

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of:	Kuo et al.	
U.S. Patent No.:	RE47,842	Attorney Docket No.: 52472-0005IP1
Issue Date:	February 4, 2020	
Appl. Serial No.:	16/218,841	
Filing Date:	December 13, 2018	
Title:	SYSTEM AND METHOD OF IDENTIFYING NETWORKED DEVICE FOR ESTABLISHING A P2P CONNECTION	

DECLARATION OF VLAD KARDASHOV

I, Vlad Karashov, declare that:

1. I am over the age of 18, have personal knowledge of the facts set forth herein, and am competent to testify to the same.
2. I am currently employed as the President of iENSO Inc. and also CEO at Tigers Business Consulting Inc. in Thornhill, Ontario. I have been employed with iENSO Inc. for the past three years and employed with Tigers Business Consulting Inc. for more than three years. Part of my consulting work includes engineering and product development for security systems, including the interconnectivity of smartphones to IP cameras, and I have worked in the in engineering and product development for security systems for more than twelve years.
3. From 2012 to 2016, I was employed as the Director of Engineering & Product Development at Lorex Technology, Inc. (acquired by FLIR Systems, Inc. in 2012), which produced of a variety of networked camera systems, including the

Lorex LNC100 Series of IP camera that provided a direct P2P connection to a user's smartphone via the Lorex Ping mobile app. My work at Lorex Technology included managing the product design of the Lorex IP cameras and networked products, managing the cloud team that was responsible for Lorex Technologies cloud-based services (including the network server system for establishing the direct P2P connectivity of each IP camera to a respective user's smartphone using the Lorex Ping app and Lorex Technology's hole-punching server process), and managing the mobile app development (including the Lorex Ping app). Due to my responsibilities as a Project Lead and IP Products Line Manager, I had personal knowledge of, and was highly familiar with, the Lorex LNC100 Series of IP cameras, the Lorex Ping app, the network server system, and all of the instructions/user guides/literature/how-to videos that were published by Lorex Technology during 2012 and later.

4. From 2016 to 2020, I served as Vice President (Engineering) at FLIR Systems, Inc., serving in FLIR's security division (again, FLIR Systems had previously acquired Lorex Technology). During that time, I continued to manage Lorex Technology (engineering and product development) and also FLIR Security research and design. In 2018, FLIR Systems, Inc. sold Lorex Technology to Dahua Technology, and my role stayed with FLIR Systems, Inc. at that time.

5. Based on my employment as the Director of Engineering & Product Development at Lorex Technology, I have personal knowledge of the LNC100 Series IP camera, the Lorex Ping app, and the documentation related to these products, such as marketing materials, user guides, and other publications that Lorex Technology published in 2012—all of which were publicly disseminated with the intention of sharing with as many customers and potential customers as feasible in 2012. Particular examples of such 2012 publications for which I have personal knowledge include:

- Lorex LNC100 Series User's Guide Version 2.0 (2012), *available at* https://www.lorextechnology.com/downloads/ip-cameras/LNC104/LNC100_SERIES_MANUAL_EN_R2_web.pdf (also referred to herein as Exhibit 1006).
- Lorex Technology Inc., "How-To Set Up and Connect The NEW Lorex LNC100 Series IP Network Camera" (October 19, 2012), *available at* <https://www.youtube.com/watch?v=DPaIWj2f65I> (also referred to herein as Exhibit 1008).
- Lorex Technology Inc., "How-To Get to know new Lorex IP Wireless Network Camera" (October 5, 2012), *available at* <https://www.youtube.com/watch?v=g9U-xhOk8kQ> (also referred to herein as Exhibit 1009).
- Lorex Technology Inc., "How to set up wireless network cameras using QR codes" (November 23, 2012), *available at* <https://www.youtube.com/watch?v=HzJfkqg2VWY> (also referred to herein as Exhibit 1010).

6. I particularly recall the LNC100 Series IP Camera and these four publications listed above for several reasons. First, the LNC100 Series became one of Lorex Technology's top selling products in the U.S. in 2012, and I was particularly

happy that my team won an industry innovation award in January 2013 (of which I have this photo from January 2013):

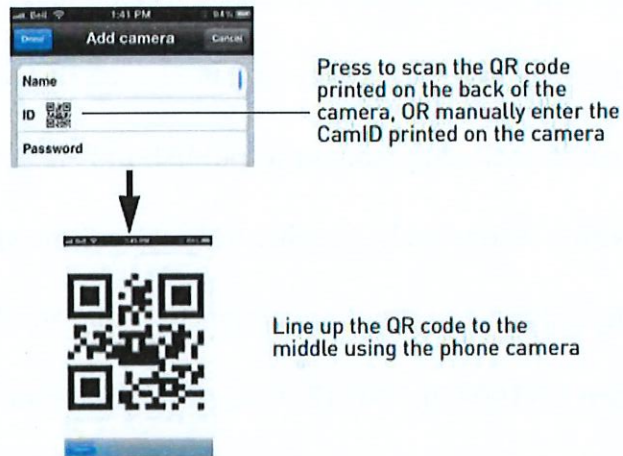


Therefore, the LNC100 Series IP Camera (in combination with the Lorex Ping app) was one of the more successful product launches I was involved with during my role at Lorex Technology.

