CETECOM™

FCC Class II Permissive Change Evaluation Report

FOR:

Ring, Inc.

Model Name:
Video Doorbell 2

Product Description:
Doorbell

FCC ID: 2AEUPBHARG041

Applied Rules and Standards:
KDB 178919 D01 Permission Change Policy v06

REPORT#: EMC_RING_014_18001

ilac-MRA

A2LA ACCREDITED TESTING LABORATORY Certificate #2135.01

A2LA Accredited

IC recognized # 3462B-1

CETECOM **Inc.**

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1   <u>Assessment</u>

The following device was evaluated against the applicable criteria specified in FCC KDB 178919 D01 Permission Change Policy v06.

It has been verified that the device behaves as specified in the "FCC doc for Europe setup" and cannot be operated on channels and powers prohibited in USA/Canada.

Company	Description	Model #
Ring, Inc.	Door Bell	Video Doorbell 2

Responsible for Testing Laboratory:

Dr. Peter Nevermann

03/08/2018	Compliance	(Director RC&E)	
Date	**Section**	**Name**	**Signature**

Responsible for the Report:

Joseph Pacheco

03/08/2018	Compliance	(Technician)	
Date	**Section**	**Name**	**Signature**

2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the EMC Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Street Address:	411 Dixon Landing Road
City/Zip Code	Milpitas, CA 95035
Country	USA
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
Lab Manager:	James Donnellan
Responsible Project Leader:	Laith Saman

2.2 Identification of Client

Applicant's Name:	Ring, Inc.
Street Address:	1523 26th Street
City/Zip Code	Santa Monica, CA 90404
Country	USA
Contact Person:	Spiro Sacre
Phone No.	540-724-1444
e-mail:	spiro@ring.com

2.3 Identification of Manufacturer

Manufacturer's Name:	Same as Applicant
Manufacturers Address:	------------------
City/Zip Code	------------------
Country	------------------

3 Equipment Under Test (EUT)

3.1 EUT Specifications

Model No	Video Doorbell 2
HW Version	Video Doorbell 2
SW Version	NA
FCC-ID:	2AEUPBHARG041
IC-ID:	20271-BHARG041
FWIN:	NA
HVIN:	NA
PMN:	NA
Product Description	Doorbell
Frequency Range / number of channels:	2412-2462 1-11 Channels US and 1-13 in Europe
Type(s) of Modulation:	DSSS and OFDM
Modes of Operation:	AP Mode for Setup / Station mode all other times
Antenna Information as declared:	PIFA Antenna
Max. Output Power From Report #: BTL-FCCP-1-1703117	19.24dBm
Power Supply/ Rated Operating Voltage Range:	Battery powered by 6000mAh Li-Ion battery
Operating Temperature Range	-20 to + 50C
Other Radios included in the device:	N/A
Sample Revision	☐Prototype Unit; ■Production Unit; ☐ Pre-Production
EUT Dimensions	5.05" x 2.50" x 1.08" (12.83cm x 6.35cm x 2.74cm)

3.2 EUT Sample Details

EUT #	Serial Number	HW Version	SW Version	Notes/Comments
1	BHRG44717LH005033			------------------

4   <u>History</u>

Date	Report Name	Changes to report	Report prepared by
03/08/2018	EMC_RING_014_18001	Initial Version	Josephine Mena

