



Quick Start Guide: Remote Access

Nov 2020

Housekeeping

Happy Friday!

- Participants will be muted until the Q&A session.
- Ask questions via chat
- We will be recording this webinar. And it will be available for playback on our YouTube channel, **Blue Iris Support**.
https://www.youtube.com/channel/UCDkejni_hONfMPfI7I2u64g
- This presentation will also be available in the YouTube video notes for download.

Agenda

- Introductions
- Software: Installation & Suggested Hardware
- **Remote Access: Webserver & Mobile app (not Remote Administration)**
- Q&A

Software: Installation & Suggested Hardware

1. 15-day Trial
2. Download software

Cajoling Technologies – Blue Iris Tutorials.

<https://www.youtube.com/playlist?list=PLnL59ZzaR6iJpZXRedTjEmrwWlXj1Vlcp>

- Install & Camera Setup
- Clips & Archiving
- Motion Zones, Triggers and Alerts
- Scheduling & Profiles
- **Port forwarding vs VPN**

Home Tech Video – Blue Iris Tutorials

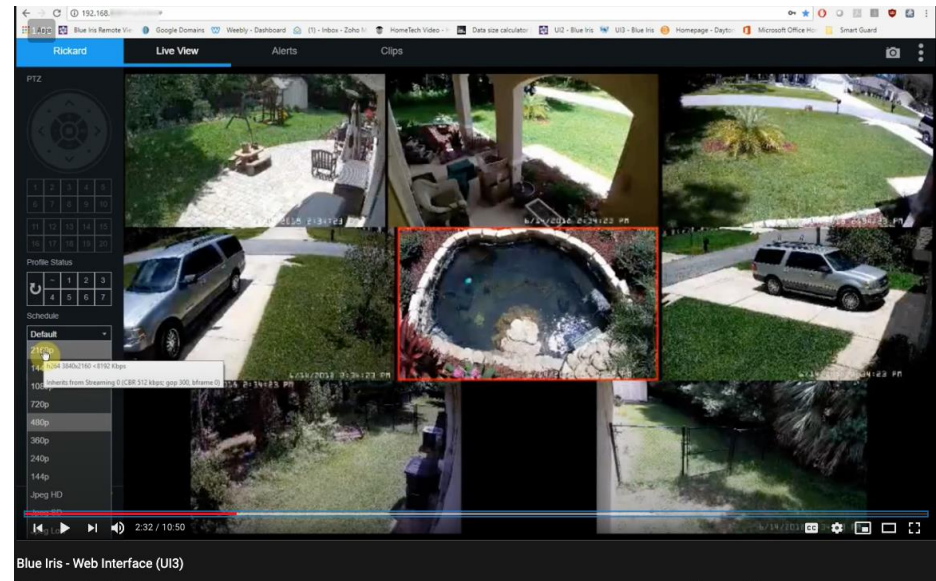
<https://www.youtube.com/watch?v=rPIbTc8JRuU&list=PLwwZSA4tzwhOlkPaKIfgaA2Ajp7ZH8CWB>

Web Server

YouTube: HomeTech Video – Blue Iris Web Interface UI3

https://youtu.be/-BbtW_U8SIA

- Be able to look at home cameras while at work
- Allow certain employees access to specific cameras
- Allow the public access to specific cameras