7. Second, the LNC100 Series IP Camera and its interconnectivity with the Lorex Ping app included new features, in particular, a rapid and improved connection process for achieving a direct point-to-point connection between a user's smartphone (having the Lorex Ping app) and the Lorex LNC100 Series IP camera (having the QR code printed on the backside). As demonstrated in each of the Lorex's User's Guide (Exhibit 1006) and the Lorex video (for example, Exhibit 1008), the rapid and improved camera onboarding and connection-to-network process was achieved

simply by using the Lorex Ping app (on the user's smartphone) to capture the QR code printed on the back of the selected LNC100 Series IP camera:

5. Under **ID**, press the QR code button () and line up the QR code printed on the back of the camera using the camera on the phone. The CamID will automatically be entered.



See EX1006, 29-30. From there, the user would input the password (“lorex” was the default password) and press “Done” to transmit the connection information for the hole-punching server to establish the direct point-to-point connection with between the smartphone and the IP camera. Nothing further was needed from the user. See EX1006, 29-30; EX1008, 1:00-1:37. There was no need for the user to have any networking knowledge or skills (which was often required in older systems), and the point-to-point connection was established without requiring the user to point the IP camera at the smartphone to capture any image of the user’s smartphone (or otherwise input information at the IP camera). See EX1008, 1:00-1:37 (“once that happens ... here it is”); EX1006, 29-30. The simplicity was noticed

by customers and others in the industry. I particularly recall that the introduction of this technology in 2012 significantly reduced the duration of customer support calls to Lorex's helpline.

8. Third, myself and other leaders at Lorex Technology in 2012 expressly believed that the LNC100 Series IP Camera (and the Lorex Ping app) would be a hit with consumers, so we intentionally sought to publish the "how to" video (Exhibit 1008, cited above) with a "stopwatch" graphic to highlight the simplistic and rapid nature of establishing a point-to-point connection between the IP camera and the user's smartphone. *See* EX1008, 0:13-0:18 ("we're going to time it, right here"). In our view at the time, it was a success, with thousands of views on Youtube in 2012, which we believed led to many sales of the product in that year. I particularly recall that, based upon my personal knowledge at the time, the high amount of viewership of this video was consistent with the fact that the LNC100 Series camera sold successfully in the U.S. and Canada through leading retail channels in 2012, such as Costco, Amazon.com, BestBuy, and the like.

9. Regarding the Lorex User's Guide (EX1006), I have personally reviewed the PDF copy (Exhibit 1006) and downloaded it from the Lorex Technology website (https://www.lorextechnology.com/downloads/ip-cameras/LNC104/LNC100_SERIES_MANUAL_EN_R2_web.pdf). Again, I am familiar with the Lorex User's Guide for the reasons detailed above and due to my personal

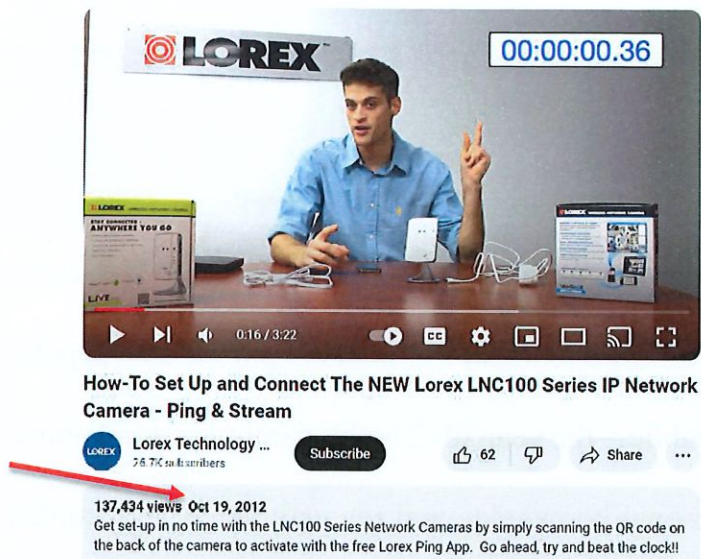
experience in a reviewing and approving it for publication in 2012. I note that the Lorex User's Guide include the copyright date "© 2012" on its final page:



