Network Configuration Guide

Verkada cameras are designed to work automatically with your existing LAN/WAN while enabling secure remote access and high network security standards. In most cases, no updates to your network settings are required. Depending on your particular environment, however, some configuration may be required to get your cameras online.

OLD CCTV	VERKADA
Open ports & inbound access to devices and on-premise web servers	✓ Outbound connections only over HTTPS/SSL via Port 443; no open ports and no openly accessible servers running on any device
Insecure video transmission (e.g., RTSP streams)	✓ Transmits all data over HTTPS; doesn't rely on physical security of wiring or VLAN-security
Out of date firmware that requires technical knowledge and manual labor to update	✓ Regularly scheduled automatic firmware updates; dual firmware bank partitions with automatic failover for highly reliable updates
Complicated VPN configuration and maintenance	✓ No VPNs required — default data encryption (in transit and at rest)
High bandwidth consumption — IP cameras stream 100% of video at all times	✓ Slim bandwidth footprint (20 kbps) — cameras record video locally, sending only thumbnails and video metadata during "no view" mode

Blanket Firewall Whitelist

Verkada cameras need to communicate with specific domains owned by Verkada to provide you with a full-featured experience. All communication between a Verkada camera and the Verkada servers is over HTTPS port 443 and NTP port 123 for time synchronization.

Depending on your firewall rules, you may need to whitelist Verkada's camera server domain, control.verkada.com (all port 443): ***.control.verkada.com**.

Select Firewall Whitelist

If you prefer to not whitelist an entire domain, you may instead whitelist these specific subdomains:

update.control.verkada.com
api.control.verkada.com
relay.control.verkada.com
index.control.verkada.com
firmware.control.verkada.com

DHCP

Verkada cameras must be assigned a routable IP address via DHCP. It is possible to assign a range of dynamic addresses to your Verkada camera network.

Static IP

For network security reasons, static IP addresses are not currently supported. If your use case requires a static IP, please contact us.

Proxy Servers

Verkada cameras are not compatible with LANs that use proxy servers, so be sure to configure your network in a way that avoids having your cameras go through a proxy.

VERKADA BANDWIDTH USE (PER CAMERA)

OPERATING MODE	UPLINK USAGE	NOTES
Steady state camera upload	20 kbit/s (low-bandwidth mode) 50 kbit/s (regular)	Camera uploads only thumbnails and select metadata
View video stream from internet	300 kbit/s (standard definition stream) 1 mbit/s (full 3MP HD stream)	User can select low- or high-res stream within Command
View video stream from the LAN	0 kbit/s	Contact Verkada to enable local viewing