piw?PageNum=0&docid=7920626.

10. NorthStar is the sole and exclusive owner of all right, title, and interest in the '283 Patent, the '254 Patent, and the '626 Patent (the "Patents-in-Suit") and holds the exclusive right to take all actions necessary to enforce its rights to the Patents-in-Suit, including the filing of this patent infringement lawsuit. NorthStar also has the right to recover all damages for past, present, and future infringement of the Patents-in-Suit and to seek injunctive relief as appropriate under the law.

### **FACTUAL ALLEGATIONS**

- 11. The '283 Patent generally discloses a network system for monitoring remote objects. The '283 Patent discloses systems and methods in which a communicator receives and transmits visual data and recognition software configured to visually recognize and verify visual data. The technology described in the '283 Patent was developed by Dennis Sunga Fernandez and Irene Hu Fernandez.
- 12. The '254 Patent generally discloses a method for monitoring consumers to transmit an unsolicited advertisement. The '254 Patent discloses systems and methods which monitor a consumer attribute, extrapolate predicted future locations, and transmit an unsolicited advertisement. The technology described in the '254 Patent was developed by Dennis Sunga Fernandez and Irene Hu Fernandez.
- 13. The '626 Patent generally discloses a method for using image data to track mobile buyers. The '626 Patent discloses systems and methods for selecting a fixed vendor, recognizing an image of a buyer, and sending a message to the fixed vendor in response to recognizing the

image of a buyer. The technology described in the '626 Patent was developed by Dennis Sunga Fernandez and Irene Hu Fernandez.

- 14. NEC infringed the Patents-in-Suit by making, offering to sell, selling, importing, and/or using facial recognition technology and other biometric technology, such as NEC's NeoFace® facial recognition products, alone or in conjunction with other NEC technology, as well as the NeoFace® Express and the I:Delight, among other products.
- 15. NEC has infringed and is continuing to infringe the Patents-in-Suit by making, using, selling, offering to sell, and/or importing, and by actively inducing others to make, use, sell, offer to sell, and/or importing commercial and personal vehicles, including, but not limited to, personal cars. Upon information and belief, NeoFace® facial recognition system in conjunction with other NEC technology, as well as the NeoFace® Express system and the I:Delight system, among other products, infringe the Patents-In-Suit.

## **COUNT I** (Infringement of the '283 Patent)

- 16. Paragraphs 1 through 15 are incorporated by reference as if fully set forth herein.
- 17. NorthStar has not licensed or otherwise authorized Defendant to make, use, offer for sale, sell, or import any products that embody the inventions of the '283 Patent.
- 18. Defendant directly infringe the '283 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, selling, and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '283 Patent. Such products include, but are not limited to, NEC's NeoFace Watch, Neoface Engage, NeoFace Express system, NEC Enterprise Video Analytics Solutions, and NEC I:Delight system.

- 19. For example, NEC infringes at least claim 20 of the '283 Patent by making, offering to sell, selling, importing, and/or using in the United States facial recognition technology, such as the NEC NeoFace system either on its own or in combination with other NEC technology, such as NeoFace Watch, Neoface Engage, NeoFace Express system, NEC Enterprise Video Analytics Solutions, and NEC I:Delight system.
- 20. For example, upon information and belief, the NeoFace system performs a method wherein it receives, via a network, first visual data from a first mobile unit. The NeoFace system performs the step of receiving, via the network, second visual data from a second mobile unit. The NeoFace system performs the step of visually recognizing a first object of observation associated with the first visual data. The NeoFace system performs the step of visually recognizing a second object of observation associated with the second visual data.

### How It Works

- A camera integrated with NEC's NeoFace Watch biometric technology is installed in suitable pinch points.
- Faces of individuals are captured and extracted from the video feed and quality matched in real-time.
   NeoFace Watch software is able to process multiple camera feeds extracting and matching thousands of faces per minute.

The NeoFace system performs the step of verifying that the first visual data was received from the first object of observation in response to the visually recognizing the first object of observation. The NeoFace system performs the step of verifying that the second visual data was received from the second object of observation in response to the visually recognizing the second object of observation. Upon information and belief, the NeoFace system performs the step of transmitting, via the network, the first visual data to the second mobile unit. Upon information and belief, the NeoFace system performs the step of transmitting, via the network, the second visual data to the

 $<sup>^{1}\</sup> https://www.nec.com/en/global/solutions/biometrics/face/neofacewatch.html.$ 

first mobile unit, to facilitate visual communication between the first mobile unit and the second mobile unit.