Mobile Apps

- Android

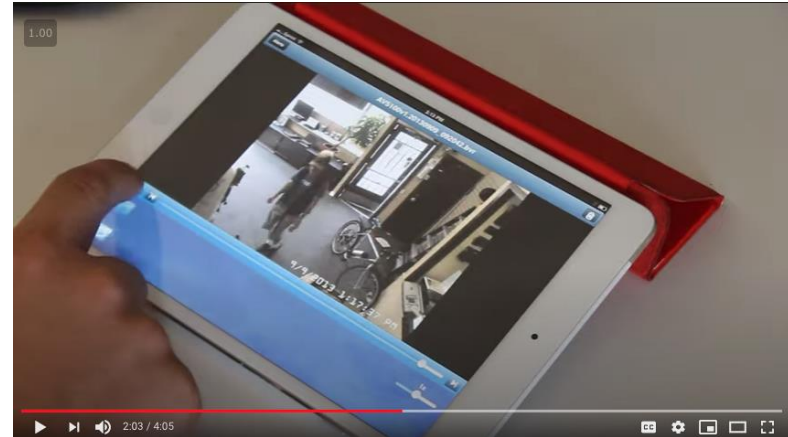
A Blue Iris Android App Walk Through

<https://youtu.be/SvnCzcFQ7fA>

- iPhone/iPad

Blue Iris Remote Access On iPad & Android

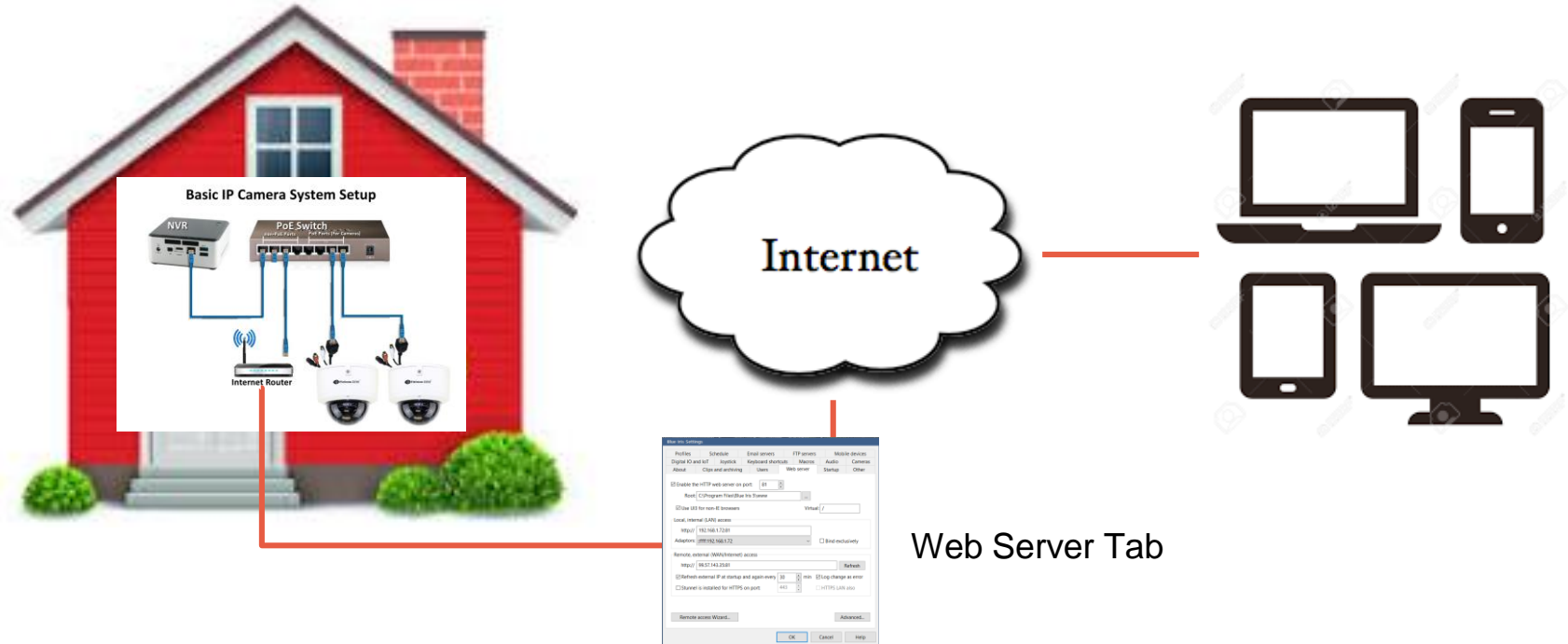
<https://youtu.be/DDMwa3UINqc>



Objective: Remote Access

Last week: Connect your cameras to Blue Iris