See EX1006, 177. It was Lorex Technology's ordinary and customary business practice to list the year the document was actually published and publicly distributed to members of the public—the year 2012 in this example shown above. Additionally, based upon my personal knowledge and my estimation in accordance with Lorex Technology's product sales, this Lorex User's Guide (Exhibit 1006) was publicly distributed to thousands of people in the U.S. and Canada during 2012—including the customers that purchased the Lorex LNC100 Series IP camera and the members of the public that downloaded copies of the Lorex User's Guide (Exhibit 1006) freely from the Lorex Technology's web site.

10. Regarding the Lorex video entitled "How-To Set Up and Connect The NEW Lorex LNC100 Series IP Network Camera" (Exhibit 1008), I have personally downloaded and viewed it from the publicly available Youtube link (<https://www.youtube.com/watch?v=DPaIWj2f65I>). Again, I am familiar with this Lorex Video for the reasons detailed above and due to my personal experience in a

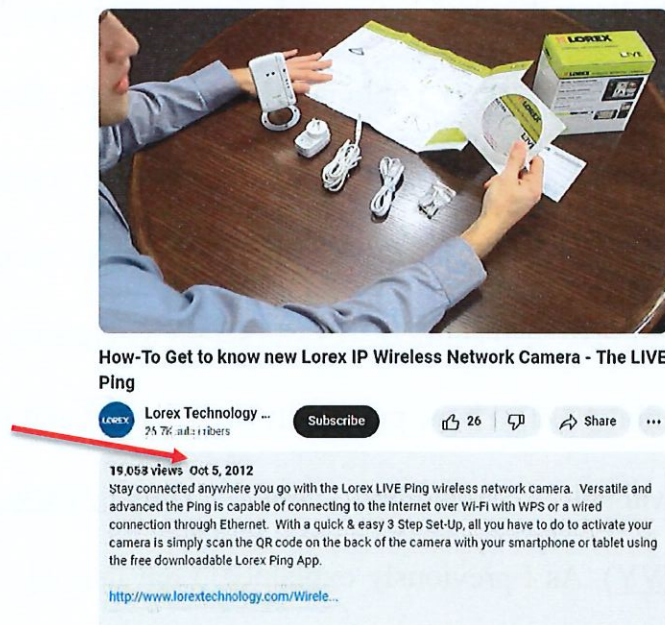
reviewing and approving it for publication in 2012. I note that this Lorex video accurately indicates it was published in 2012:



See EX1008 (arrow added). Based upon my personal knowledge detailed above, I recall that this Lorex video was indeed uploaded to Youtube in October 2012 and was actively and intentionally shared from Lorex's support team and sales team to members of the public throughout 2012 and beyond. Additionally, I recall this Lorex video was publicly accessible in 2012 using typical search strings in Youtube such as searches for "Lorex Technology" (ordinary customers of the Lorex products seeking these "how to" videos) or for "IP Camera + QR code + Lorex Ping." See EX1008 (showing the author as "Lorex Technology" and the description field reciting "set-up in no time with the LNC100 Series Network Cameras by simply scanning the QR code on the back of the camera to activate with the free Lorex Ping App. Go ahead, try and beat the clock!!"). Finally, based upon my access and my role at Lorex Technology during this

time, I have personal knowledge that this Lorex video (Exhibit 1008) was publicly disseminated during 2012 to thousands of people and indeed received thousands of “views” on Youtube during Q4 2012 and Q1 2013 (the timeframe before April 2013).

11. Regarding the Lorex video entitled “How-To Get to know new Lorex IP Wireless Network Camera - The LIVE Ping” (Exhibit 1009), I have personally downloaded and viewed it from the publicly available Youtube link (<https://www.youtube.com/watch?v=g9U-xhOk8kQ>). For reasons I explained above, I am familiar with this second Lorex Video due to my personal experience in a reviewing and approving it for publication in 2012. I note that this second Lorex video accurately indicates it was published in 2012:



