



Configuring Ubiquiti Bullets and TeamViewer for Remote Computer Access

BY CARYN ZACHARIAS

Ubiquiti Bullets set up correctly will create your own wireless network, which you can use to access any equipment connected to the network or log into a computer remotely. The information on the following pages will walk you through the configuration of each Bullet, then go over TeamViewer setup for remote access computer login.

EQUIPMENT

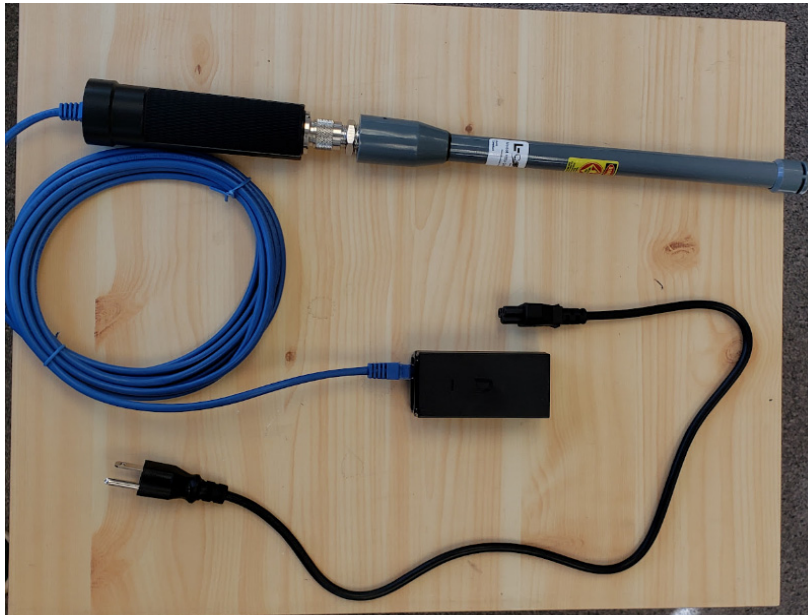
Each Ubiquiti Bullet requires the following parts for setup:

- "Ubiquiti Bullet
- "PoE (Power over Ethernet)
- "Hyperlink Antenna
- "Ethernet Cables

STEP1: CONNECT ALL PARTS AND PLUG IN FOR POWER

Ubiquiti Bullets are wireless radios designed to receive an Ethernet cable input and transmit through an antenna output. To set up each Ubiquiti Bullet, plug the equipment in the following order:

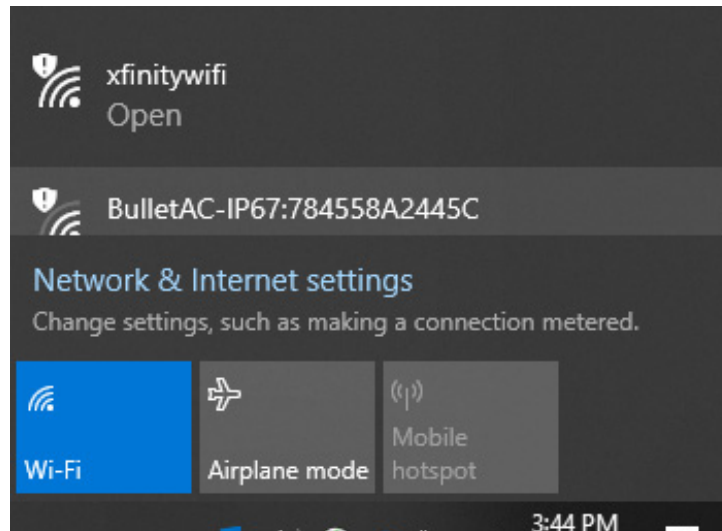
Power cord --> PoE --> Ethernet cable (PoE port) --> Bullet --> Antenna



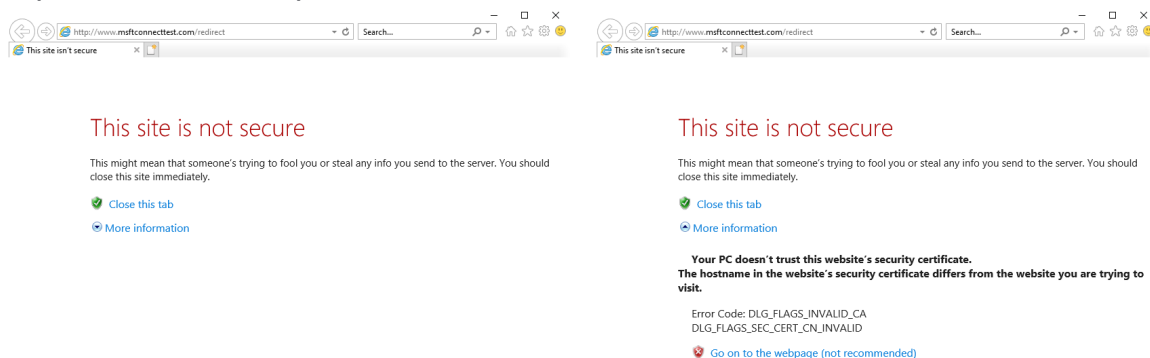
NOTE: -Use two or more Bullet setups to create your own network.
-To connect via WiFi, IP address is 192.168.172.1
-The default Ethernet IP address is 192.168.1.20
- One Bullet must be configured as the Access Point to be able to communicate with the other Bullets.
- All connected equipment must be in the same network using 192.168.1.xxx

