

## Configuring Port Forwarding for IPsec VPN Pass-through on TA 600s Performing NAT

### Overview:

The TA 600 can support pass-through of a single VPN tunnel. If more than one tunnel is attempted, no tunnel will work properly.

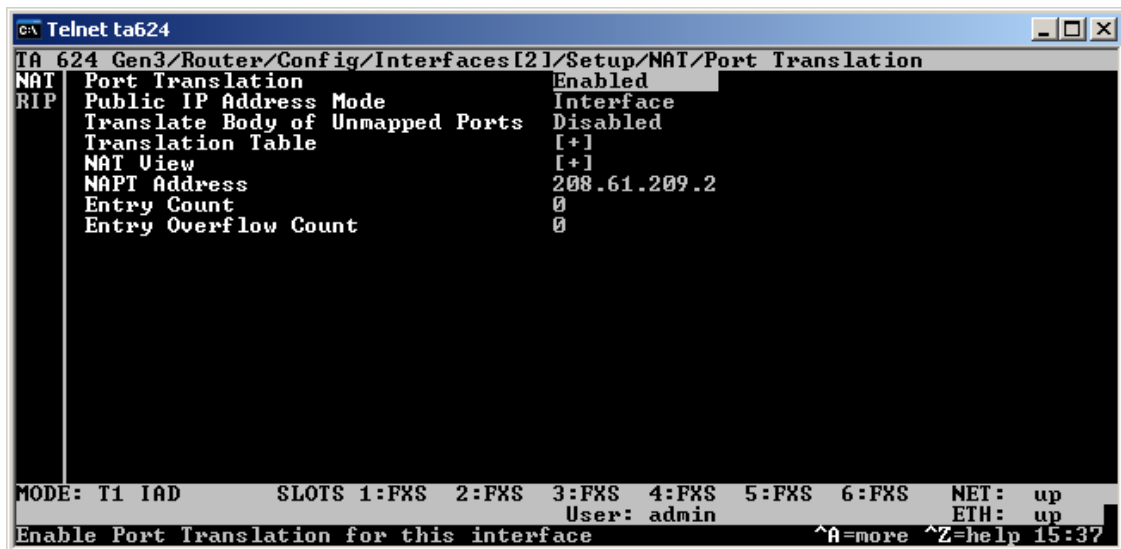
This guide assumes that NAT is already configured and working properly on the TA 600.

### Configuration Steps:

1. Configure the translation table entry for ISAKMP
2. Configure the translation table entry for IPsec NAT-Traversal
3. Configure the translation table entry for ESP (Encapsulated Security Payload)

### Configure the translation table entry for ISAKMP

1. Enter the NAT menu by pressing *Ctrl+N*



```

c:\ Telnet ta624
TA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Port Translation
NAT Port Translation Enabled
RIP Public IP Address Mode Interface
Translate Body of Unmapped Ports Disabled
Translation Table [+]
NAT View [+]
NAPT Address 208.61.209.2
Entry Count 0
Entry Overflow Count 0

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS NET: up
User: admin ETH: up
Enable Port Translation for this interface ^A=more ^Z=help 15:37
```

2. Arrow down to *Translation Table* and hit Enter

```
TA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table
NAT Port Translation Enabled
RIP Public IP Address Mode Interface
    Translate Body of Unmapped Ports Disabled
    Translation Table [+]
    NAT Uiew [+]
    NAT Address 208.61.209.2
    Entry Count 0
    Entry Overflow Count 0

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up
User: admin ETH: up
Translation Table List ^A=more ^Z=help 15:38
```

```
TA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table
Translation Table Pub A/Mode Pub Addr Prot Mode Prot Prot Type P
NAT Uiew

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up
User: admin ETH: up
Translation Table List INS ^A=more ^Z=help 15:38
```



- If the IP address you will be bringing the tunnel up to is the same IP address that is on your WAN interface, leave *Public Address Mode* set to *NAPT Addr*. If the public address you are bringing the tunnel up to is different from the IP on your WAN interface, change the *Public Address Mode* to *Specified* and then set the IP address.

```

c:\ Telnet ta624
IA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[1]
Translation Table[1] Public Address Mode NAPT Addr
                    Protocol Mode NONE
                    Private Address Mode Any Internal
                    Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up *
                    User: admin ETH: up
                    INS/DEL ^Z=help 15:43

```

-- OF --

```

c:\ Telnet ta624
...outer/Config/Interfaces[2]/Setup/NAT/Translation Table[1]/Public Address Mode
Translation Table[1] Public Address Mode Specified
                    Public Address 0.0.0.0
                    Protocol Mode NONE
                    Private Address Mode Any Internal
                    Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS NET: up *
                    User: admin ETH: up
                    Public address to use or look at in translation ^A=more ^Z=help 15:43