5 Initial Setup and Channel Selection
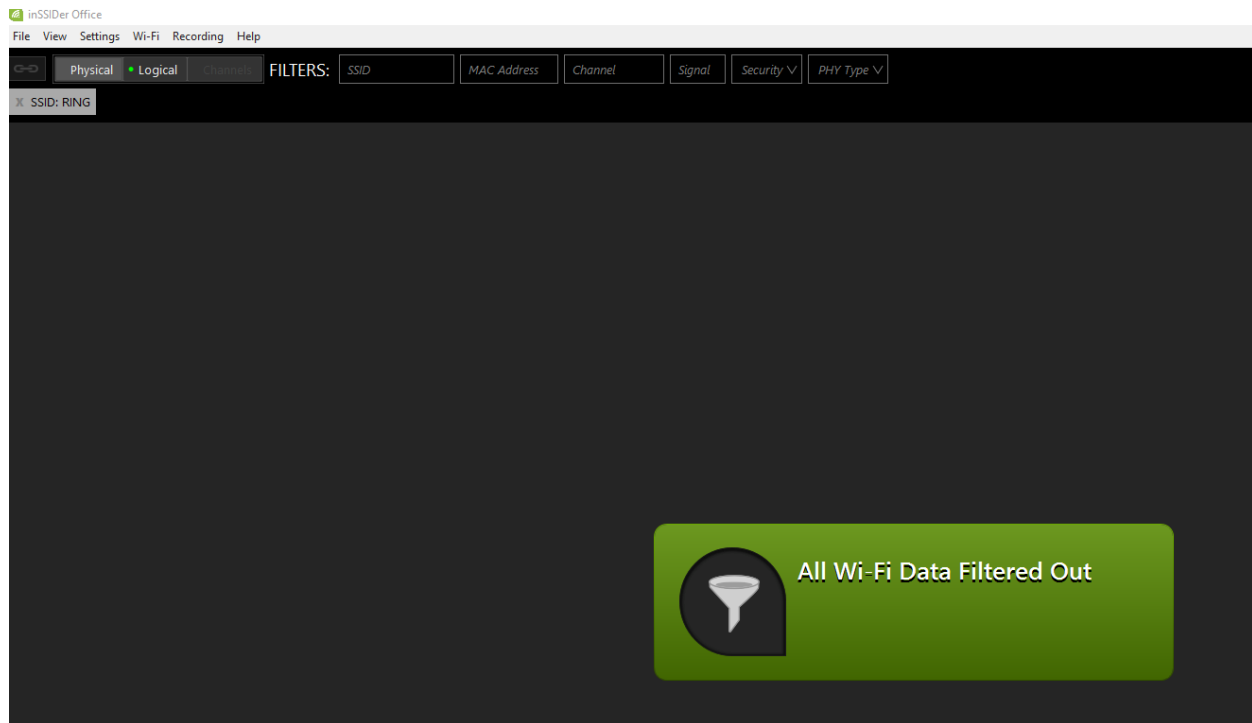
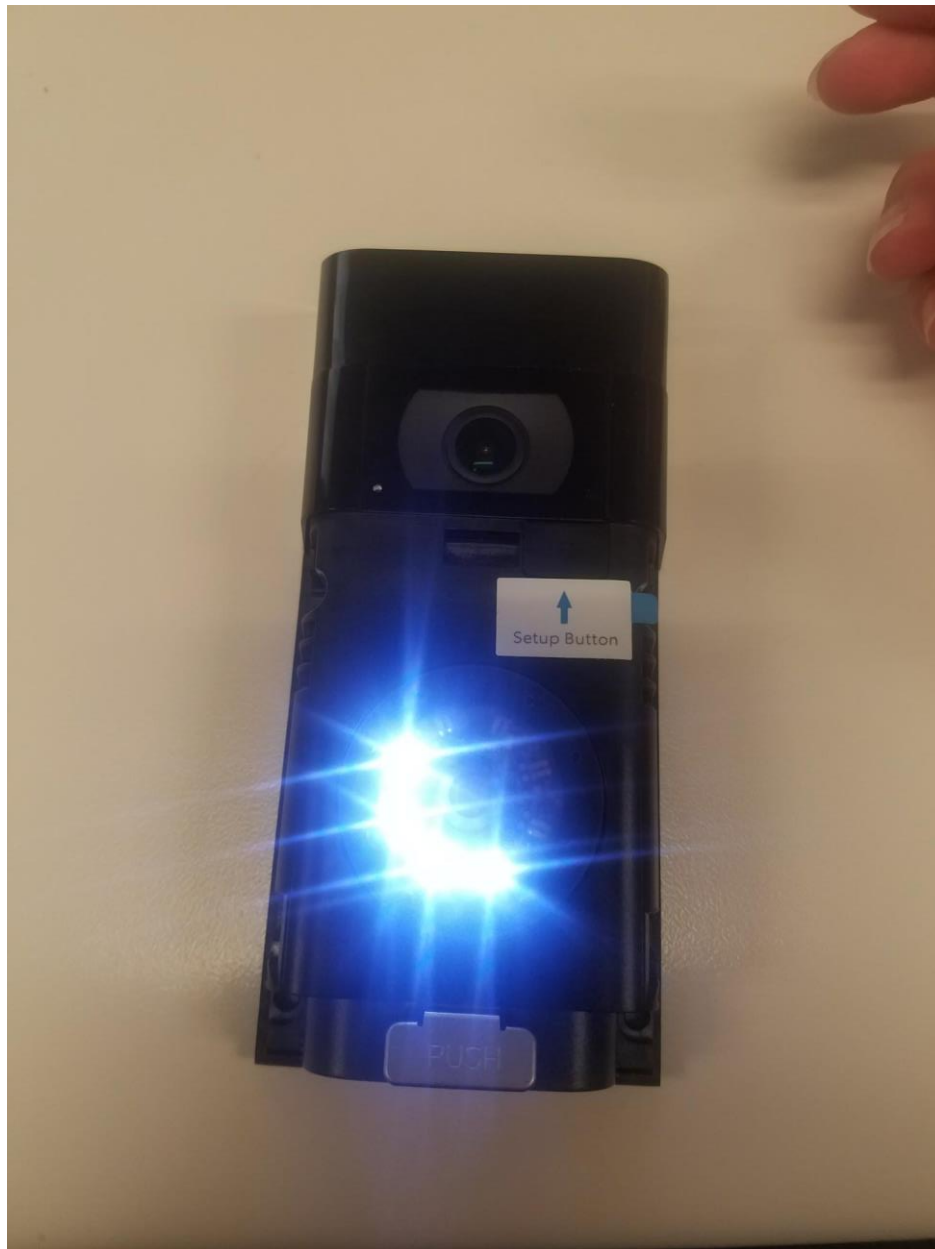### 5.1 Ring Device without battery