Today: Remote access to your cameras anytime, anywhere on any device



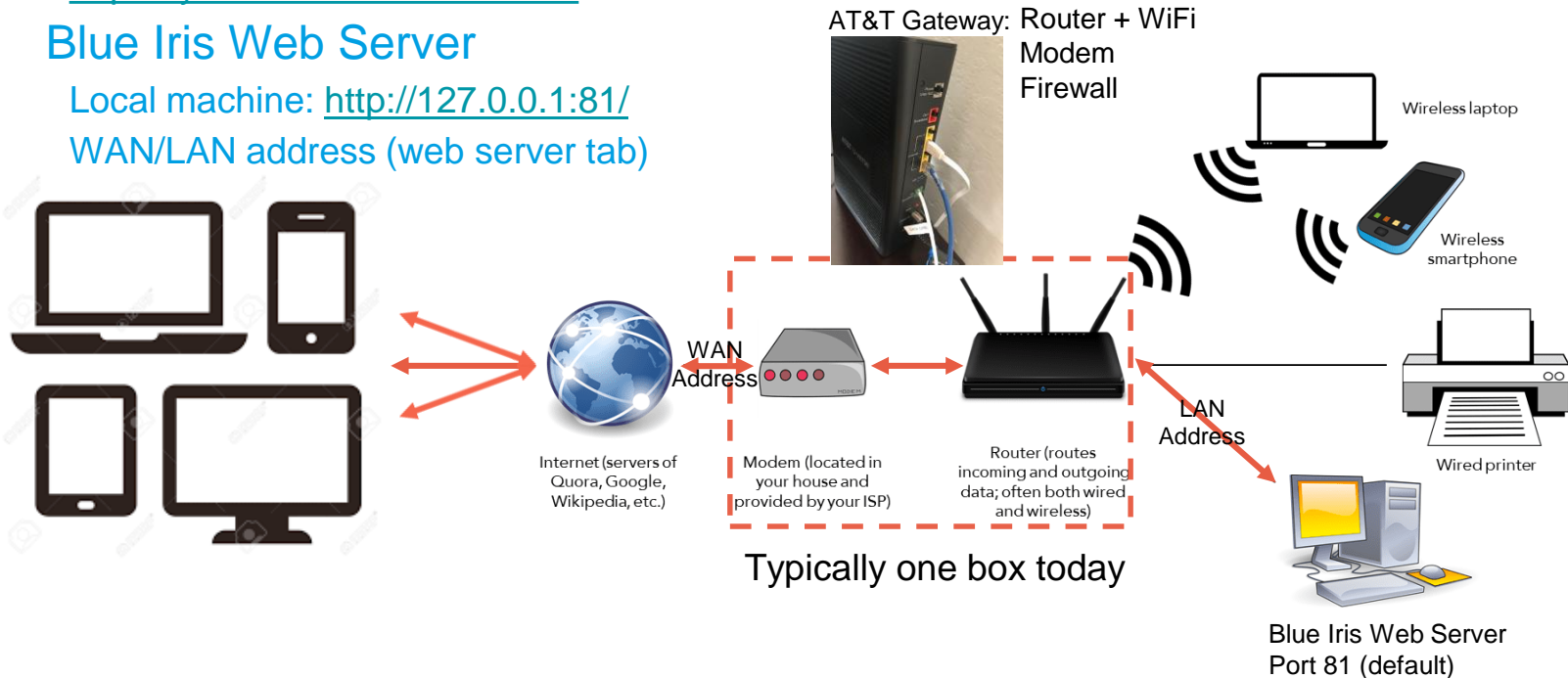
Method 1: Port forwarding

- Eli The Computer Guy: Setting Up Port Forwarding

<https://youtu.be/dmQnJRXbzEk>

- Blue Iris Web Server

Local machine: <http://127.0.0.1:81/>
WAN/LAN address (web server tab)