STEP 2: CONFIGURE BULLETS USING WIFI

1. After connecting the equipment to power, go to your computer and check the available WiFi connections. BulletAC-IP67:xxxxxxx should be available - select it now.

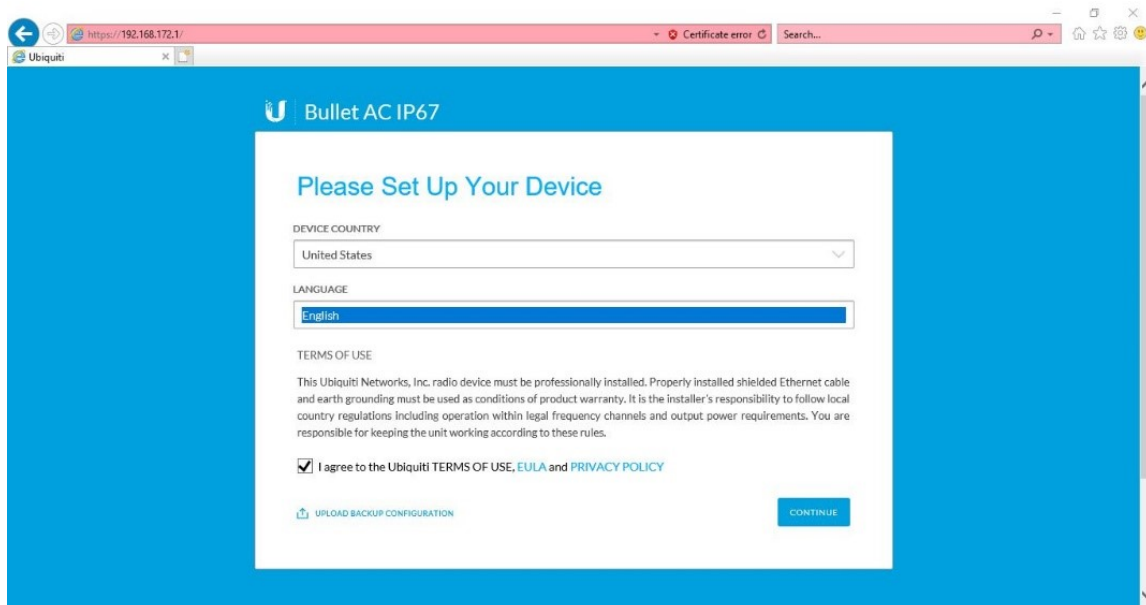


2. A web interface will open and direct you to 192.168.172.1 (this is the WiFi address). If you see the following window, click on **More Information** --> **Go on to the webpage (not recommended)**.



3. Start the setup of your Device.

- a. Enter the **Device Country** and **Language**, then **Agree to the Terms of Use**.



Ubiquiti Bullet AC IP67

Please Set Up Your Device

DEVICE COUNTRY
United States

LANGUAGE
English

TERMS OF USE
This Ubiquiti Networks, Inc. radio device must be professionally installed. Properly installed shielded Ethernet cable and earth grounding must be used as conditions of product warranty. It is the installer's responsibility to follow local country regulations including operation within legal frequency channels and output power requirements. You are responsible for keeping the unit working according to these rules.

