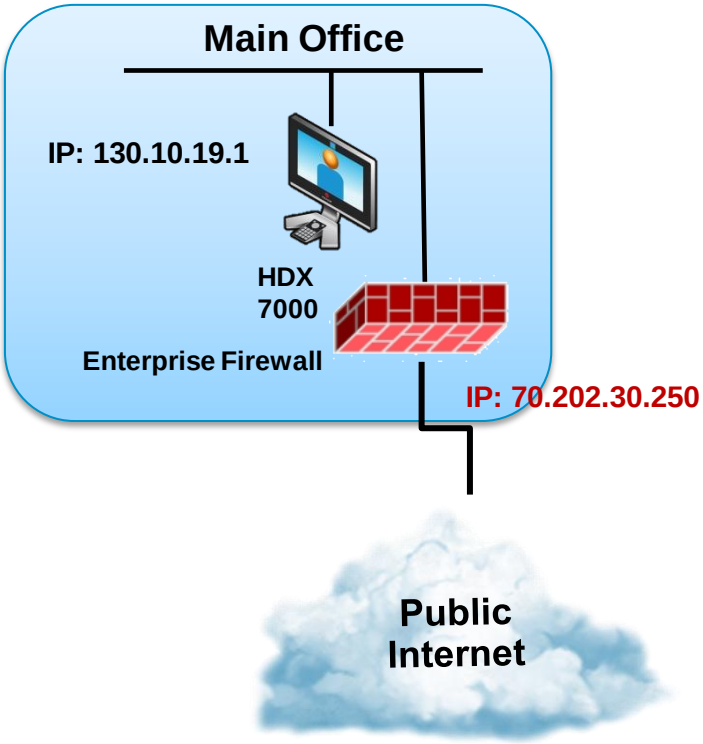
POLYCOM®

Polycom® RealPresence™ Ready Firewall Traversal Tips

Firewall Traversal Summary

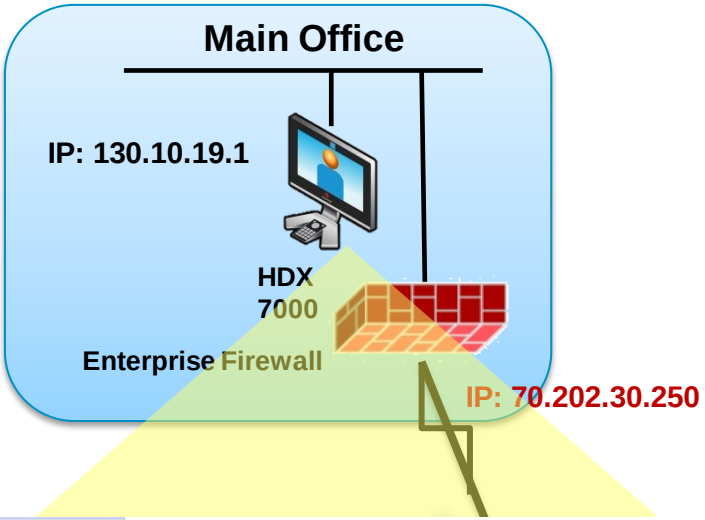
- In order for your system to communicate with end points in other sites or with your customers the network firewall in all you sites may have to be configured to allow video traffic
- There are a few different options to do this:
  - Option 1: Set up the room system in a De Militarized Zone (DMZ)
  - Option 2: Open Firewall Ports to allow incoming and outgoing video traffic
  - Option 3: Polycom Video Border Proxy (VBP) provides the most flexible option providing secure traversal for video traffic while ensuring that you experience the highest quality of service