See EX1009 (arrow added). Based upon my personal knowledge detailed above, I recall that this second Lorex video was indeed uploaded to Youtube in October 2012

and was actively and intentionally shared from Lorex's support team and sales team to members of the public throughout 2012 and beyond. Additionally, I recall this second Lorex video was publicly accessible in 2012 using typical search strings in Youtube such as searches for "Lorex Technology" (ordinary customers of the Lorex products seeking these "how to" videos) or for "IP Camera + QR code + Lorex Ping." See EX1009 (showing the author as "Lorex Technology," the title including the phrase "new Lorex IP Wireless Network Camera," and the description field reciting "ith a quick & easy 3 Step Set-Up, all you have to do to activate your camera is simply scan the QR code on the back of the camera with your smartphone or tablet using the free downloadable Lorex Ping App"). Finally, based upon my access and my role at Lorex Technology during this time, I have personal knowledge that this second Lorex video (Exhibit 1009) publicly disseminated to hundreds, if not thousands, of people during 2012 and indeed received at least many hundreds of "views" on Youtube during Q4 2012 and Q1 2013 (the timeframe before April 2013).

12. Regarding the Lorex video entitled "How to set up wireless network cameras using QR codes" (Exhibit 1010), I have personally downloaded and viewed it from the publicly available Youtube link (<https://www.youtube.com/watch?v=HzJfkqg2VWY>). As I previously explained, I am familiar with this third Lorex Video due to my personal experience in a reviewing and approving it for

publication in 2012. I note that this third Lorex video accurately indicates it was published in 2012:



See EX1010 (arrow added). Based upon my personal knowledge detailed above, I recall that this third Lorex video was indeed uploaded to Youtube in November 2012 and was actively and intentionally shared from Lorex's support team and sales team to members of the public throughout 2012 and beyond. Additionally, I recall this third Lorex video was publicly accessible in 2012 using typical search strings in Youtube such as searches for "Lorex Technology" (ordinary customers of the Lorex products seeking these "how to" videos) or for "IP Camera + QR code + Lorex Ping." See EX1010 (showing the author as "Lorex Technology" and the title of "How to set up wireless network cameras using QR codes"). Finally, based upon my access and my role at Lorex Technology during this time, I have personal knowledge that

this third Lorex video (Exhibit 1010) publicly disseminated to hundreds, if not thousands, of people during 2012 and indeed received at least many hundreds of “views” on Youtube during Q4 2012 and Q1 2013 (the timeframe before April 2013).

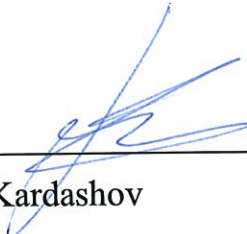
13. Finally, I have been informed that the U.S. Patent No. RE47,842 lists four people as the named inventors:

 US00RE47842E	
(19) United States (12) Reissued Patent Kuo et al.	(10) Patent Number: US RE47,842 E (45) Date of Reissued Patent: Feb. 4, 2020
(54) SYSTEM AND METHOD OF IDENTIFYING NETWORKED DEVICE FOR ESTABLISHING A P2P CONNECTION	
(71) Applicant: THROUGHTTEK CO., LTD, Taipei (TW) (72) Inventors: Chi-Ming Kuo, Taipei (TW); Yu-Li Kao, Taipei (TW); Chien-Chih Yang, Taipei (TW); Sheng-Fu Chang, Taipei (TW) (73) Assignee: THROUGHTTEK CO., LTD, Taipei (TW)	(52) U.S. CL. CPC H04L 12/4625 (2013.01); H04N 5/23206 (2013.01); H04N 21/23418 (2013.01); H04N 21/25858 (2013.01); H04N 21/4108 (2013.01); H04N 21/4222 (2013.01); H04N 21/4223 (2013.01); H04N 21/4227 (2013.01); H04W 76/14 (2018.02); G09G 2370/022 (2013.01); G09G 2370/16 (2013.01) (58) Field of Classification Search CPC H04N 5/23206; H04N 21/23418; H04N 21/25858; H04N 21/4222; H04N 21/4223; H04N 21/4227; H04N 21/4108; H04L 12/4625; H04W 76/14; G09G 2370/022; G09G 2370/16 See application file for complete search history.

I confirm here that the subject matter disclosed in the 2012 Lorex publications (cited above in ¶¶5-12) was not obtained directly or indirectly from any of these four named inventors. To be clear, we did not obtain the subject matter disclosed in these 2012 Lorex publications, directly or indirectly, from any employees/publications of Throughtex Co. Ltd. Based upon my experience and personal knowledge, I confirm that the subject matter disclosed in these 2012 Lorex publications was generated by my team at Lorex Technology as a result of our internal efforts to independently develop the successful Lorex system detailed above (the LNC100 Series IP Camera and the Lorex Ping app).

14. I hereby declare that all statements made are of my own knowledge, are true and that all statements made on information and belief are believed to be true. I further declare that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this proceeding.

Date: 10 Jan 2024

By: 
Vlad Kardashov