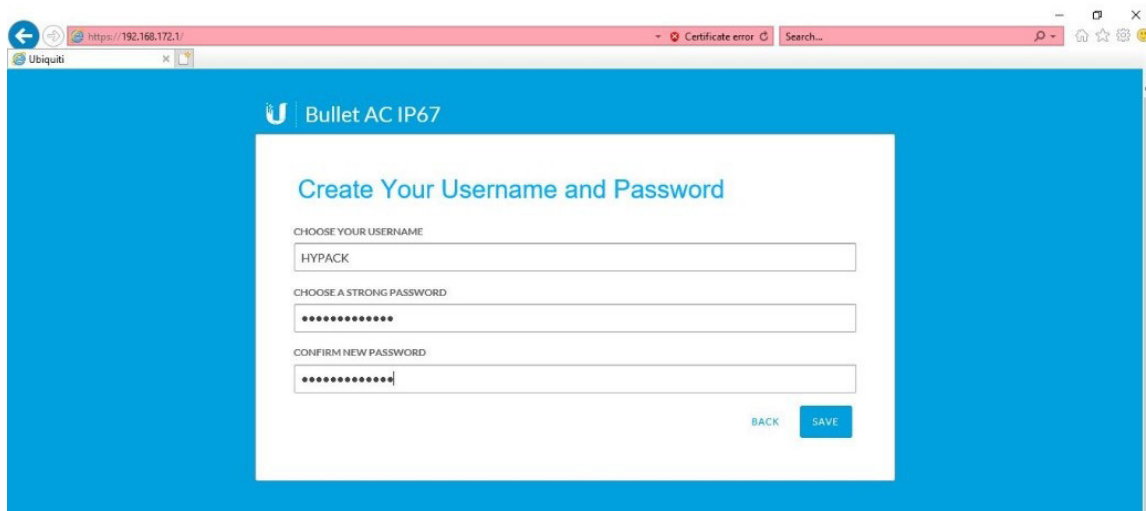
☒ I agree to the Ubiquiti TERMS OF USE, EULA and PRIVACY POLICY

[UPLOAD BACKUP CONFIGURATION](#) **CONTINUE**

- b. Create a Username and Password.

Username: **HYPACK**

Password: **HypackXylem56**



Ubiquiti Bullet AC IP67

Create Your Username and Password

CHOOSE YOUR USERNAME
HYPACK

CHOOSE A STRONG PASSWORD
.....

CONFIRM NEW PASSWORD
.....

BACK **SAVE**

CONFIGURATION FOR *BULLET #1, WIRELESS*

The steps below are for configuring a **non-Access Point Bullet**.

1. Wireless Setup - Enter the highlighted information shown below.

SSID: **HYPACK**

WPA2 PRESHARED KEY: **HypackXylem56**

airOS8 BULLET AC IP67 | 2WA.V6.7.1 UNMS

WIRELESS

Basic Wireless Settings

ACCESS POINT ☐ OFF

PTP MODE ☐ OFF

BAND 5 GHz

CHANNEL WIDTH 20/40 MHz

CONTROL FREQUENCY SCAN LIST ☐ OFF

SSID **HYPACK**

LOCK TO AP MAC

COUNTRY United States

ANTENNA **UniFi Omni - 4 dBi**

ANTENNA GAIN 4 dBi

CABLE LOSS 2 dB

OUTPUT POWER 21 dBm

AUTO ADJUST DISTANCE ☒ ON

DISTANCE 0.4 mi

Wireless Security

WPA2 SECURITY ☒ PERSONAL ☐ ENTERPRISE [?]

WPA2 PRESHARED KEY **HypackXylem56** X HIDE

☐ Secondary SSID

☐ Advanced

TEST CHANGES REVERT CHANGES SAVE CHANGES

2. Network Setup - Make sure you have the same settings as shown below (IP 192.168.1.20).

airOS8 BULLET AC IP67 | 2WA.V6.7.1 UNMS

NETWORK

Network Role

NETWORK MODE Bridge

Configuration Mode

CONFIGURATION MODE Simple

Management Network Settings

MANAGEMENT IP ADDRESS ☐ DHCP ☒ **STATIC**

IP ADDRESS **192.168.1.20**

NETMASK 255.255.255.0

GATEWAY IP 192.168.1.1

PRIMARY DNS IP 8.8.8.8

SECONDARY DNS IP

MTU 1500

STP ☐ OFF

MANAGEMENT VLAN ☐ OFF

AUTO IP ALIASING ☒ ON

DHCP OPTION 82 ☐ OFF

IPV6 ☒ ON

IPV6 ADDRESS ☒ LOCAL ☐ STATIC

☐ Traffic Shaping

SAVE CHANGES

CONFIGURATION FOR BULLET #2, WIRELESS

The steps below are for configuring the **Access Point Bullet**.

1. Wireless Setup - Same as in the configuration for Bullet #1, but **enable the Access Point**.

SSID: **HYPACK**
WPA2 PRESHARED KEY: **HypackXylem56**

Basic Wireless Settings

ACCESS POINT ☒ ON

PTP MODE ☐ OFF

BAND 5 GHz

CHANNEL WIDTH 40 MHz

FRAME DURATION Flexible

CONTROL FREQUENCY LIST, MHz ☐ OFF

CENTER FREQUENCY, MHz 5175

CONTROL FREQUENCY, MHz 5165

SSID HYPACK

COUNTRY United States

ANTENNA UniFi Omni - 4 dBi

ANTENNA GAIN 4 dBi

CABLE LOSS 2 dB

OUTPUT POWER 4 dBm

Wireless Security

WPA2 SECURITY ☒ PERSONAL ☐ ENTERPRISE [?]