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5.1 Ring Device with Battery
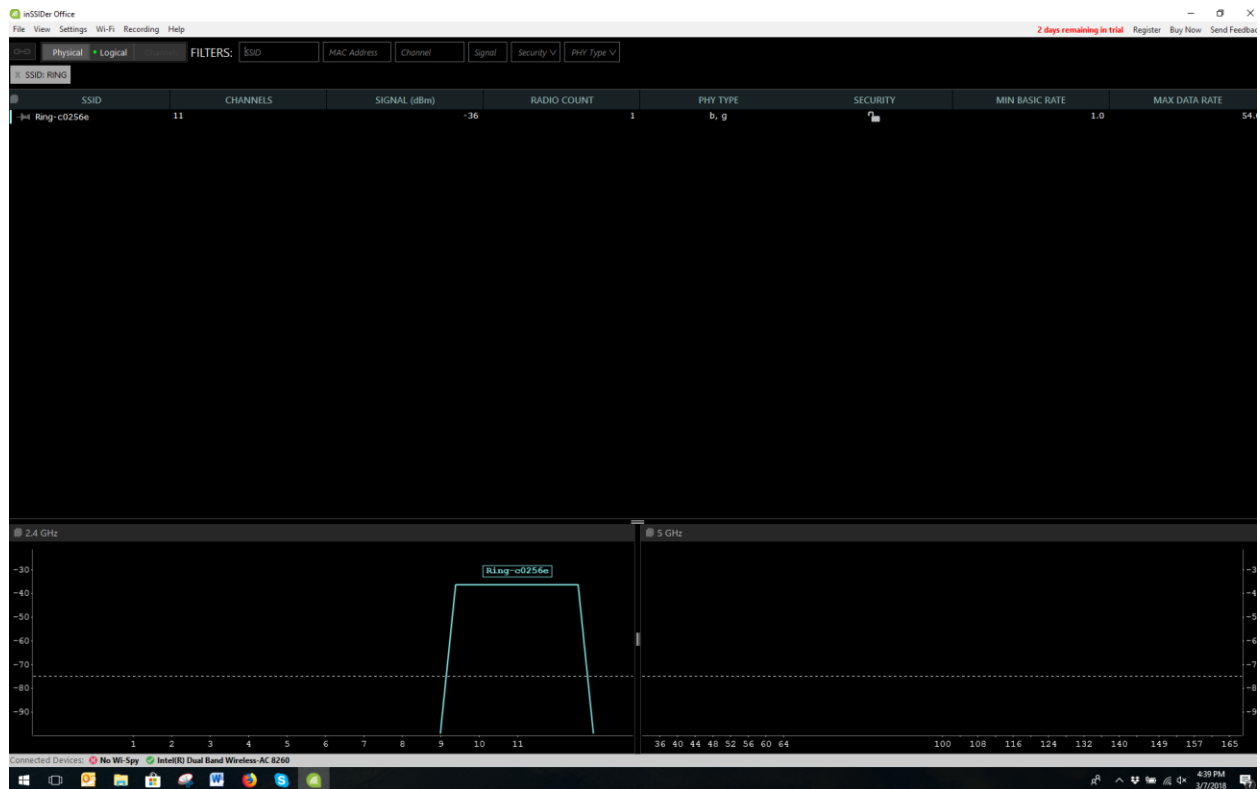
5.2   WiFi Analyzer inSSIDer filtered for search of RING Network

