WireLess Deployer Networking
VPN networks

1 Description

Using WireLess Deployer in different networks and sub-networks having VPN routers.

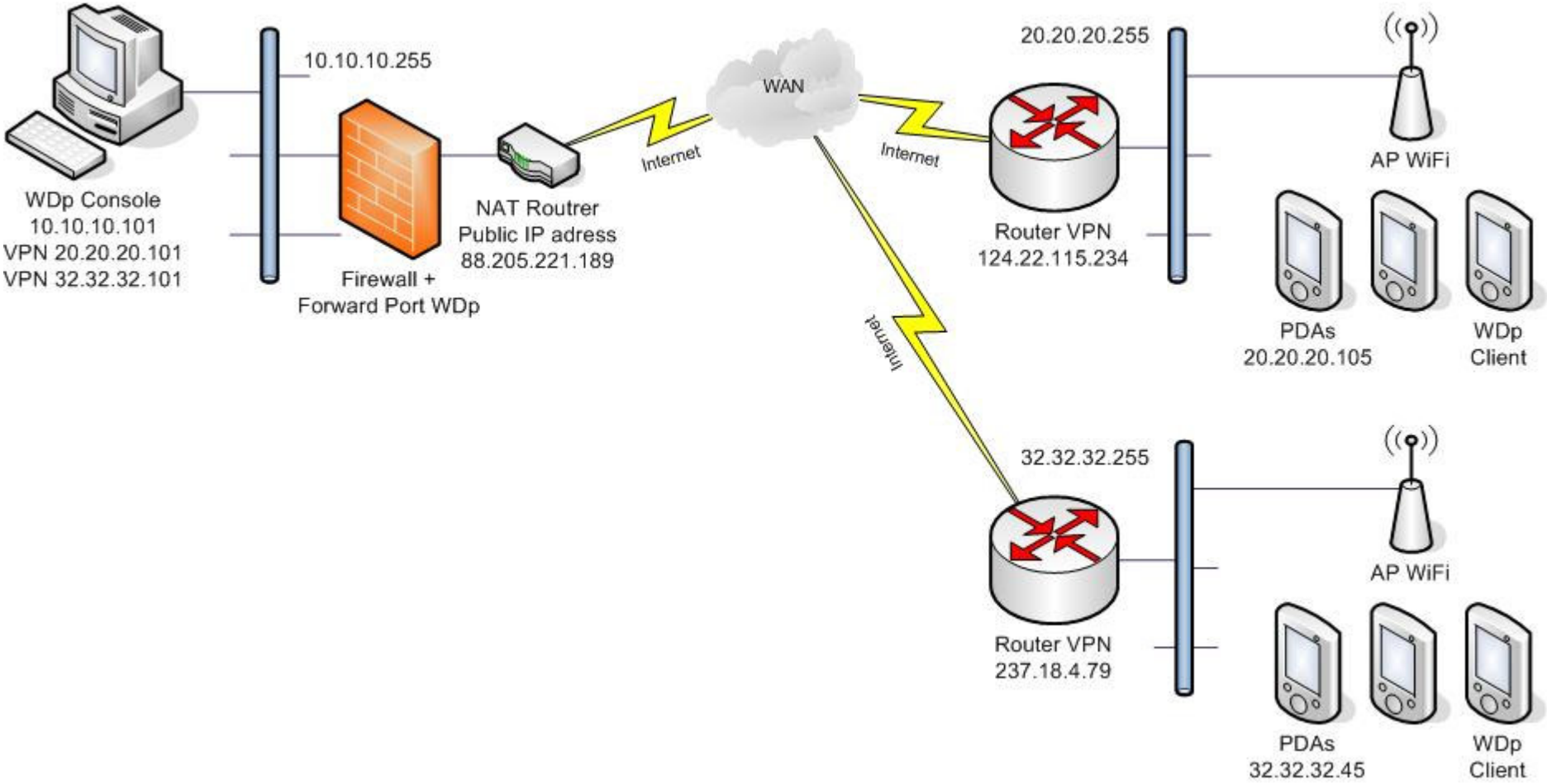
WDp Console network site
One central site.
The WDp Console is placed into a local network with firewall and router.
Hosts access the Internet through a NAT Router.
Access from Internet to a forwarded WDp port.
VPN software allows connecting WDp console host to remote subnets through VPN routers.

WDp Clients network sites
One or more peripheral sites.
The PDAs are placed into a local network with a VPN router.
PDAs access the Internet through a NAT Router.
Access from Internet to local PDAs (VPN hosts only).

Links
Public Network or dedicated links.

Questions
The WDp Console is accessible from Internet (through NAT public address).
The WDp Console is accessible from local network (through VPN address) when connected to VPN.
Console VPN connection will not be permanent.
The PDAs are accessible from Internet by VPN hosts only.
Broadcast packets from console are forwarded if VPN.
Multicast packets from console are forwarded if VPN.
Broadcast packets from PDAs are forwarded if VPN.

2 Synoptic


10.10.10.255
WDp Console
10.10.10.101
VPN 20.20.20.101
VPN 32.32.32.101
Firewall +
Forward Port WDp
NAT Routrer
Public IP adress
88.205.221.189
Internet
WAN
Internet
Internet
20.20.20.255
Router VPN
124.22.115.234
AP WiFi
PDAs
20.20.20.105
WDp
Client
32.32.32.255
Router VPN
237.18.4.79
AP WiFi
PDAs
32.32.32.45
WDp
Client

3 WDp Console network site

3.1 Subnet

Local LAN with local IP addresses (i./e. 10.10.10.255).
Public WAN IP assigned by ISP (i./e. 88.205.221.189).