WPA2 PRESHARED KEY HypackXylem56

WIRELESS NETWORK PROTECTION [?] ☐ OFF

MAC ACL ☐ OFF

Advanced

SAVE CHANGES

2. Network Setup - Same as in the configuration for Bullet #1, with a different IP address entered (IP **192.168.1.21**).

Network Role

NETWORK MODE Bridge

Configuration Mode

CONFIGURATION MODE Simple

Management Network Settings

MANAGEMENT IP ADDRESS ☐ DHCP ☒ STATIC

IP ADDRESS 192.168.1.21

NETMASK 255.255.255.0

GATEWAY IP 192.168.1.1

PRIMARY DNS IP 8.8.8.8

SECONDARY DNS IP

MTU 1500

STP ☐ OFF

MANAGEMENT VLAN ☐ OFF

AUTO IP ALIASING ☒ ON

DHCP OPTION 82 ☐ OFF

IPV6 ☒ ON

IPV6 ADDRESS ☒ LOCAL ☐ STATIC

Traffic Shaping ☐

SAVE CHANGES

CONFIGURATION FOR BULLET #3, BULLET #4, ETC. WIRELESS

Follow the steps in Configuration for Bullet #1 (not the Access Point Bullet setup). However, remember that each Bullet needs to have a different IP address.

Suggested IP addresses:

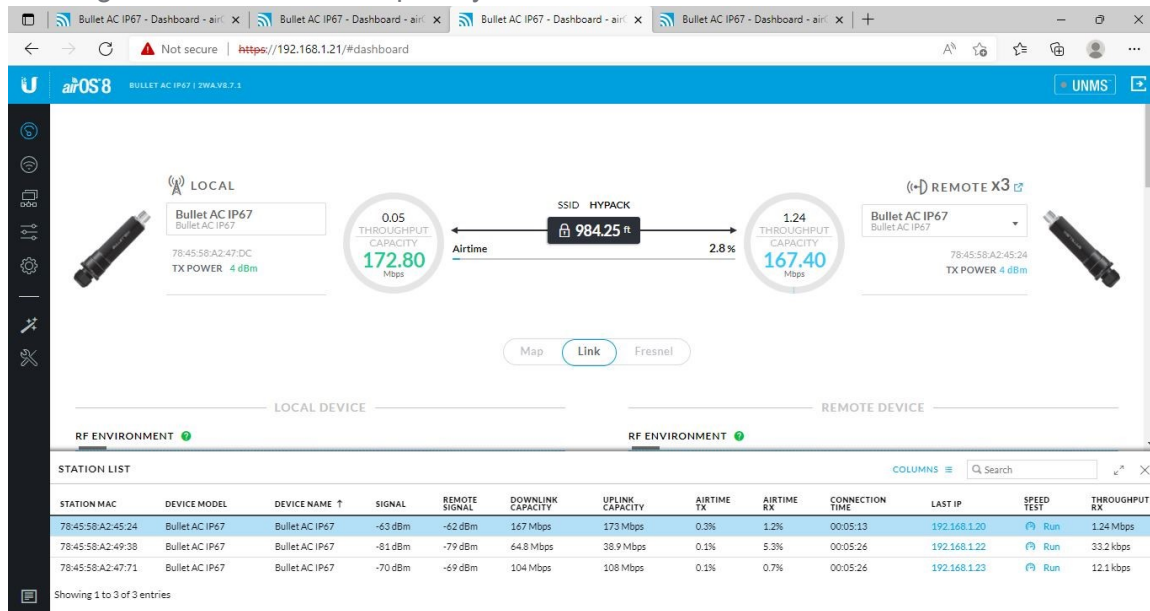
- Bullet #3 - **192.168.1.22**
- Bullet #4 - **192.168.1.23**

etc..

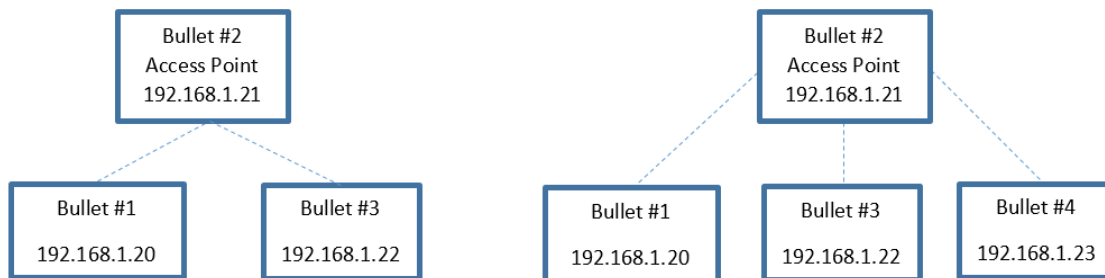
STEP 3: HOW TO TALK WITH TWO OR MORE CONFIGURED BULLETS

After all Bullets are configured, plug one into a computer via the Ethernet cable. Using the PoE adapter, you will now have two Ethernet cables plugged into it. You can use a command prompt window to ping all Bullets (ex: Ping 192.168.1.20).