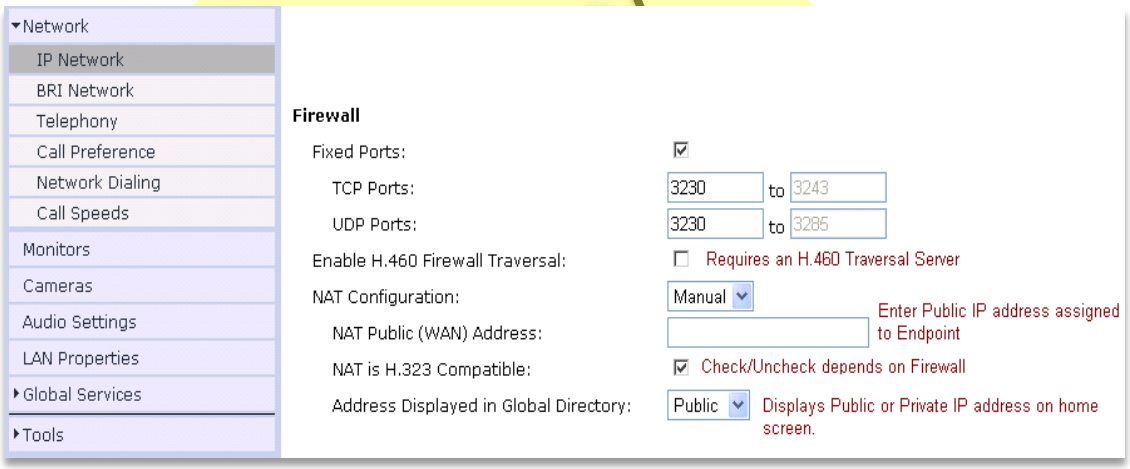
HDX Configuration – Step 1
Fixed IP for the HDX



- Allocate a Fixed IP Address to the HDX – example 130.10.19.1
- Using dynamic IP address or DHCP could make traversal complicated

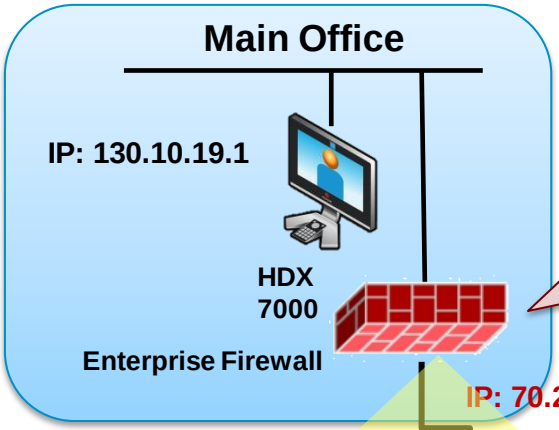
HDX Configuration – Step 2 Configure 1:1 NAT in HDX





- If the sites do not have VPN or if Polycom VBP is not installed the HDX may have to be configured for 1:1 Network Address Translation (NAT)
- Configure the HDX to use fixed ports
- Select “Auto” under NAT configuration
- System will automatically detect the public IP address and display it

Firewall Configuration – Option 1
Configure Firewall to place the HDX in a DMZ

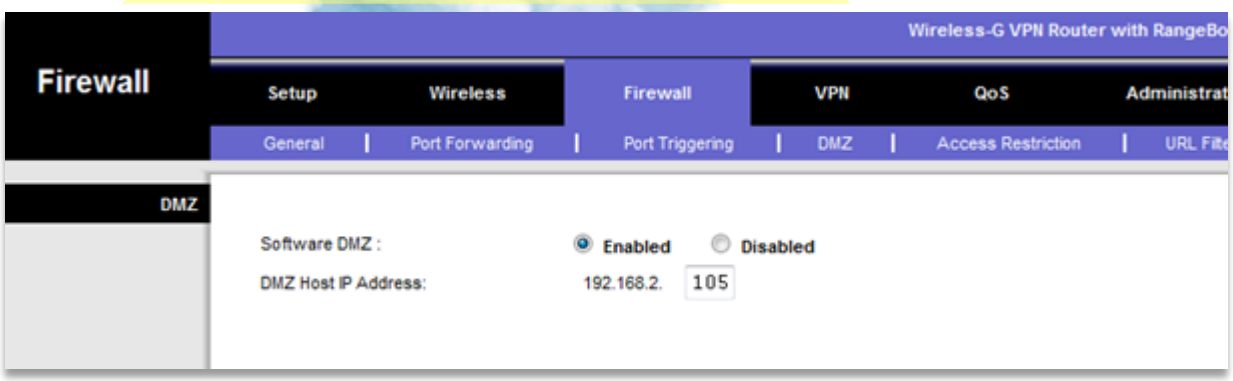


Most firewall allow one system inside the firewall to be placed in the DMZ.