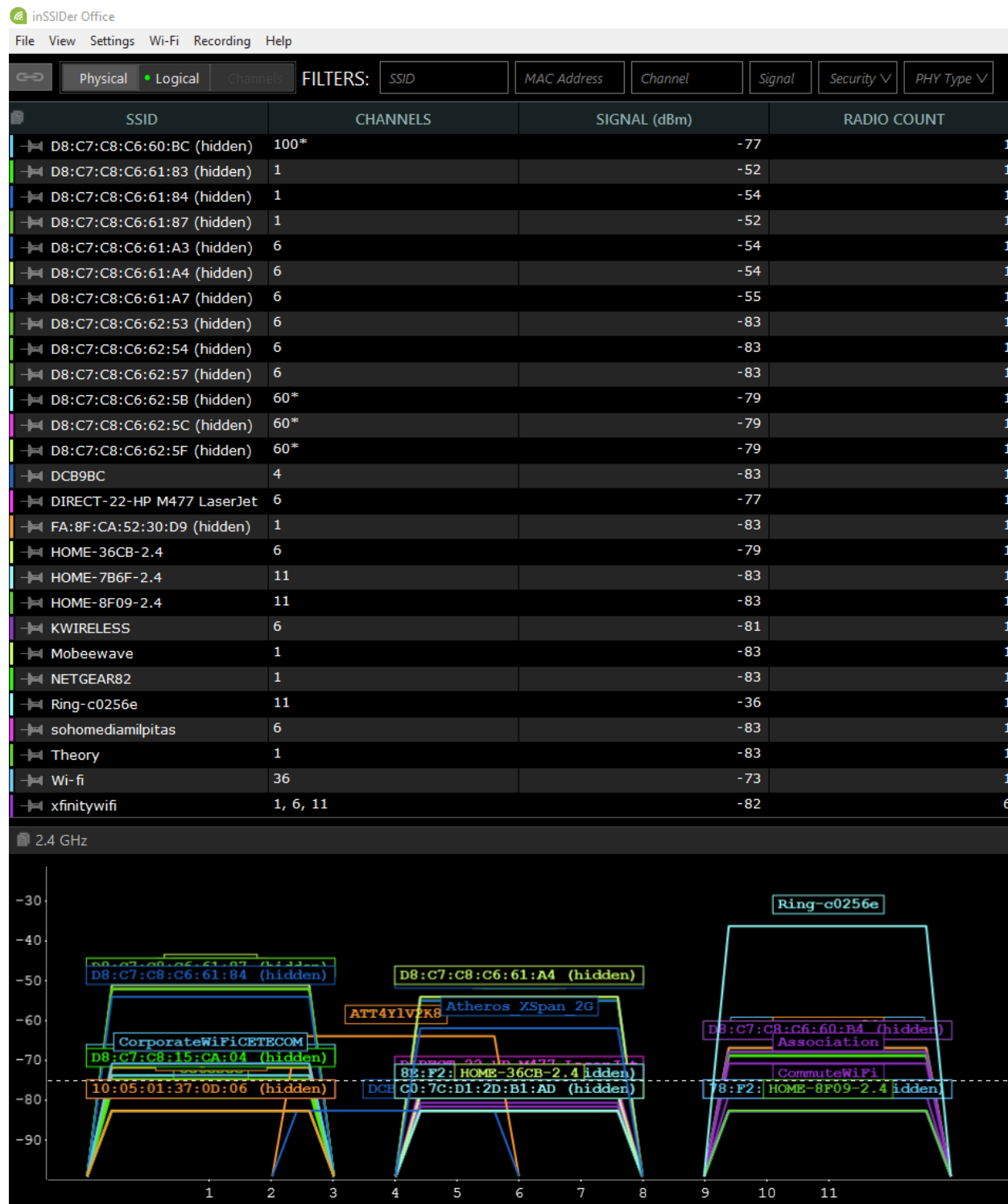## 5.3 Ring Device Solid Light indicating ready to initiate setup