After pinging or just opening up a web browser and connecting to each Bullet, you will see the following dashboard. In this example, I am connected to four Bullets. Remember to plug the remaining bullets into each computer you would like to access on the network.



The following diagram shows examples of three-Bullet (left) and four-Bullet (right) Network configurations.

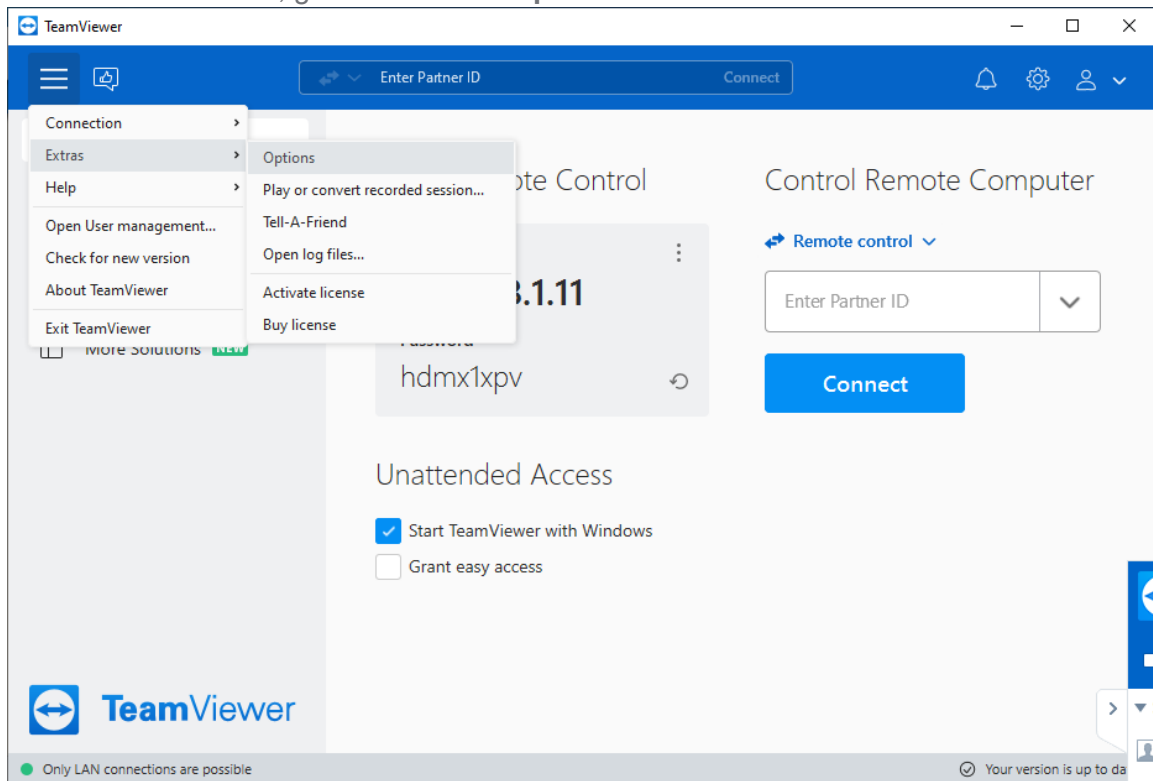


STEP 4: CONNECTING TO COMPUTER(S) IN THE NETWORK WITHOUT INTERNET

