

This guide defines the minimum and recommended network configuration for deploying Visionflex in clinical and enterprise environments. IT administrators should validate all settings prior to go-live.

BANDWIDTH REQUIREMENTS

Source: Vonage Video API official support documentation (api.support.vonage.com)

Minimum (per session)	Standard HD (per session)	Full HD / 1080p (per stream)
350 kbps ↑ + 350 kbps ↓ = 700 kbps total Default: 640x480 @ 30fps	1.5 Mbps ↑↓ Stable quality at 720p	3–5 Mbps per stream 6 Mbps upload if simulcast

Bandwidth scales per concurrent session. If bandwidth drops below the minimum threshold, video quality and connection stability may become unpredictable.

REQUIRED PORT CONFIGURATION

PORT	PROTOCOL	PURPOSE	STATUS
443	TCP	HTTPS — Visionflex backend API, RoomVu servers, Vonage Video (WebRTC signalling), VF Sync, certificate verification	Required
3478	TCP/UDP	STUN/TURN — NAT traversal for WebRTC media sessions (turnserver- aus.visionflex.com)	Required
5349	TLS	Secure STUN/TURN — Encrypted NAT traversal over TLS (fallback for restricted networks)	Required
1935 / SRT	TCP	RTMP/SRT — RoomVu camera streams to Antmedia media server (vf-antmedia-prod.visionflex.com)	Required
1025–65535	UDP	WebRTC Media — Audio/video RTP streams; wide UDP range gives optimal quality, eliminates need for TURN relay	Recommended
80	TCP	HTTP — OCSP/CRL certificate validation (ocsp.godaddy.com , crl.godaddy.com)	Recommended

DOMAIN WHITELIST (Firewall/Proxy)

NO	DOMAINS
1	*.visionflex.com
2	*.tokbox.com
3	*.opentok.com
4	*.vonage.com
5	*.media.prod.tokbox.com
6	ocsp.godaddy.com
7	crl.godaddy.com

UDP RECOMMENDATION

UDP must be allowed outbound. It provides superior audio/video quality over TCP by favouring timeliness over retransmission — consistent with how humans perceive media.

⚠ Security: Ports 3478/5349 only accept inbound traffic after an outbound request. All connections are client-initiated.

LOCAL ENVIRONMENT REQUIREMENTS

Electron App (localhost:5001)	USB / Peripheral Devices	Bluetooth Peripherals
Visionflex application service binds to localhost:5001. Ensure no firewall or security software blocks loopback traffic. Antivirus exclusions may be required for the Visionflex install directory.	GEIS camera, microphone, and stethoscope connect via USB. Ensure USB device driver policies and endpoint protection software permit these device classes.	Bluetooth must be enabled for medical devices (pulse oximeter, thermometer, ECG, scale, glucose meter, BP monitor). Ensure pairing policies are not blocked by MDM.

PRE-GO-LIVE CHECKLIST

Network

- TCP port 443 open outbound
- UDP allowed (3478 and ideally 1025–65535)
- TCP/TLS port 5349 open for TURN fallback
- *.visionflex.com and Vonage domains whitelisted
- Min. 700 kbps per session (350 up + 350 down)

Local & Peripherals

- localhost:5001 accessible (loopback not blocked)
- USB camera, mic, stethoscope recognised by OS
- Bluetooth enabled; medical devices paired
- Antivirus/EDR exclusion applied to Visionflex dir

TESTING YOUR CONNECTIVITY

Pre-Call Test

Run the Vonage pre-call test from each deployment location prior to clinical use. It validates WebSocket connectivity, TURN relay availability, media send/receive, and estimated bandwidth.

Pre-call test tool:

tokbox.com/developer/tools/precall

Network connectivity requirements:

video-api.support.vonage.com