- 21. Defendants have and continues to indirectly infringe one or more claims of the '283 Patent by knowingly and intentionally inducing others, including NEC customers and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, selling and/or importing into the United States products that include infringing technology, such as robotic systems using image recognition and/or vision functionality.
- 22. Defendants, with knowledge<sup>2</sup> that these products, or the use thereof, infringe the '283 Patent, knowingly and intentionally induced, and continues to knowingly and intentionally induce, direct infringement of the '283 Patent by providing these products to end users for use in an infringing manner.
- 23. Defendants has and continues to infringe and induce infringement by others, including end users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end users, infringe the '283 Patent, but while remaining willfully blind to the infringement.
- 24. NorthStar has suffered, and will continue to suffer, irreparable harm as a result of Defendants' infringement of the '283 Patent, for which there is no adequate remedy at law, unless Defendants' infringement is enjoined by this Court.

# **COUNT II** (Infringement of the '254 Patent)

25. Paragraphs 1 through 15 are incorporated by reference as if fully set forth herein.

<sup>&</sup>lt;sup>2</sup> NEC cited the '283 Patent family in NEC's own Foreign Patent Application No. JP2001154903A, which was published on June 8, 2001.

- 26. NorthStar has not licensed or otherwise authorized Defendant to make, use, offer for sale, sell, or import any products that embody the inventions of the '254 Patent.
- 27. Defendant has indirectly infringed the '254 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, selling, and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '254 Patent. Upon information and belief, such products include targeted advertisements implementing NEC NeoFace system either on its own or in combination with other NEC technology, such as NeoFace Watch, Neoface Engage, NeoFace Express system, NEC Enterprise Video Analytics Solutions, and NEC I:Delight system.
- 28. For example, Defendant infringed at least claim 1 of the '254 Patent by making, offering to sell, selling, importing, and/or using in the United States NEC NeoFace system, either on its own or in conjunction with other NEC technology, allowing for targeting advertisements in retail locations:

# NEC Showcases Retail and Digital Signage Solutions Integrating POS, Biometrics, Digital Signage, Interactivity, RFID, Omni-Channel, Big Data Capabilities at NRF16

Presenting the 'Face of Retail' through 9 interactive demo stations to show the latest in retail and digital display technologies at the Big Show

January 14, 2016 01:03 PM Eastern Standard Time

IRVING, Texas—(BUSINESS WIRE)--NEC Corporation of America (NEC), a leading technology provider for advanced IT, communications and networking solutions, today announced that it will feature new retail solutions that integrate a wide range of NEC technology, including point of sale (POS), biometrics, digital signage and analytics, during the National Retail Federation's Big Show, Jan. 17-20, 2016, at New York's Jacob K. Javits Convention Center. Visit NEC in **Booth #4143** during the NRF16 EXPO Jan. 17-19.

.@NEC featuring retail tech with POS, biometrics, digital signage, analytics #NRF 2016.



At this year's show, NEC will demonstrate integrated retail offerings combining its retail software and hardware with NEC's biometrics and display technologies. These integrated solutions bring together the best of NEC's retail, biometrics and display capabilities to capture shopper demographics and measure in-store analytics, all while leveraging the importance of in-store marketing and advertising giving retailers the information needed to provide a more personalized shopping experience in their stores. NEC's Stanchion® 3.0

retail suite includes hardware, software and services to enable store managers and staff greater access to data, improved communications and increased productivity within their store environments.

#### 'Face of Retail' offerings incorporate industry-leading biometrics technology

With loss prevention top of mind for retailers, NEC provides a solution that incorporates its industry-leading facial recognition technology in the NeoFace® Watch solution. The solution integrates with video surveillance systems to enhance security by capturing images from surveillance or web cameras and instantaneously matching images against a watch list of individuals, and then pushing notifications to Apple and Android mobile devices in the store instantaneously.

Another biometrics-based solution that NEC will be demonstrating is NeoFace Engage™, which incorporates interactive signage with facial recognition technology. Retailers can benefit by being able to tailor in-store advertising based on age and gender using real-time content to market products and educate shoppers, all while capturing shopper analytics.