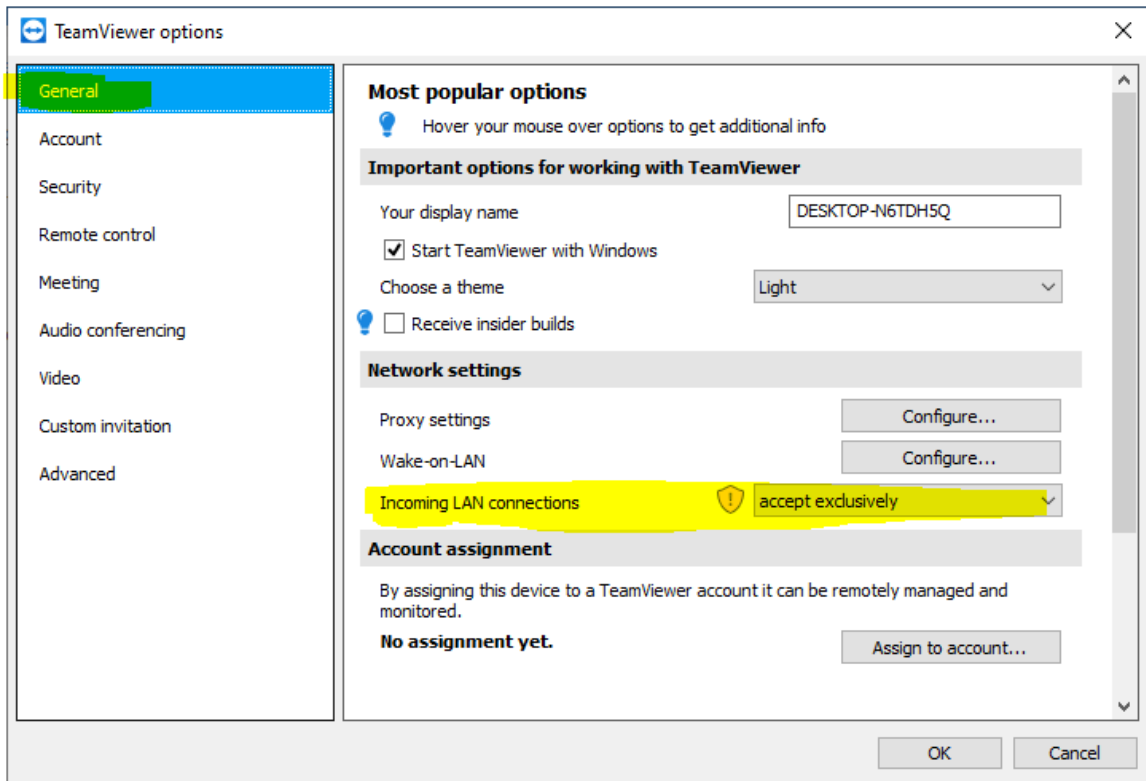
Use TeamViewer or some other log in software. The steps below will show how to configure TeamViewer for Onsite Computers you want to access using the network just created instead of the Internet.

1. Set up TeamViewer for Unattended Access on your Onsite Computers.
 - a. Open TeamViewer.

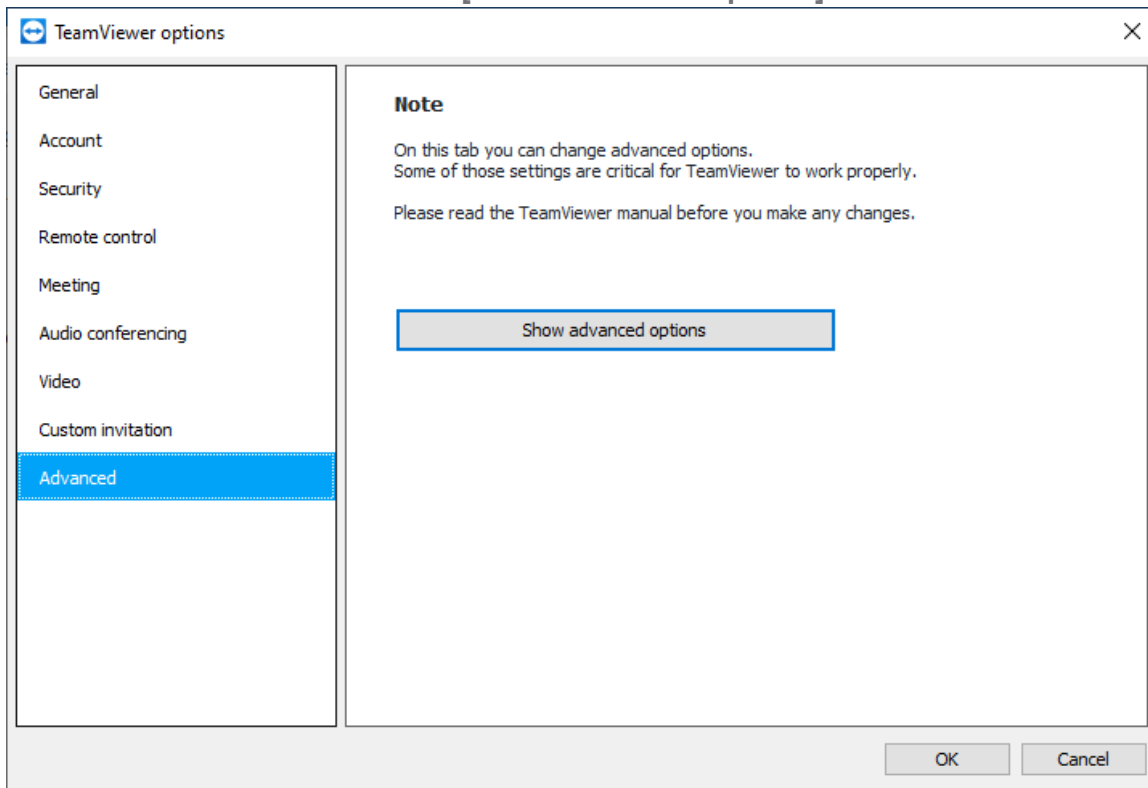
b. From the menu, go to **Extras --> Options**.