5.4   Ring Device Flashing Lights indicating Transmission

5.5 Ring Network appears on inSSIDer Network Analyzer

5.6 Power cycled Ring Device and followed steps to initiate transmission

6   Setup on Channel 3

6.1   ASUS AP on channel 3

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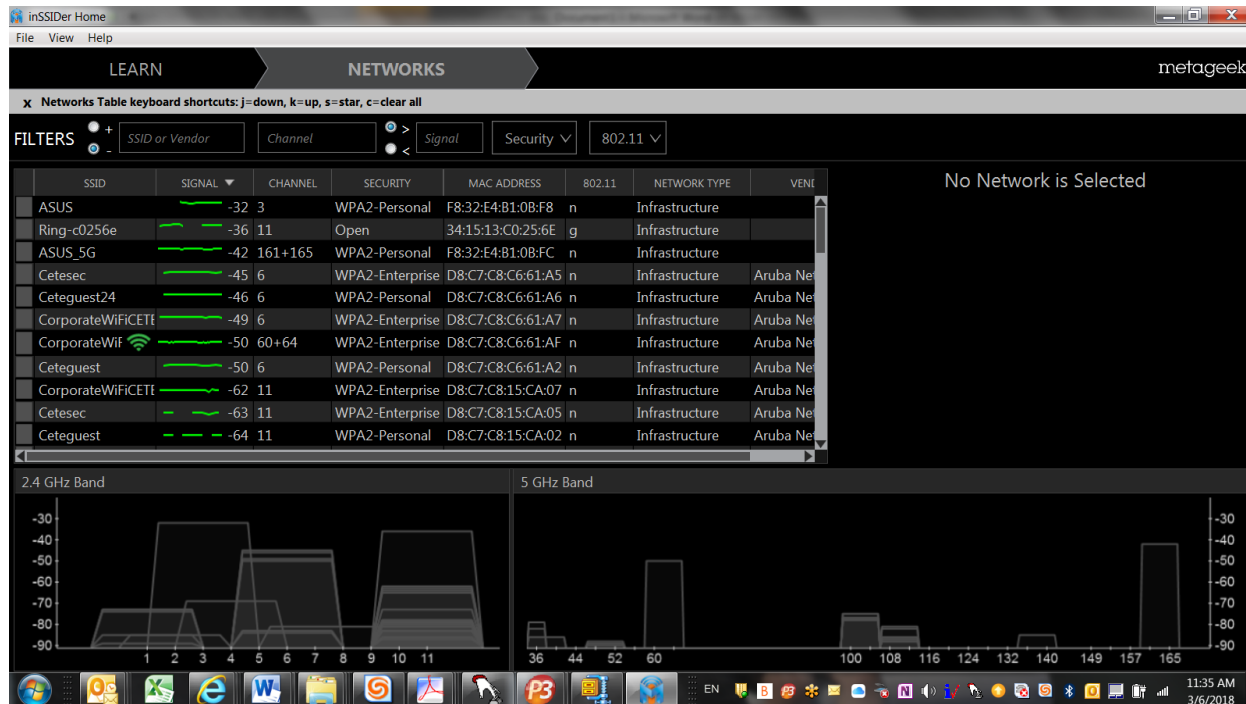
6.1 Connecting to RING SSID
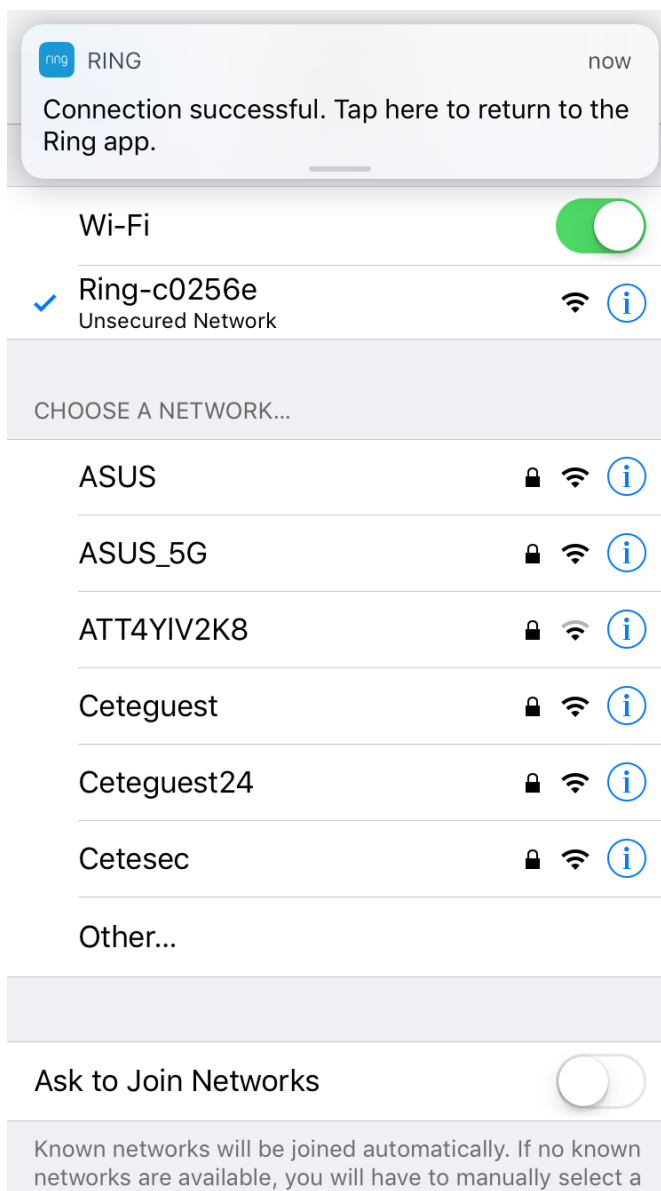
6.1   Selection of ASUS SSID on channel 3
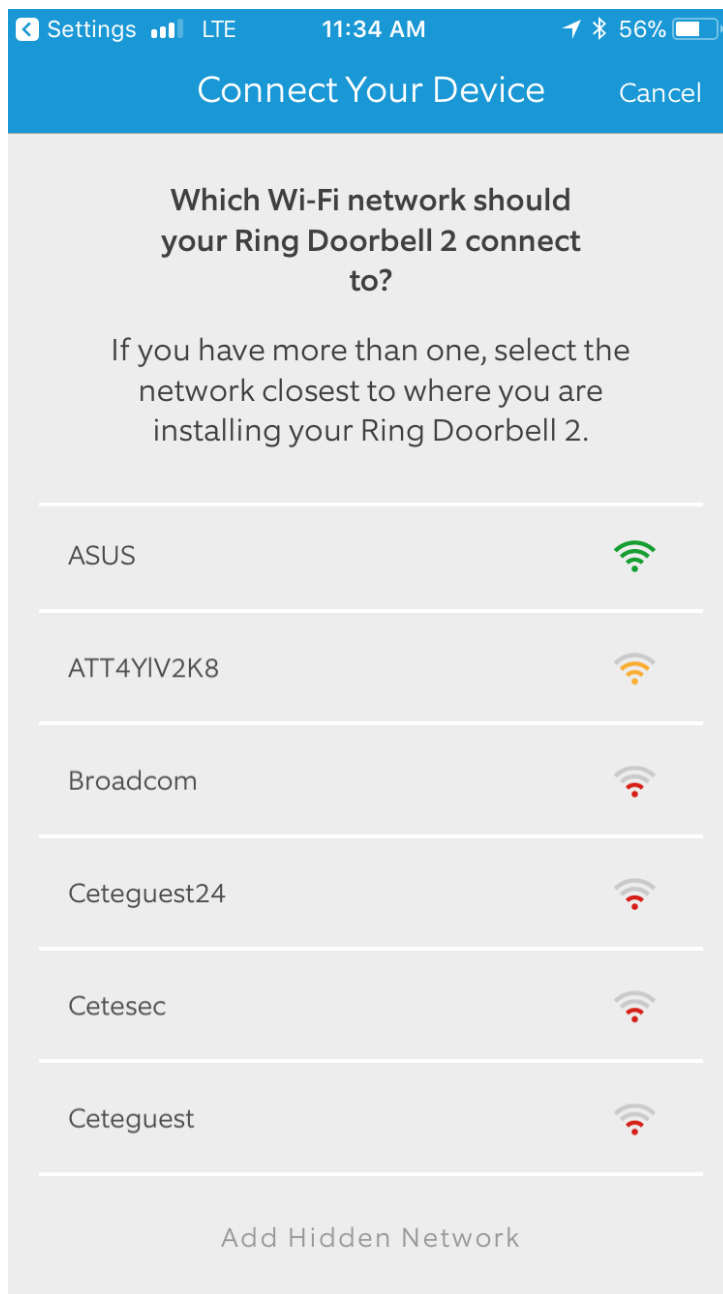
6.1   Enter credentials for ASUS on channel 3