NEC will also demonstrate its biometrics intelligence capabilities by showing one of its newest biometrics solutions, Enterprise Video Analytics™ (EVA). This solution focuses on capturing age and gender analytics to track in-store shopper demographics to give retailers information for product and marketing campaigns. NEC will be showing the EVA solution integrated with its new POS during the show.

29. For example, upon information and belief, the NeoFace system, either on its own or in conjunction with other NEC technology, performs a method which includes performing the step of monitoring a consumer via a wireless network coupled to a detector network, wherein a detector in the detector network detects an attribute associated with the consumer. The NeoFace

<sup>&</sup>lt;sup>3</sup> https://www.businesswire.com/news/home/20160114006129/en/NEC-Showcases-Retail-and-Digital-Signage-Solutions-Integrating-POS-Biometrics-Digital-Signage-Interactivity-RFID-Omni-Channel-Big-Data-Capabilities-at-NRF16.

system further performs the step of extrapolating a predicted future location of the consumer based on last stored information associated with the consumer in order to obtain an observation range of the detector network into which the consumer is expected to be moving in the future. The NeoFace system further performs the step of transmitting, in response to the attribute and the extrapolating the predicted future location, an unsolicited advertisement to the consumer, wherein the unsolicited advertisement is a future advertisement associated with a vendor associated with the observation range into which the consumer is expected to be moving in the future.

- 30. Defendant has indirectly infringed one or more claims of the '254 Patent by knowingly and intentionally inducing others, including NEC customers and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, selling, and/or importing into the United States products that include infringing technology.
- 31. Defendant, with knowledge<sup>4</sup> that these products, or the use thereof, infringed the '254 Patent, knowingly and intentionally induced direct infringement of the '254 Patent by providing these products to end-users for use in an infringing manner.
- 32. Defendant induced infringement by others, including end-users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end-users, infringe the '254 Patent.
- 33. NorthStar has suffered damages as a result of Defendant's indirect infringement of the '254 Patent in an amount to be proved at trial.

<sup>&</sup>lt;sup>4</sup> NEC cited to the '254 Patent family in NEC's own foreign patent application JP2001154903A, which was published on June 8, 2001. NEC further cited the '254 Patent family in NEC's U.S. Patent Application No. US20150215742A1, which was published on July 30, 2015, as well as NEC's foreign patent EP3273672B1, which was published on December 30, 2020.

## **COUNT III** (Infringement of the '626 Patent)

- 34. Paragraphs 1 through 15 are incorporated by reference as if fully set forth herein.
- 35. NorthStar has not licensed or otherwise authorized Defendant to make, use, offer for sale, sell, or import any products that embody the inventions of the '626 Patent.
- 36. Defendant has indirectly infringed the '626 Patent, either literally or under the doctrine of equivalents, without authority and in violation of 35 U.S.C. § 271, by making, using, offering to sell, selling, and/or importing into the United States products that satisfy each and every limitation of one or more claims of the '626 Patent. Upon information and belief, such products include
- 37. For example, Defendant directly infringed at least claim 1 of the '626 Patent by making, offering to sell, selling, importing, and/or using in the United States the biometric tracking systems including, but not limited to, the NEC NeoFace system either on its own or in combination with other NEC technology, such as NeoFace Watch, Neoface Engage, NeoFace Express system, NEC Enterprise Video Analytics Solutions, and NEC I:Delight system.
- 38. For example, the NEC NeoFace Express system and the I:Delight system are implemented in various industries, including aviation, to track customers:

### **Solution Overview**

NeoFace Express is a rapid access solution with high throughput capabilities for demanding environments. NEC's highly accurate and scalable NeoFace facial recognition technologies decrease long queues and improve customer experiences by quickly verifying identities and authenticating membership. Locations with entry/exit points, such as airports and seaport boarding gates, border crossings, stadiums and theme parks, all benefit from the speed and precision of NEC's facial recognition capabilities. Customers benefit from seamless experiences from check-in to payment to boarding; while businesses and governments benefit through operational efficiencies, cost savings and increased customer engagement.

Using distributed processing techniques and patent-pending workflows, Neoface Express is a 1:1 and 1:N identity authentication solution for enterprise grade high throughput identity management. These workflows verify identities with facial images in an existing enrollment database or when a face is enrolled during the initial use of a membership.