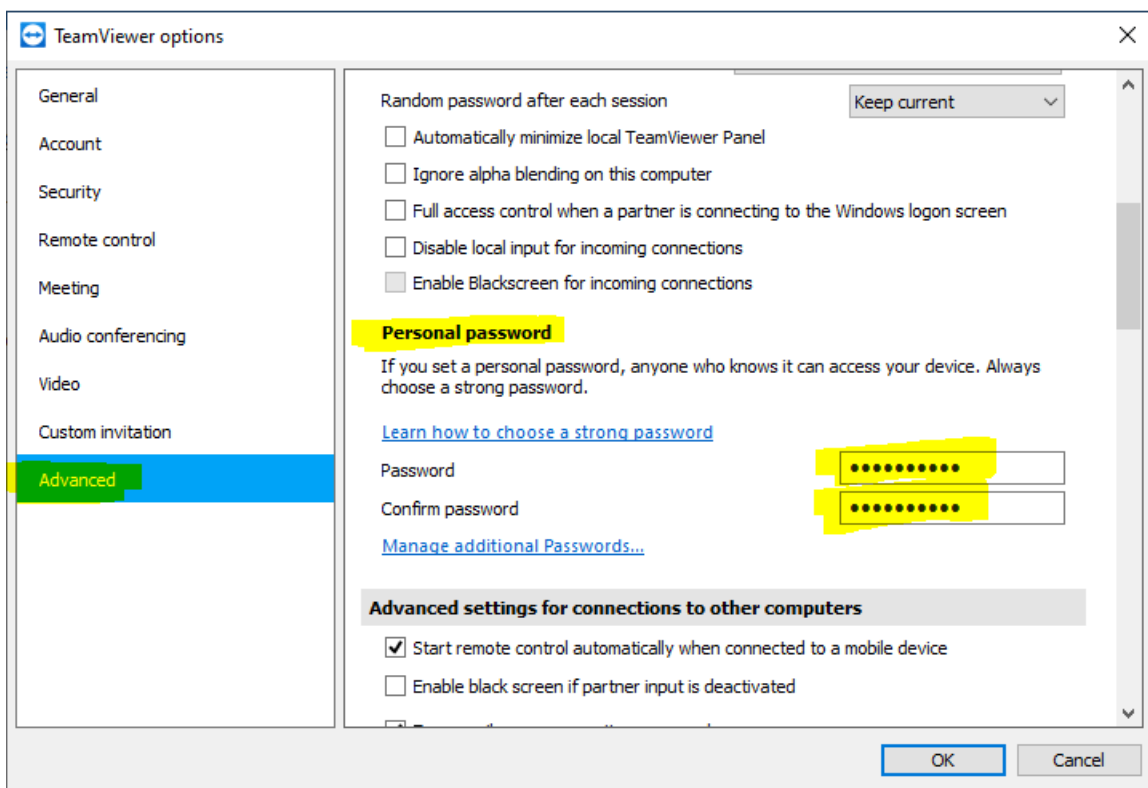
c. Click on **General** and change **Incoming LAN Connections** to **Accept Exclusively**.



