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NAPT

(SV8100 version 6.0 or higher)

NAPT, or **Network Address Port Translation**, is a method by which a private address or addresses and their TCP/UDP ports are translated into a single public address and its TCP/UDP ports. In the case of IP phones with the SV8100 it allows their connection to a public (internet) IP address which is then converted back to the private (non-internet) IP address on the customers network. The translation is available at the SV8100 end as well as at the remote IP Phone end of the connection if required. The feature is **NOT** available for IP-CCIS and Netlink connections.

Note 1: The NAPT (Network Address Port Translation) requires a license pre-loaded to the CP00. **License code 0031** must have a quantity of 1 and can be confirmed with CM 10-50-01 or via PCPro or WebPro.

Note 2: The new NAPT feature is only available when using an IPLB card. If an IPLA card is inserted the old NAPT method must be used.

CPU Setup



Step 1:

Enable command 10-46-14

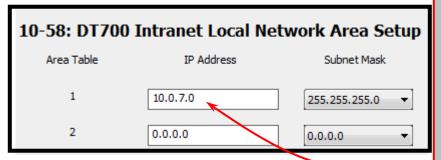
Step 2:

Command **10-12-07** assign the routers WAN IP (Public) address the SV8100 resides behind. **Note:** CM **10-12-06** is not required for NAPT to IP stations. This should only be selected when utilizing NAPT for SIP trunks to a provider. This public IP address provided by the ISP **MUST** be static and should not change.

10-12: CD-CP00 Network Setup	
01 - IP Address	0.0.0.0
03 - Default Gateway	192.168.1.1
06 - NAPT Router	
07 - NAPT Router IP Address	15.0.0.6
09 JPLA IP Address	192.168.1.10
10 - IPLA Subnet Mask	255.255.0.0 ▼

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Optional Step 2a:

If there are other networks connected to this system that are not to be routed through the NAT translations then these networks must be identified in command 10-58.

An **example** of this would be if you had Remote IP Phones setup in a distant network that connected to the MAIN site through VPN. In this scenario you do not want the traffic for the VPN to run through the NAT translations so the destination address would be assigned.

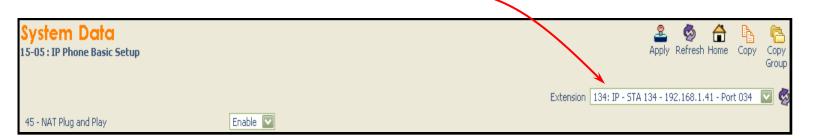
Step 3:

Command 15-05-45, per IP phone using this feature, must be set to ENABLE.

If this program is set to **DISABLE** then port forwarding at the Remote location **will** be required.

If this program is set to **ENABLE** then port forwarding at the Remote location **IS NOT** required.

Note – Port forwarding at the MAIN site is still required in both modes.

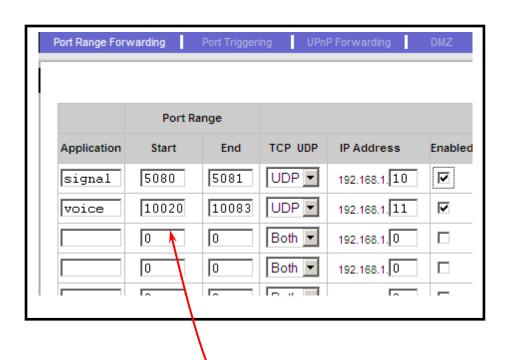


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Router Setup - SV8100 Site





Step 1:

Port Forwarding must be done in the router that the SV8100 resides behind. The above screen shot is an example of a typical GUI setup available with most routers that can perform the NAPT function.

Ports 5080 & 5081 must be forwarded to the IP address in command 10-12-09.

Ports 10020 - 10051 must be forwarded to the first IP address in command 84-26.

Ports 10052 – 10083 must also be assigned to the first IP address in command 84-26.

The above example is for a 32IPLB. A 64IPLB or 128 IPLB would required the assignment of additional port numbers as defined in command 84-26.

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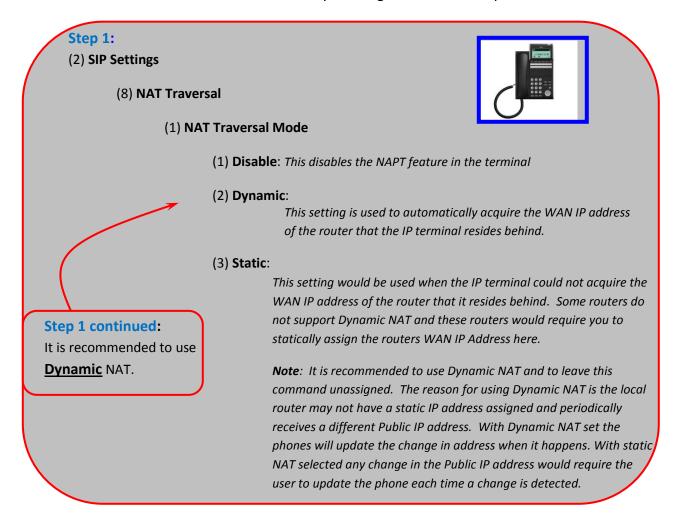
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IP Terminal Setup

Note: Terminals must be version 3.0.0.0 or higher to support the NAPT feature

The below settings are assigned via the configuration mode of the IP Terminal. They can also be set up via a GUI by browsing to the IP address of the terminal.

To enter this mode hold down the **MENU** key. The login is **ADMIN** and password **6633222**



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Step 2:

(2) SIP Settings

(8) NAT Traversal

(3) WAN Settings

(1) WAN Mate IP Address:

Assign the **WAN IP address** that is assigned in

command **10-12-07**.

Note: This is the WAN Address of the router the

SV8100 resides behind.

(2) WAN SIP Mate Port:

Change this to **5080**

Note: This is the port number assigned in command

10-46-06

(3) WAN Self IP Address:

If the phone is set to **Static NAT**, then assign the

WAN IP Address of the router that the IP Phone

resides behind.

Note: If the phone is set to Dynamic NAT, leave this set

to 0.0.0.0

Step 3:

Save all the settings and allow the phone to reset and test.

The IP terminal should then come online and have speech path in both directions on a call in progress.

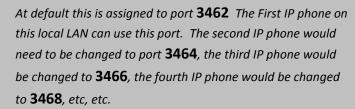
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Multiple IP Phones behind the same NAT

Step 1:

- (1) Network Settings
 - (6) Advanced Settings
 - (5) Self Port Settings
 - (1) RTP Self Port:



(2) SIP Self Port:

At default this is assigned to port **5060**. The first IP phone on this local LAN can use this port. The second IP phone would need to be changed to port **5062**, the third IP phone would be changed to **5064**, the fourth IP phone would be changed to **5066**, etc, etc.

Save these settings and reset the IP phone. If the first IP phone came online using Dynamic NAT then the other phones should follow also using Dynamic NAT.

Note – The above settings are only required when multiple NAPT phones are setup on the same Remote location. If there are NAPT phones at multiple remote locations, containing only 1 phone at each site, then the ports do not have to be re-assigned.

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