Method 1: Port forwarding Demo

- Find the IP address of your network router using **ipconfig**.
This YouTube video, <https://youtu.be/k1qgpgQ0Mo4>, explains the **ipconfig** command.
Remote Access Wizard provides router address.
- From your Chrome browser, go to the router IP address found in previous step.
Login to your router. You need to know username / password for your router.
- Firewall: Tell firewall to forward port 81 to Blue Iris server.
portforward.com: Has instructions for many routers
- LAN: Tell router to always assign same IP address (static IP address) to the Blue Iris Server

Test

Access website from browser.

Canyouseeme.org.

Blue Iris Mobile App.

Blue Iris – New WAN Address

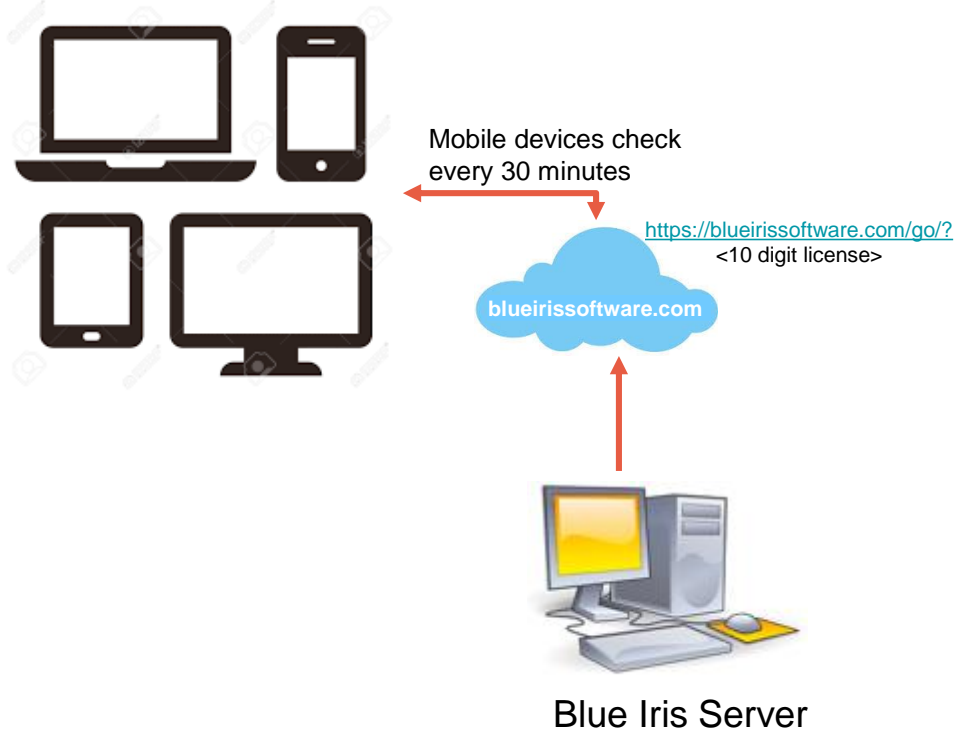
Blue Iris Settings

| Profiles | Schedule | Email servers | FTP servers | Mobile devices |
|--------------------|---------------------|--------------------|-------------|----------------|
| Digital IO and IoT | Joystick | Keyboard shortcuts | Macros | Audio |
| About | Clips and archiving | Users | Web server | Startup |
| | | | | Other |

Release 5.3.2.11 x64 (9/25/2020)
Copyright ©2020 Perspective Software
All Rights Reserved
<https://blueirissoftware.com>
System name:
☒ Auto export ...