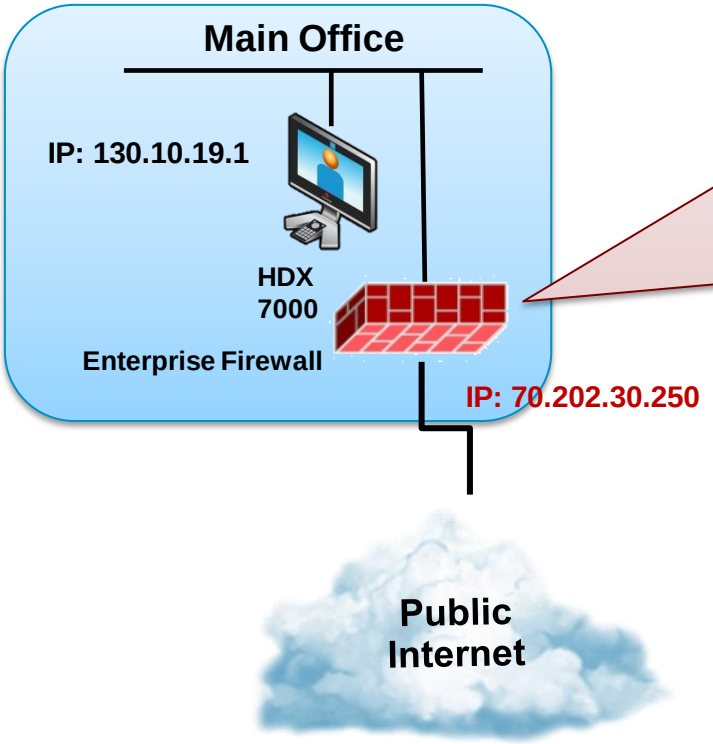
DMZ is a firewall configuration that opens all ports through the router to a specific computer and places the computer outside of the firewall. Other devices within the network remain within the protection of the firewall.

If the HDX is configured to be in the DMZ the firewall automatically routes video traffic to the HDX internal IP address

DMZ option is viable if there is one room system in the site



Firewall Configuration – Option 2
Configure Firewall to allow video traffic



If the system cannot be put in a DMZ, firewalls allow specific ports to be opened within the firewall to allow video traffic bi-directionally