NEC's high-performance facial recognition technologies are capable of capturing facial images at a variety of angles and in a wide range of lighting conditions, resulting in maximum performance and user experience. Its performance continues to surpass all other facial recognition systems on the market today.\*

#### PROVEN RESULTS:

- •16+ Air Exit Installations Globally
- Customer Satisfaction

User friendly, frictionless touch points for a "curb-to-gate" journey

Convenience

Eliminates need for boarding pass and ID checks\*

Performance Efficiency

Enhanced operational efficiency with increased user experience

### CASESTUDY Delta Air Lines

# Supporting the first curb-to-gate biometric terminal in the U.S.

Delta Air Lines, in partnership with U.S. Customs and Border Protection,
Transportation Security Administration and Hartsfield-Jackson Atlanta International
Airport, has launched the first curb-to-gate biometric terminal in the U.S. at Atlanta's
Terminal F. Travelers going direct to an international destination on Delta or its
partner airlines can now choose to use face recognition technology to check in at
the self-service kiosks, drop bags at the check-in counters, move through the TSA
checkpoint and board a flight at any gate on Concourse F. This new option leverages
NEC's NeoFace Express, which allows rapid identification and real-time screening of
passengers, thus making travel through the airport easier.



Photo taken pre-COVID-19. NEC technology works even with a mask on.

<sup>&</sup>lt;sup>5</sup> https://www.necam.com/docs/?id=6c812b4d-2a12-40ed-9fea-fae81550c7aa.

<sup>&</sup>lt;sup>6</sup> https://www.necam.com/iDelight/assets/eBook NEC iDelight US.pdf.

- 39. For example, upon information and belief, the NEC NeoFace® Express system performs a method comprising the step of selecting a fixed vendor in response to a first transaction message received from a hand-held mobile buyer unit configured to communicate with a network, wherein the hand-held mobile buyer unit comprises a detector to record an image of a buyer. The NEC NeoFace® Express system further performs the step of recognizing the image of the buyer recorded by the detector associated with by comparing the image of the buyer to a stored image of the buyer, wherein a visual analyzer module recognizes the image of the buyer using at least one of neural-based software or adaptive learning software. The NEC NeoFace® Express system further performs the step of sending at least a portion of the first transaction message to the fixed vendor in response to the recognizing the image of the buyer.
- 40. Defendant has indirectly infringed one or more claims of the '626 Patent by knowingly and intentionally inducing others, including NEC customers and end-users, to directly infringe, either literally or under the doctrine of equivalents, by making, using, offering to sell, selling, and/or importing into the United States products that include infringing technology.
- 41. Defendant, with knowledge<sup>7</sup> that these products, or the use thereof, infringed the '626 Patent, knowingly and intentionally induced direct infringement of the '626 Patent by providing these products to end-users for use in an infringing manner.
- 42. Defendant induced infringement by others, including end-users, with the intent to cause infringing acts by others or, in the alternative, with the belief that there was a high probability that others, including end-users, infringe the '626 Patent.

<sup>&</sup>lt;sup>7</sup> NEC cited the '626 Patent family in NEC's own foreign patent application JP2001154903A, which was published on June 8, 2001. NEC further cited the '626 Patent family in NEC's U.S. Patent Application No. US20150215742A1, which was published on July 30, 2015, as well as NEC's foreign patent EP3273672B1, which was published on December 30, 2020.

43. NorthStar has suffered damages as a result of Defendant's indirect infringement of

the '626 Patent in an amount to be proved at trial.

**DEMAND FOR JURY TRIAL** 

Plaintiff hereby demands a jury for all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, NorthStar prays for relief against Defendant as follows:

a. Entry of judgment declaring that Defendant has directly and/or indirectly infringed

one or more claims of the Patents-in-Suit;

b. An order pursuant to 35 U.S.C. § 283 permanently enjoining Defendant, its

officers, agents, servants, employees, attorneys, and those persons in active concert or

participation with them, from further acts of infringement of the Patents-in-Suit;

c. An order awarding damages sufficient to compensate NorthStar for Defendant's

infringement of the Patents-in-Suit, but in no event less than a reasonable royalty, together with

interest and costs;

d. Entry of judgment declaring that this case is exceptional and awarding NorthStar

its costs and reasonable attorney fees under 35 U.S.C. § 285; and

e. Such other and further relief as the Court deems just and proper.

Dated: August 19, 2022

Respectfully submitted,

/s/ Vincent J. Rubino, III

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