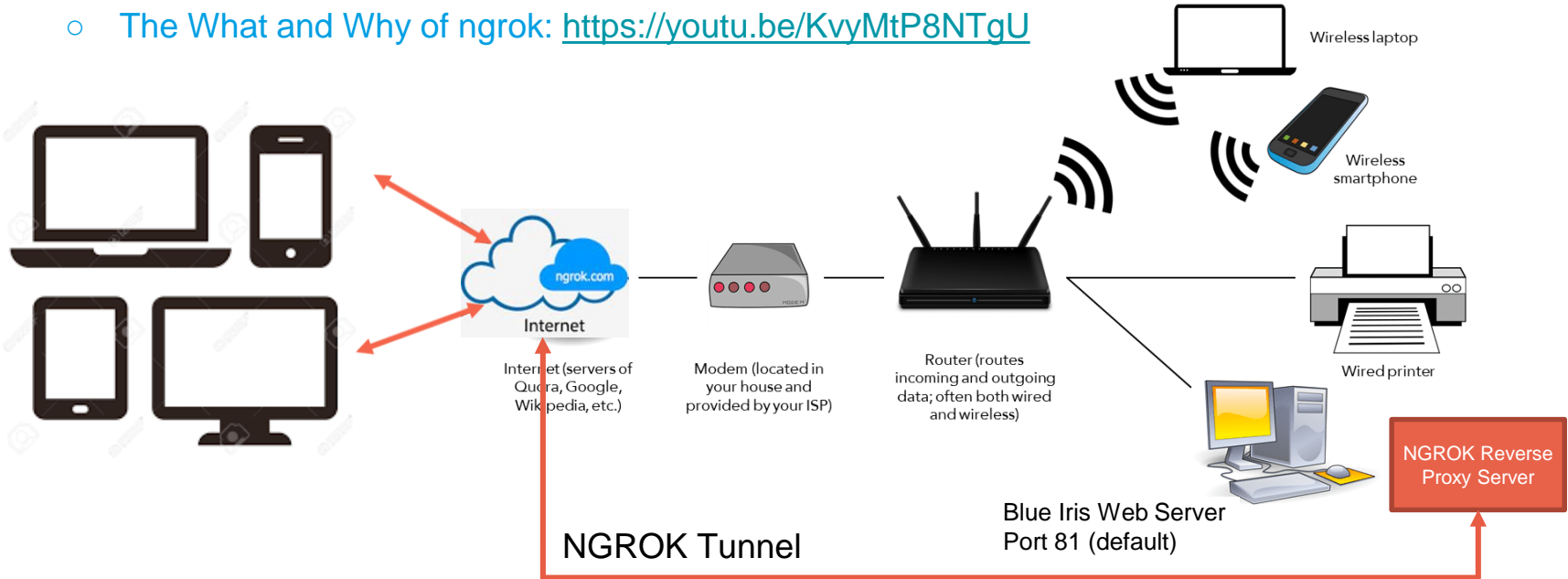
Registration
License key: EXWVY-xxxxx-xxxxx-xxxxx-34M8F Name:
 Email:
☒ Register IP address to assist with client app connections

Software support and maintenance (updates)
Critical and highly stable updates only Support level: Basic
Check at startup and daily at Expires: 3/11/2021
 11/5/2020 3:14:20 PM



Method 2: NGROK

- NGROK is a company started from an open-source project
 - ngrok.com (free & paid versions)
 - The making of ngrok – Alan Shreve: https://youtu.be/F_xNOVY96Ng
 - The What and Why of ngrok: <https://youtu.be/KvyMtP8NTgU>



Method 2: NGROK

- Download software

Quick start video: What is ngrok?: <https://youtu.be/UaxqJUXqvro>

Blue Iris Help File: NGROK section

- Run NGROK: ngrok http 81

Get public NGROK URL

```
ngrok by @inconshreveable
1:50
Session Status      online
Update             update available (version 2.2.4, Ctrl-U to update)
Version            2.1.18
Region             United States (us)
Web Interface       http://127.0.0.1:4040
Forwarding          https://930b65b1.ngrok.io -> localhost:3000
Forwarding          https://930b65b1.ngrok.io -> localhost:3000

Connections        ttl    opn    rt1    rt5    p50    p90
0              0      0.00   0.00   0.00   0.00
```

- Blue Iris Help – good resource

Test

Blue Iris Mobile App.