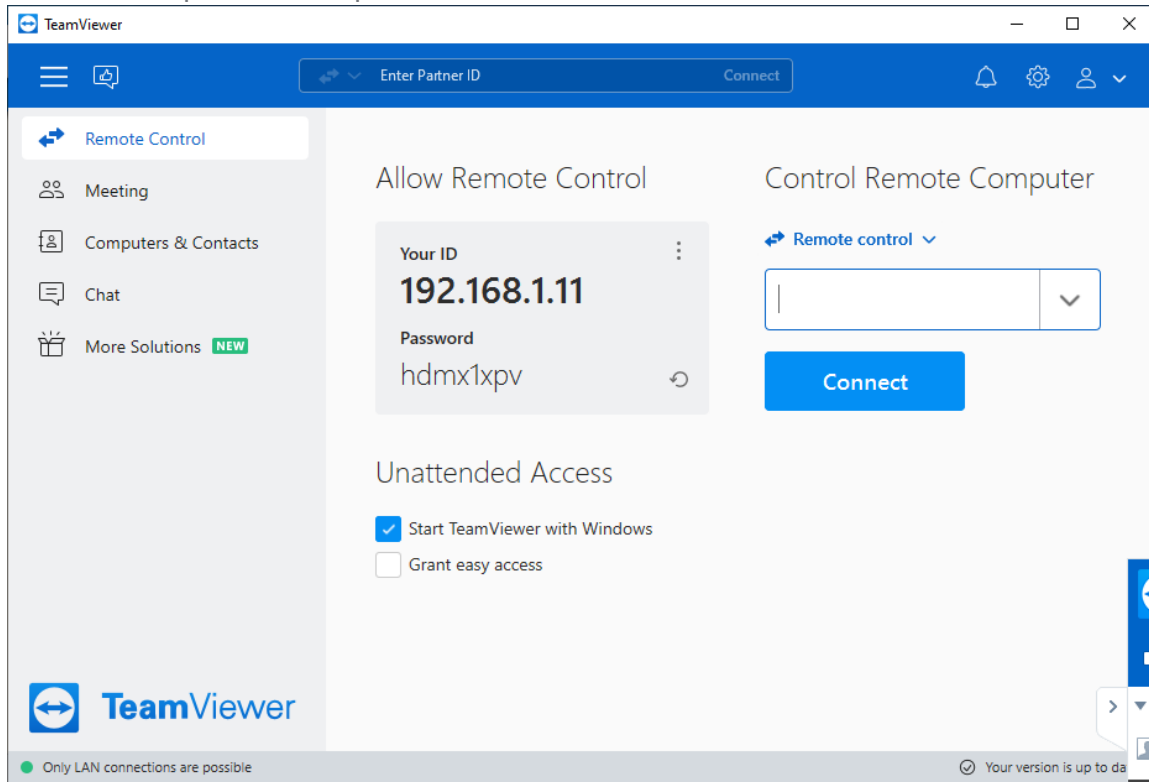
d. Click on **Advanced** and click **[Show Advanced Options]**.



e. Under **Personal Password**, enter a password, then click **[OK]**.



- f. The IP address of the computer will now be in the Your ID Field. Check the box next to **Start TeamViewer with Windows** so TeamViewer will always automatically run when the computer boots up.



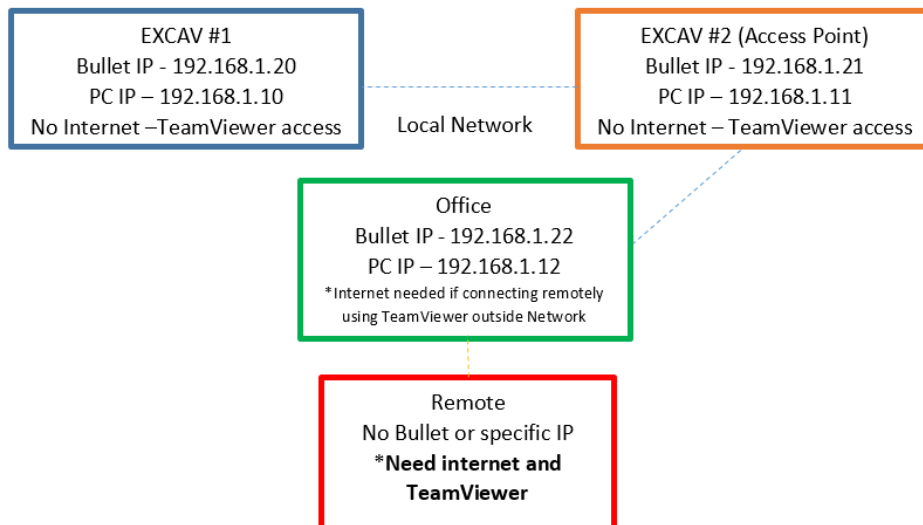
- g. Repeat steps 1a through 1f with each Onsite Computer that you would like to have Unattended Access to.
2. Open up TeamViewer on the Office Computer (This computer must have internet if you want to access it from another computer off the network, ie: a Remote Computer).
 - a. Enter the IP address of the Onsite Computer set up with Unattended Access.
 - b. Enter the password created in step 1e for that computer.
 3. Connecting to the Office Computer from a Remote location off the network.
 - a. Open TeamViewer on the Remote (Home) computer.
 - b. Enter the TeamViewer ID and Password of the Office Computer.

EXAMPLE APPLICATION

The example below shows how to remotely connect to computers on a network created by several Ubiquiti Bullets. This specific configuration needs three Bullets and TeamViewer set up on all computers.

Two excavators each with an Onsite Computer (EXCAV #1 and EXCAV #2) and one Office Computer are connected on the local network, with EXCAV #2 as the Access Point. EXCAV #1 and EXCAV #2 have no Internet access, however all three computers have TeamViewer configured. To log in to the Office Computer from a Remote Computer (located offsite), the

Office and Remote computers both need Internet access and TeamViewer.



The screen below shows the **Remote (Home) Computer** logged into the **Office Computer (ID: 213 957 824)** which is connected to the **Onsite Computer (192.168.1.11)**. This Onsite Computer is currently connected to EXCAV #2. Switch to the computer EXCAV #1 by logging in with its PC ID (ID: 192.168.1.10).