<u>Following ports must be opened</u>

Inbound TCP: 1720, 3230 – 3243

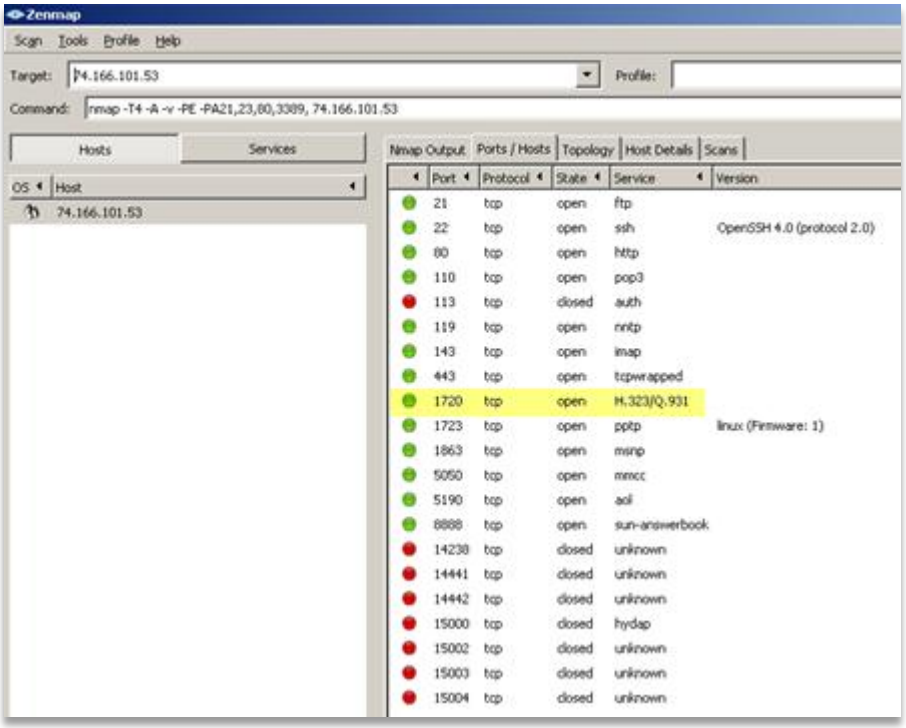
Inbound UDP: 3230 – 3285

Outbound TCP: ANY

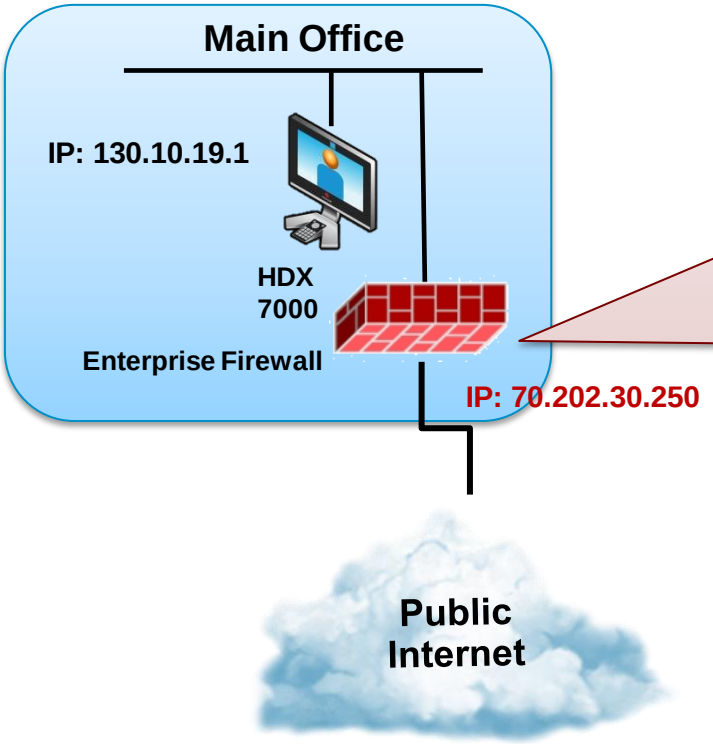
Outbound TCP: ANY

Firewall Configuration – Option 2
Confirm if firewall ports are open

- Download the free open source port scanner program to check if the ports are open
  - http://wareseeker.com/Network-Tools/zenmap-4.65.zip/3511110