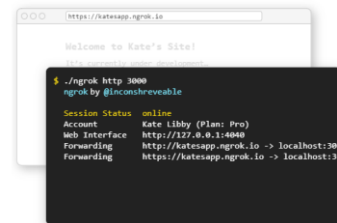
1

Go to ngrok.com. “Get started for free” button.

Public URLs for

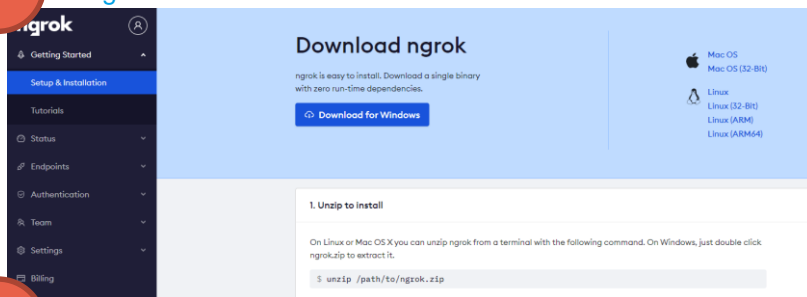
Spend more time programming. One command for an instant, secure URL to your localhost server through any NAT or firewall.

Get started for free



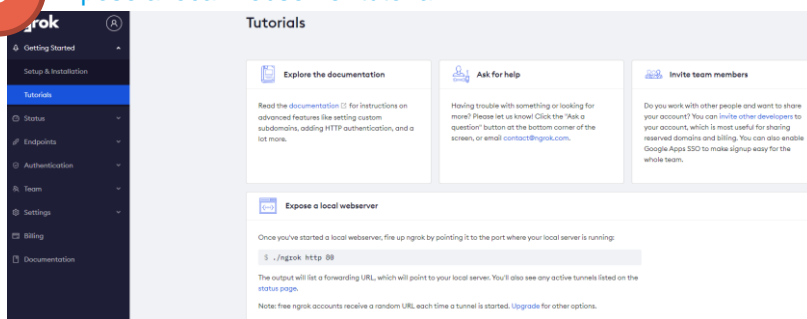
2

Login. Download software and install.



3

Expose a local webserver tutorial



Remote Access Wizard

Remote access

This wizard will guide you on the configuration of your PC and network in order to allow communication both with your network cameras and the client apps.

Before continuing, you should ideally have your PC connected to your main Internet router which is often also a cable modem.

You should not be using port 80 as that's often difficult or impossible to route. If the default port 81 is already routed for another purpose, choose another port such as 8081.

Your login credentials are securely encrypted, however some may desire that video is also encrypted, and for this you would need an HTTPS add-on called [Stunnel](#). First, you should be able to connect without this extra step.

Please note that there are situations in which remote access via port forwarding will not be possible. These include cases where you do not have admin access to your main Internet router or your ISP is blocking incoming connections.

If you are unable to complete port forwarding on your router, it may still be possible to connect in to your server using an [NGROK](#) secure tunnel. In this case a separate HTTPS layer would not be required.