6.1   Setup complete on channel 3
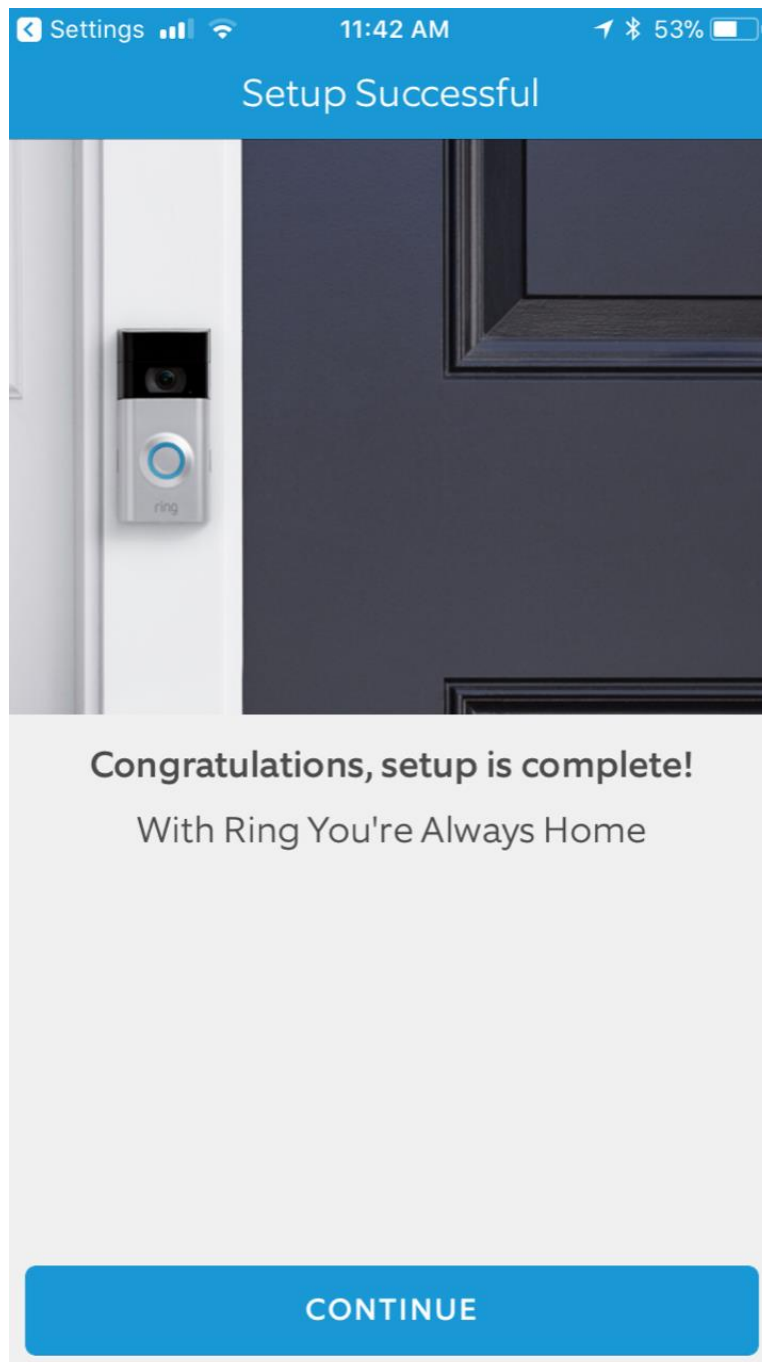
6.1   Product working on channel 3
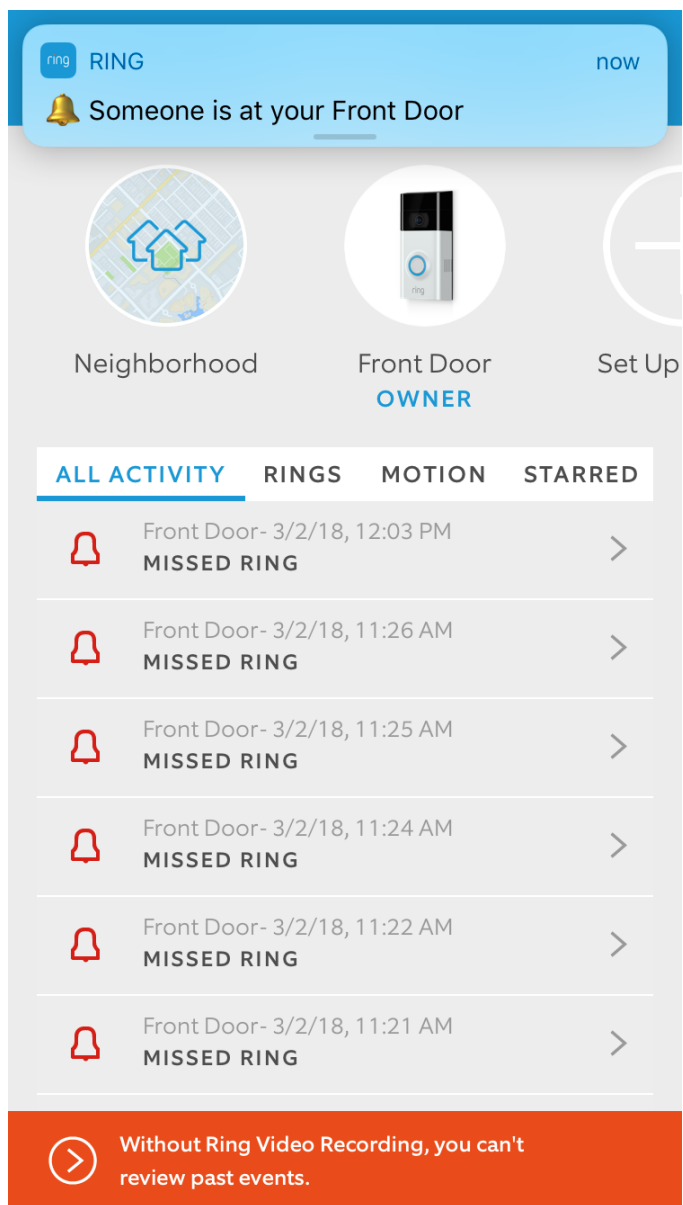
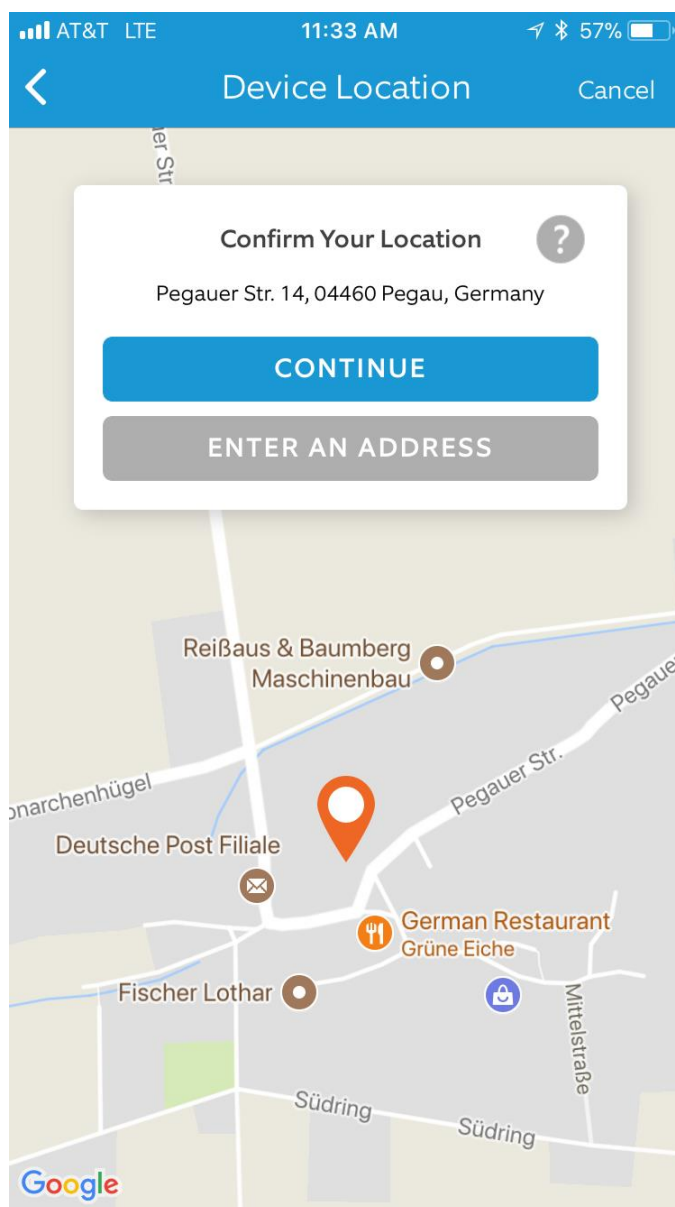# 7 Setup on Channel 13