Firewall Configuration – Option 2
Disable H.323 aware helpers in the firewall

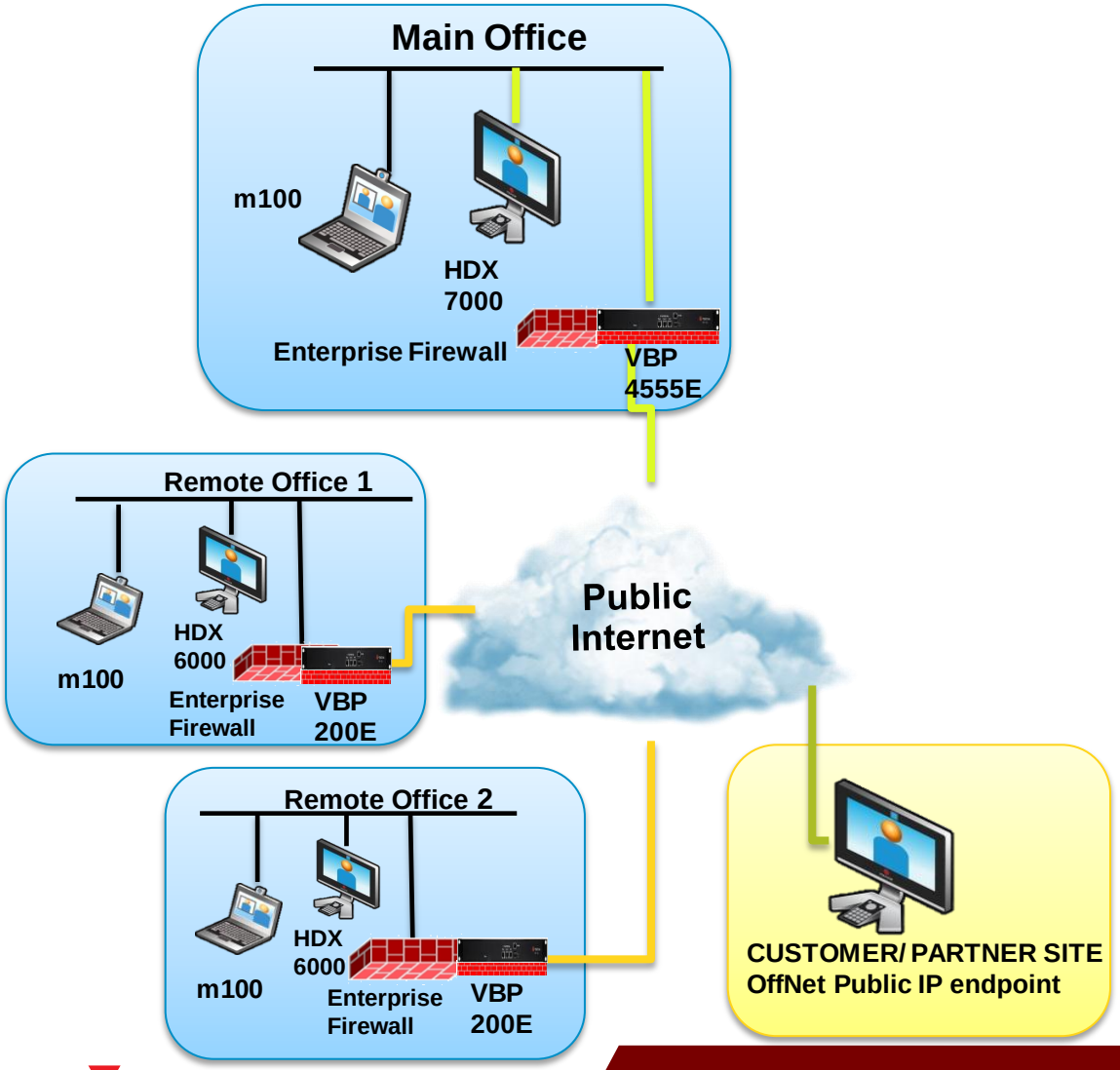


Some firewalls are H.323 aware (H.323 is one of the protocols used to setup calls).

H.323 aware services may block video traffic. H.323 aware helper services may need to be disabled.

Also H.323 fixups or deep packet inspections may also need to be disabled.

