

Freedom Client Remote Access Guide

This document outlines the most common options and requirements to allow the Freedom Client software to access recorders from a remote (off-site) location.

These two methods are 'NAT Port-forwarding' and VPN

NAT Port-forwarding requirements at the recorder location

- The internet connection requires either a 'Static public IP address', or DDNS (Dynamic DNS) hostname. A static public IP address must be obtained from your ISP (Internet Service Provider) that you are using at the remote site. A Dynamic DNS hostname can be obtained from many different providers, [DynDNS](#) being one of the more well-known providers.
- After you have obtained either a 'static public IP address' or a DDNS address, your I.T person needs to login to the router and configure port-forwarding.
- If you use the DDNS option, your I.T person needs to login to the router and configure your DDNS account settings (username and password).

Your I.T person needs to forward the TCP and HTTP ports as configured on your recorder to the recorders internal IP address, these are all TCP type ports. If you have multiple recorders at a site the ports should not be the same, for example if the first recorder has a TCP port of 37771, the second could be 37772. The recorders internal IP address should be configured with a static IP address (not DHCP) that is within the routers internal IP range.

Omega Recorder ports that need to be forwarded highlighted in green. Navigate to Settings → Network → Port These maybe different on your recorder	Freedom Server Recorders ports that need to be forwarded. Navigate to Setup → System Setup → Advanced. These maybe different on your recorder																																								
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VPN (Virtual Private Network) requirements at the recorder location

To use a VPN, your I.T person needs to establish a VPN connection to the remote site. This usually requires either a router that supports VPN, or a PC or network device configured to support VPN. This option does NOT require any static public IP, DDNS or port-forwarding. You just need to make sure that you have established the VPN connection before attempting to view cameras from the remote site.

Freedom Client Configuration for off-site devices

To configure the Freedom Client software to use the 'sub-stream' by default, navigate to *Setup* → *Device Setup* and under the 'Default Live Video' option select 'Sub stream'. If using a Public IP or DDNS method also tick the 'default' option to the right of 'Public IP:' as pictured below.

The screenshot shows the 'Device Setup' tab for a device named 'Site Name - DVR-1'. The 'Advanced' button is highlighted with a blue circle 'A'. The 'Public IP' field contains '123 . 123 . 123 . 123' and has a 'default' radio button selected. The 'Domain Name' field contains 'yourdomainname.org'. The 'Private IP' field contains '192 . 168 . 1 . 201' and has a 'default' radio button selected. The 'Default Live Video' dropdown is set to 'Sub Stream (recommended for WAN Viewing)'. Callouts provide instructions: 'If using a static public IP address, fill in the public IP address here. If using VPN or DDNS this can be left blank', 'If using DDNS, tick 'Domain Name' and enter your DNS name here', 'If using VPN, you just need the private IP (default ticked) & TCP populated', and 'Default Live Video setting'.

Important! normally 'sub-stream' is not recorded on Omega recorders, but if sub-stream is being recorded you need to click on the 'Advanced' button (A) and tick the 'Change sub-stream record mode priority' option.

Changing to 'main-stream on the fly' in live-view

Below: right-click over a video and select 'Main-stream' to change.

The screenshot shows a context menu over a video tile. The 'Main Stream' option is highlighted in yellow. A callout box says: 'In Live-view to change to the higher quality stream, right-click over a video tile and select 'Sub Stream''.

Configuring sub-stream encoding settings on the Recorder

The quantity of cameras that can be displayed simultaneously will be limited by the internet 'upload bandwidth' at the recorder site.

When viewing cameras 'live' offsite, by default the lower quality sub-stream is used, so it's important that you configure the sub-stream encoding settings on your recorder appropriately as to not exceed the limitations of the remote sites upload bandwidth. The settings pictured below provide a good balanced option that will work on many modern internet connections.

The screenshot shows the 'CAMERA' configuration page with the 'Audio/Video' tab selected. The 'Channel' dropdown is set to '1'. The 'Encode' option is highlighted in the left sidebar. The 'Sub Stream' settings are configured as follows:

Parameter	Main Stream	Sub Stream
Smart Codec		<input checked="" type="checkbox"/>
Type	General	
Stream Type		Sub Stream 1
Compression	H.264H	H.264H
Resolution	1920x1080(1080P)	704x576(D1)
Frame Rate(FPS)	8	4
Bit Rate Type	CBR	CBR
Quality		5
I Frame Interval		2sec.
Bit Rate(Kb/S)	Custom	Custom
	1920	256

A callout box points to the 'Channel' dropdown with the text: 'Change for each channel'.