7.1 ASUS AP on channel 13
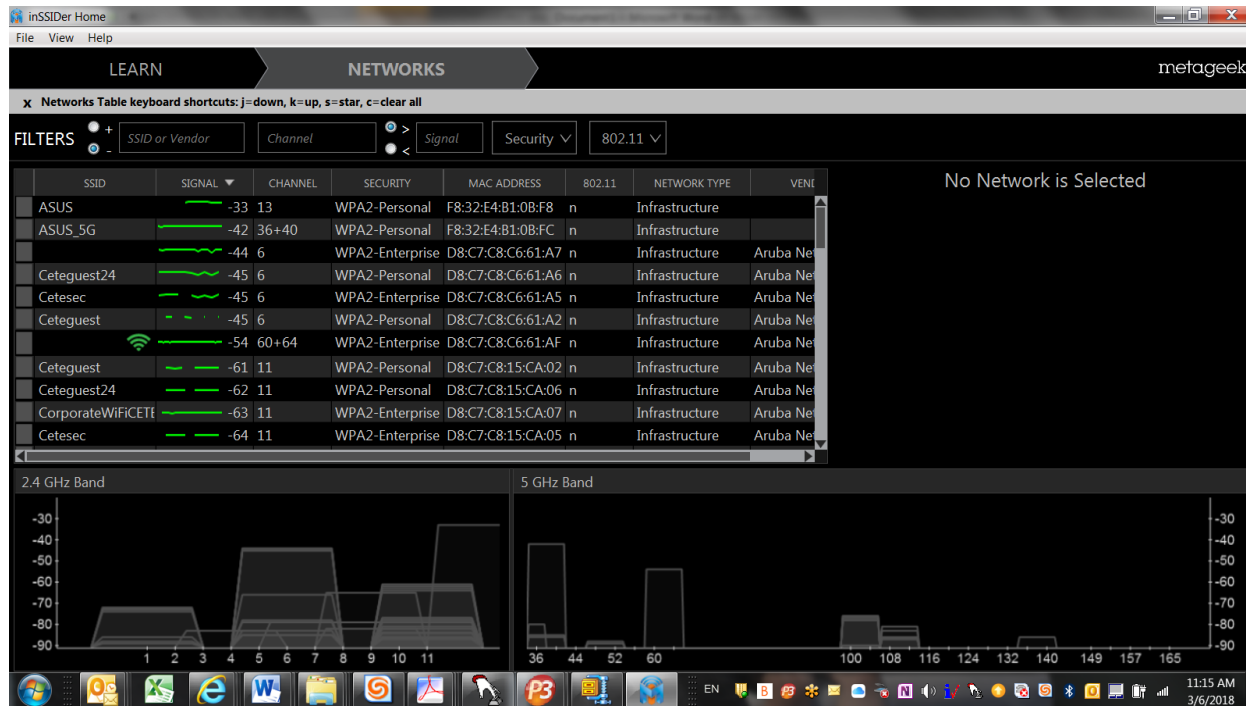
7.2   Selection of ASUS SSID on channel 13 not possible part 1
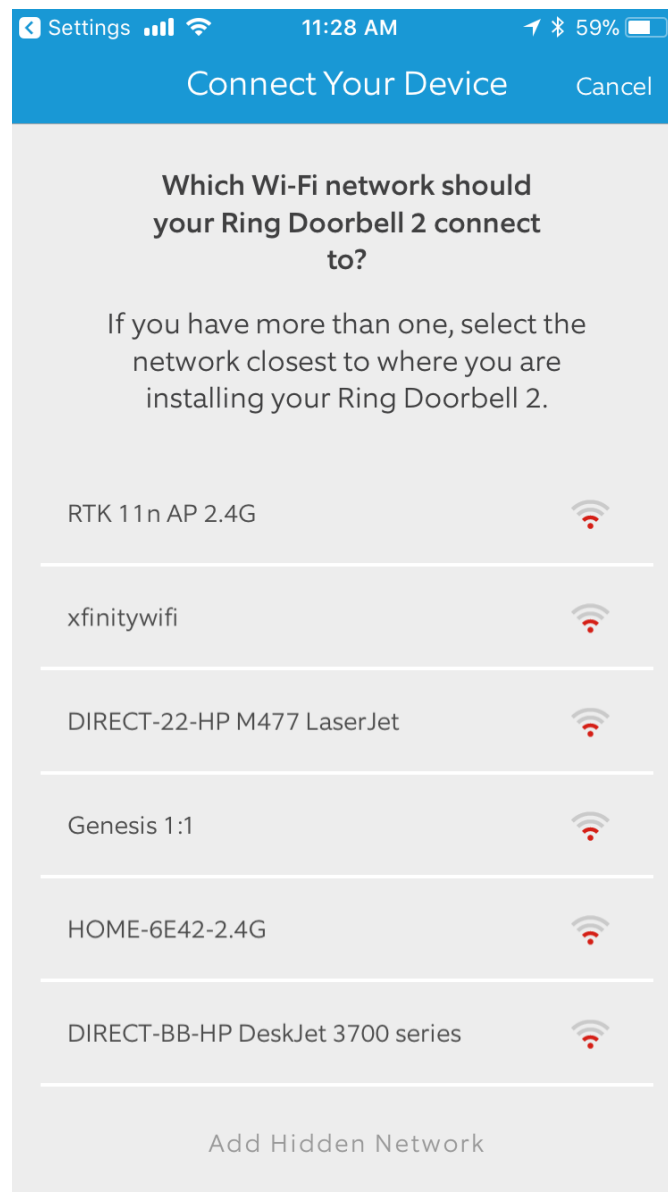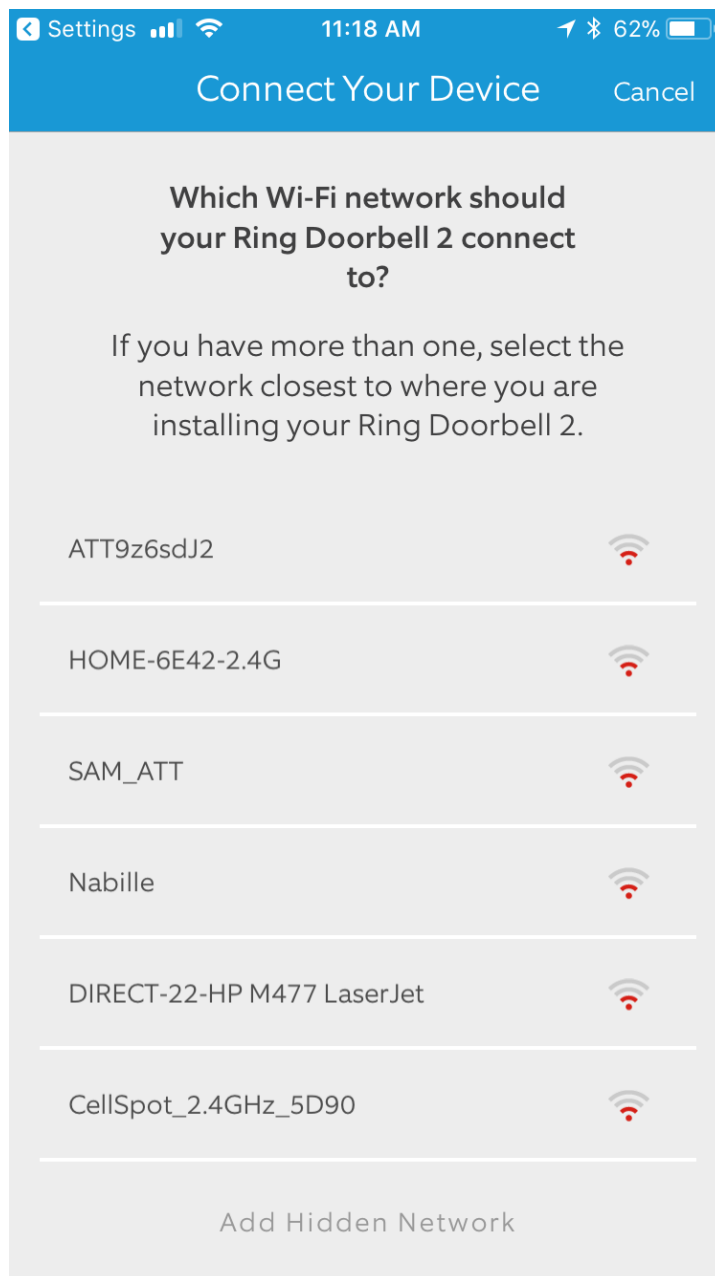
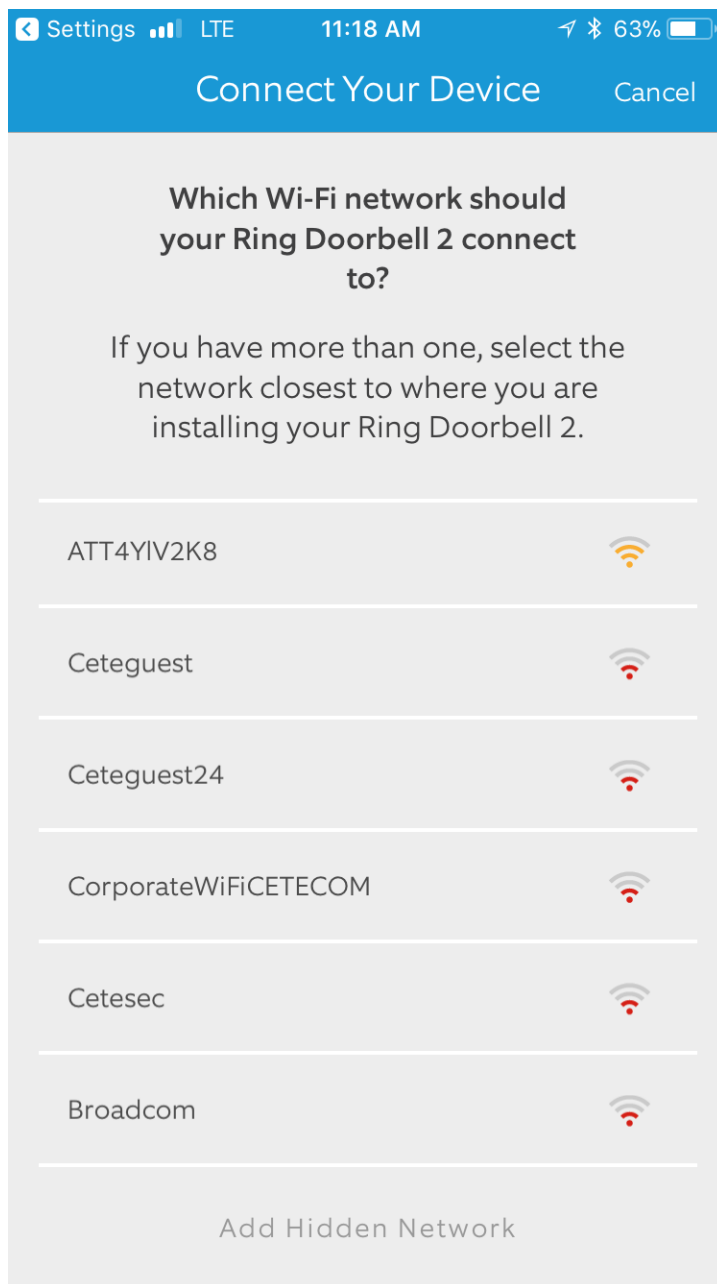### 7.3 Selection of ASUS SSID on channel 13 not possible part 2
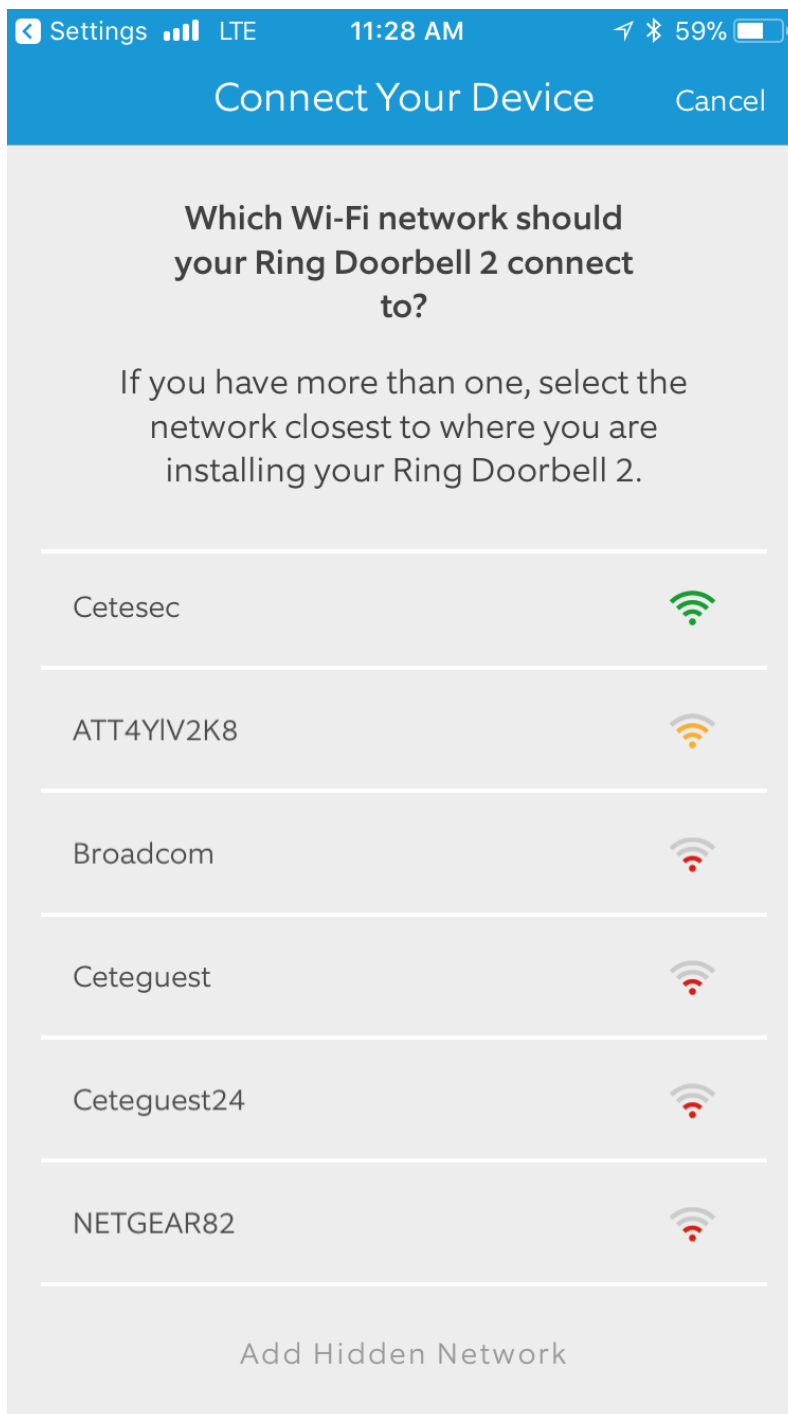
7.1   Selecting a fake address in Germany

7.1   Spoofed address does not make channel 13 available part 1

7.1   Spoofed address does not make channel 13 available part 2

7.1 Hidden network experiment

7.1   Ring forced to connect to hidden network ASUS on channel 13

7.2   Ring Searching for hidden network with no success

Your Ring Doorbell 2 is connecting
to ASUS.