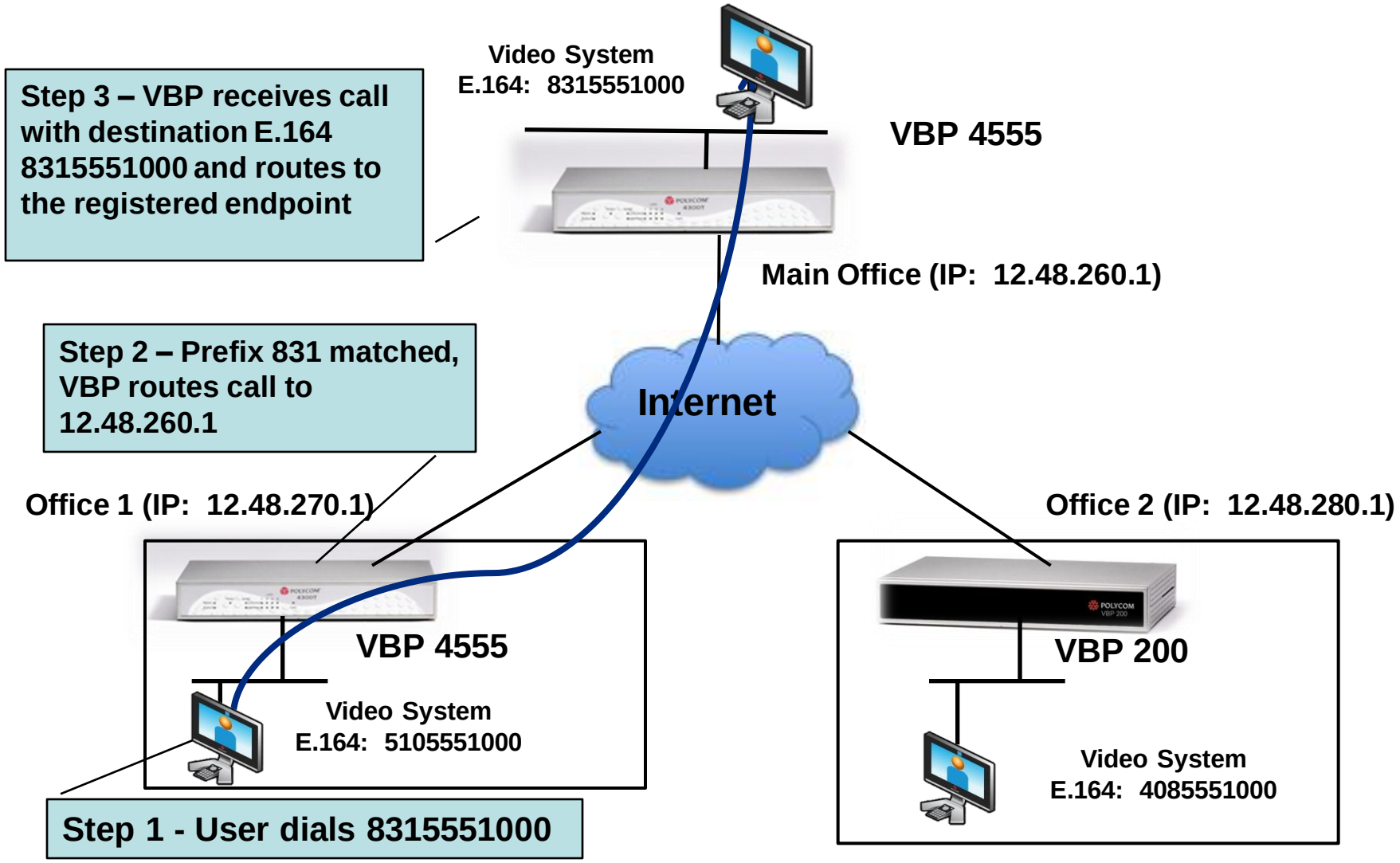
Polycom VBP – Option 3
Most flexible internal + B2B configuration