3.2 WDp Console Host

Local LAN IP address (i./e. 10.10.10.101).
Local VPN IP address (i./e. 20.20.20.101 if VPN 1 connected).
Local VPN IP address (i./e. 32.32.32.101 if VPN 2 connected).
WDp console and WDp Agent installed.
One or more VPN software installed.

3.3 NAT Router

Local LAN IP address (i./e. 10.10.10.200).
Public WAN IP address (i./e. 88.205.221.189).
Port forwarding WDp (8128) to WDp Console host (10.10.10.101).

4 WDp Clients network sites

4.1 Subnet

Local LAN with local IP addresses (i./e. 20.20.20.255, 32.32.32.255).
Public WAN IP assigned by ISP (i./e. 124.22.115.234, 237.18.4.79).

4.2 WDp Clients PDAs

Local LAN IP address (i./e. 20.20.20.105, 32.32.32.45).
WDp Client installed.

4.3 VPN Router

Local LAN IP address (i./e. 20.20.20.200, 32.32.32.200).
Public WAN IP address (i./e. 124.22.115.234, 237.18.4.79).
Allows to connect foreign hosts by VPN.
No port forwarding.

5 WireLess Deployer Functions

5.1 Available Functions (VPN Disconnected)

Packet deployment from PDA by users (Launcher – [Update]).
Packet deployment from PDA by schedule.
Remote Control request from PDA [RC]) (May be useful to request RC, then administrator connects to VPN).
List reporting from PDA by schedule (State and statistics).
PDA Packet statistics.
PDA System statistics.

5.2 Unavailable Functions (VPN Disconnected)

Packet deployment from Console by administrator (Update Units [All]).
Packet deployment from Console by administrator (Update Units [This]).
Packet deployment from Agent by schedule.
List reporting from Agent by periodic schedule (State and statistics).
Text messages from Console ([All] [Unit]).
Execute actions from Console ([Execute Action]).
Remote Control from Console ([Remote Control]).
Reset Unit from Console ([Reset Unit]).

5.3 Available Functions (VPN Connected)

Packet deployment from PDA by users (Launcher – [Update]).

Packet deployment from PDA by schedule.
List reporting from PDA by schedule (State and statistics).
Packet deployment from Console by administrator (Update Units [All]).
Packet deployment from Console by administrator (Update Units [This]).
Packet deployment from Agent by schedule.
List reporting from Agent by periodic schedule (State and statistics).
Text messages from Console ([All] [Unit]).
Execute actions from Console ([Execute Action]).
Remote Control from Console ([Remote Control]).
Remote Control request from PDA [RC]).
Reset Unit from Console ([Reset Unit]).
PDA Packet statistics.
PDA System statistics.

5.4 Unavailable Functions (VPN Connected)

None.

5.5 Packet Deployment strategy

- Packets will be deployed by PDA user requests with launcher.
- Packets will be deployed by PDA periodic requests
- Packets will be deployed by Console commands when VPN is connected.

The strategy to deploy packets will be to schedule an update when PDAs are not used. If new packets are found it will be automatically installed into PDAs.

Console-initiated commands (AutoList / AutoUpdate / SleepingUnits) will be used if VPN connection is intended to be permanent.

If VPN will not be permanent, it is recommended to set the public NAT IP address as host name in the PDAs.

5.6 Statistics data

Statistics will be collected by “List” commands.
If PDA statistics are needed, it will be suitable to program periodic connections in the WDp Client to get PDA states.

6 Configuration

6.1 WireLess Deployer Console configuration

[Agent]
WizardEnable=0
Wizard host discovery is available from PDAs only if VPN is connected.
AutoUpdate=No
PDA are accessible from Console only if VPN is connected.
AutoList=No
PDA are accessible from Console only if VPN is connected.
AutoListTime=
Set if AutoList=Yes.
SleepingUnitsPolling=No
PDA are accessible from Console only if VPN is connected.
SleepingUnitsPeriod=0
Disable, units are accessible from Console only if VPN is connected.
ListMissingTime=180
Set if AutoList=Yes.
SiteGuessMask=24
Useful to place units in sites from different networks. Check the mask length.

6.2 WireLess Deployer PDA configuration

[connection]
ServerIp = 88.205.221.189 (if VPN may be disconnected). Or 20.20.20.101 if VPN is intended to be always connected.

Recommended, units will not discover the Console host if VPN is not connected.
Choose VPN address or NAT public address following VPN is always connected or not.
ServerPort = 8128
Mandatory.
WizardEnable = No / **Yes**
Auto discovery wizard is available only if VPN is connected.
WizardPort = 8128
Set if WizardEnable=Yes.
ConnType = Ethernet
By Ethernet.
GprsConnName=
Irrelevant.
GprsConnMode=DH
Irrelevant.

[autoUpdate]
DoPeriodic= yes
Useful to have state of PDAs or updates.
Period = 30
Set a period, consider battery consumption by wake-up.
PeriodicCommand = L
Recommended to do a List (or update) command.
DoSchedule = Yes
Useful to made updates at fixed times, when PDAs are not used.
ScheduleCommand = U
Recommended to do an Update.

[schedule]
Fill the schedule list.