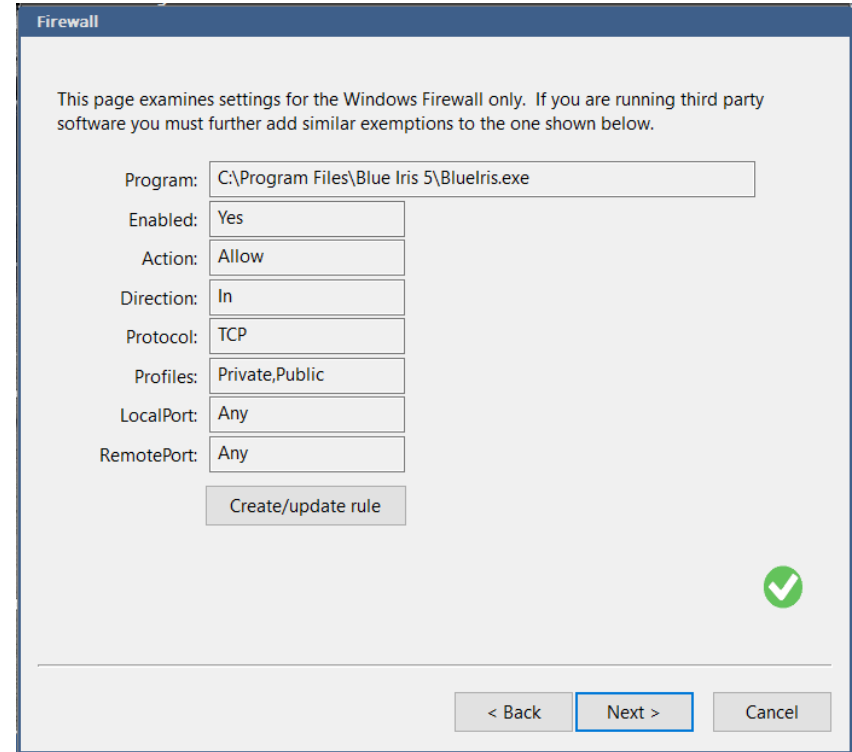
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Cancel

Remote Access Wizard: Firewalls & Antivirus

- Windows Firewall
- Other Firewalls could be installed on your machine
 - Need to configure all firewalls to trust Blue Iris to use the internet.
- Antivirus Software
 - McAfee
 - Symantec



The screenshot shows the 'Firewall' configuration window in Windows. The title bar is 'Firewall'. The main text says: 'This page examines settings for the Windows Firewall only. If you are running third party software you must further add similar exemptions to the one shown below.'

The configuration fields are as follows:

| | |
|-------------|---|
| Program: | C:\Program Files\Blue Iris 5\BlueIris.exe |
| Enabled: | Yes |
| Action: | Allow |
| Direction: | In |
| Protocol: | TCP |
| Profiles: | Private,Public |
| LocalPort: | Any |
| RemotePort: | Any |

Below the fields is a button labeled 'Create/update rule'. In the bottom right corner, there is a green checkmark icon. At the very bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a blue border.

Remote Access Wizard: Internet Access

- Green check confirms internet access.

Internet access

This page checks for basic Internet connectivity. Internet Explorer should be installed, configured, and working in Online mode.

Internet status:

Online

WinInet web request:

ok

Test again

You should also take this opportunity to ensure that you've exempted the program .EXE from any antivirus or malware scanning which may limit or slow network access.

Interference from other software may surface later as a limit to the number of IP cameras that may be added (often 3 or 4) or the creation of very large temp files on your system.

✓

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Cancel

Remote Access Wizard – Web Server

Web Server


The software runs a web server on your network by "listening" to a specific port, by default on all network adapters (Ethernet, WiFi, etc.). This page will verify that it's running and reachable on the LAN.

HTTP

Listening on port: :81

Web request: ok

Net status: TCP [::]:81 [::]:0 LISTENING



HTTPS (if using stunnel)

Listening on port:

Web request:

Net status:

Test again

Click <http://192.168.1.72:81> to open your web server in a browser

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Cancel

Remote Access Wizard – Router

Router

Your router is your gateway to the Internet. It's also responsible for remote access to your cameras.

Router's address on your LAN:

192.168.1.254

Open...

Your Internet/WAN address:


99.57.143.35:81

Are you able to login to your router's configuration via browser? If necessary, obtain the admin password from your installer or device manufacturer. ☒

Does the router configuration show its WAN or gateway address matches your actual Internet/WAN address? Or can you configure both routers? ☒

If your router shows its gateway is 192.168.x.x or 10.x.x.x, then it's connected to another router, not the Internet directly. You can solve this in one of several ways:

Connect your PC to the other router; set the main router to DMZ or forward ports to this router; or reconfigure this router as an access point or switch instead of a gateway.