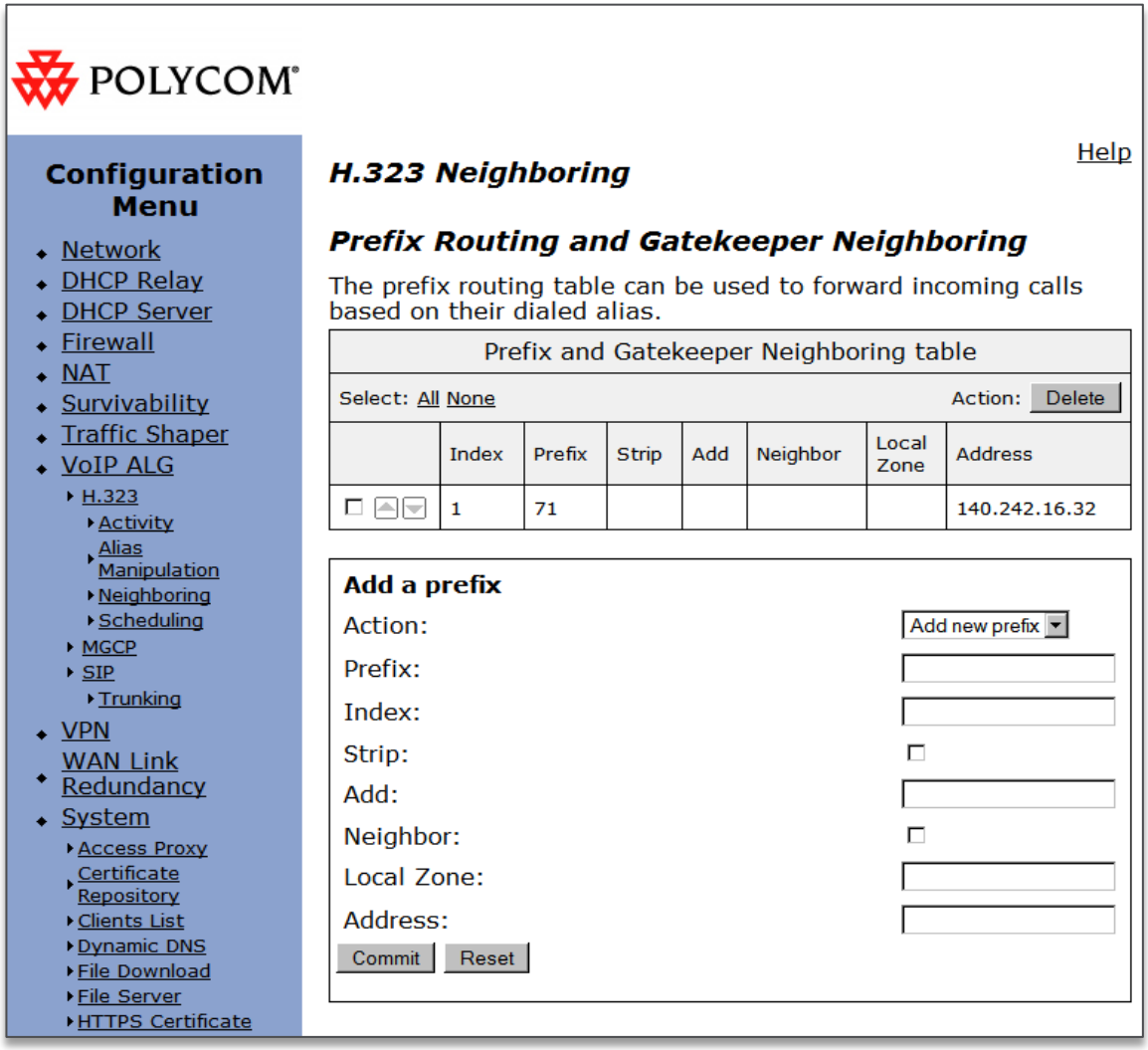
- Supplement or replace firewall with Polycom VBP
- If the existing firewall is kept then all that needs to be done is configure DMZ to allow VBP to sit in a DMZ or place it in parallel to existing FW
- No need to configure 1:1 NAT in HDX
- End points register to VBP making it easier for them to communicate
- VBP prioritizes and shapes traffic optimizing the experience for video

Polycom VBP – Option 3

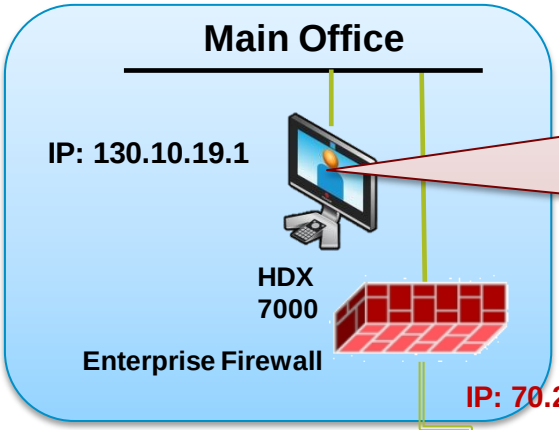
Quick Configuration with VBP - Prefix Routing Call Flow



PolyCom VBP – Option 3
VBP H.323 Prefix/Neighboring Routing



Final Step
Place a test call through Polycom Test system



Place a video call from the HDX using the remote or web

Type following IP address: **140.242.250.205**

Choose H.323 for the call type

If the connections are open you should see a self running video with audio on Polycom solutions