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Cancel

Remote Access Wizard – Port Forwarding

- Secure: Port forwarding / NGROK (tunneling)
- UPnP not available on all routers (AT&T)
Stability: Server restarts. Router resets.
Security

@Bskbkid wrote:

So, what options does a customer have with their security cameras?

To open the ports on the firewall manually that the security camera needs. Or have a router behind a router setup.

You dont specify to customers when selling this stuff that they cannot use their existing equipment.

You can keep using your current equipment. I have a 2nd router acting as an access point so I can have the 802.11n 5GHz frequency to connect to.

U-Verse is supposed to be the latest and greatest and wont support a simple protocol?

What makes U-Verse great is that it doesn't allow for terrible protocols to be simply turned on by the average user.

Port Forwarding

Port forwarding opens an external port on your network. The router will send requests on this port to your PC running this software.

Router's address on your LAN:

Port forwarding rule

Port: LAN address:

Protocol: TCP LAN port:

Can you enable UPnP in your router and then use it to add this rule or otherwise manually add the port forwarding rule? ☒

For more on port forwarding, see portforward.com

Remote Access Wizard – Final Test

Remote Access Test

This page performs a final test on your network and routing, to ensure that your external port is actually visible on the Internet.

WAN address:

http://99.57.143.35:81

Verified IP:

99.57.143.35

Verified server:

BlueServer/5.3.2.11

Test again

The IP address should match what you've seen so far as your Internet address. The server should say Blue Iris. If it shows another name, your router is forwarding this port to a camera, your router, or another device and this will need to be corrected.

You might also like to check out canyouseeme.org

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Remote Access Wizard – Client app login

Client app login

If you have successfully completed all prior steps, you should now be able to connect using one of the client apps with the following settings:

System name:

Lookup key:

LAN:

WAN:

Username:

Password:

☒

< Back Next > Cancel

Remote Access Wizard – Dynamic DNS (DDNS)

miabury square

Registration

License key: EXWVY-xxxxxx-xxxxxx-xxxxxx-34M8F Name: Samuel Varghe

Deactivate Email: samuel@smar

☒ Register IP address to assist with client app connections

Software support and maintenance (updates)

No automatic updates

Support level: Basic

Expires: 3/11/21

Dynamic IP

Unless you pay extra to your ISP for a Static address, your external IP address will eventually change. This may be only when your modem is reset, but it could happen at any time or not for years.

One way around this is to use a name hosting service such as no-ip.com. Software is installed onto your PC or router which notifies the service when your IP changes. You then use a link to their website instead of an IP address.

Blue Iris does not need to know you are using a name hosting service. You will always still have an IP address--the name is just an alias.

Your Blue Iris license also includes a pseudo-name hosting service, enabled with a checkbox on the Settings page. Access these addresses remotely using blueiris.pro/go?XXXXXXXXXX where the first 5 and last 5 digits of your license key are used.

< Back Finish Cancel

Webinars coming next

Quick Start Guide

- Remote Access (UI3, mobile phones)
- Storage: Clips & Archiving
- Triggers / Alerts
- Advanced Remote Access (Geo-fencing, Push notifications, [https/Stunnel](#))

Advanced Tuning Topics

Why is my computer so slow?

- Performance tuning
- CPU
- RAM
- Stream loss / reconnects

Advanced Networking Topics

- RTSP Streams: Basic / Digest Authentication
- Cameras: Static vs Dynamic IP addresses
- Router Client Table
- Packet sniffer
- Advanced Port Scanner

Other topics

- Hardware recommendations
- 2-way audio

Self Help Resources

- YouTube Channel: Blue Iris Support
https://youtube.com/channel/UCDkejni_hONfMPfI7l2u64g
- Blue Iris User Forum
<https://blueirissoftware.com/forum/index.php>
- FAQs (in forum)
<https://blueirissoftware.com/forum/app.php/help/faq>



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