```

```

c:\ Telnet ta624
...en3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[1]/Public Address
Translation Table[1] Public Address Mode Specified
                    Public Address 208.61.209.5
                    Protocol Mode  NONE
                    Private Address Mode Any Internal
                    Translate Body  No

MODE: T1 IAD          SLOTS 1:FXS  2:FXS  3:FXS  4:FXS  5:FXS  6:FXS  NET: up  *
                               User: admin  ETH: up
Public IP Address used for translating this entry ^A=more ^Z=help 15:44

```

5. Next, set the *Protocol Mode* to *TCP or UDP*

```

c:\ Telnet ta624
...Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[1]/Protocol Mode
Translation Table[1] Public Address Mode Specified
                    Public Address 208.61.209.5
                    Protocol Mode  TCP or UDP
                    Public Port Mode Any Port
                    Private Address Mode Any Internal
                    Private Port Mode Any Port
                    Translate Body  No

MODE: T1 IAD          SLOTS 1:FXS  2:FXS  3:FXS  4:FXS  5:FXS  6:FXS  DSX: up  *
                               User: admin  ETH: up
Protocol being translated ^A=more ^Z=help 15:45

```

6. Then set the *Public Port Mode* to *Specified*

```
C:\ Telnet ta624
...3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[1]/Public Port Mode
Translation Table[1] Public Address Mode Specified
Public Address 208.61.209.5
Protocol Mode TCP or UDP
Public Port Mode Specified
Public Port Start 0
Public Port End 0
Public Port Type
Private Address Mode Any Internal
Private Port Mode Any Port
Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS NET: up *
User: admin ETH: up
How the Public Port is looked at ^A=more ^Z=help 15:46
```

7. Then set *Public Port Start* and *Public Port End* to 500. *Public Port End* should be filled in automatically when you enter *Public Port Start*.

```
C:\ Telnet ta624
.../Router/Config/Interfaces[2]/Setup/NAT/Translation Table[1]/Public Port Start
Translation Table[1] Public Address Mode Specified
Public Address 208.61.209.5
Protocol Mode TCP or UDP
Public Port Mode Specified
Public Port Start 500
Public Port End 500
Public Port Type
Private Address Mode Any Internal
Private Port Mode Any Port
Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up *
User: admin ETH: up
Public Port Number ^A=more ^Z=help 16:06
```

8. Set *Private Address Mode* to *Specified*.

```
C:\ Telnet ta624
...uter/Config/Interfaces[2]/Setup/NAT/Translation Table[1]/Private Address Mode
Translation Table[1] Public Address Mode Specified
Public Address 208.61.209.5
Protocol Mode TCP or UDP
Public Port Mode Specified
Public Port Start 500
Public Port End 500
Public Port Type
Private Address Mode Specified
Private Address 0.0.0.0
Private Port Mode Any Port
Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up *
User: admin ETH: up
Private address mode ^A=more ^Z=help 16:07
```

9. Set *Private Address* to the address that you want the VPN traffic to be forwarded to. In this example, we are using 192.168.1.253.

```
C:\ Telnet ta624
...n3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[1]/Private Address
Translation Table[1] Public Address Mode Specified
Public Address 208.61.209.5
Protocol Mode TCP or UDP
Public Port Mode Specified
Public Port Start 500
Public Port End 500
Public Port Type
Private Address Mode Specified
Private Address 192.168.1.253
Private Port Mode Any Port
Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up *
User: admin ETH: up
Private IP Address used for translating this entry ^A=more ^Z=help 16:07
```

- Set *Private Port Mode* to *Specified*. *Private Port* should automatically populate with 500 when *Private Port Mode* is set to *Specified*. However, if this does not happen, set *Private Port* to 500.

```

c:\ Telnet ta624
.../Router/Config/Interfaces[2]/Setup/NAT/Translation Table[1]/Private Port Mode
Translation Table[1] Public Address Mode Specified
Public Address 208.61.209.5
Protocol Mode TCP or UDP
Public Port Mode Specified
Public Port Start 500
Public Port End 500
Public Port Type
Private Address Mode Specified
Private Address 192.168.1.253
Private Port Mode Specified
Private Port 500
Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up *
User: admin ETH: up
How the Private Port is looked at ^A=more ^Z=help 16:07

```

- Press the letter **h** to get back to the main menu so that the config will be saved

### Configure the translation table entry for IPsec NAT-Traversal

- Enter the NAT menu by pressing *Ctrl+N*

```

c:\ Telnet ta624
TA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Port Translation
NAT Port Translation Enabled
RIP Public IP Address Mode Interface
Translate Body of Unmapped Ports Disabled
Translation Table [+]
NAT View [+]
NAPT Address 208.61.209.2
Entry Count 0
Entry Overflow Count 0

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS NET: up
User: admin ETH: up
Enable Port Translation for this interface ^A=more ^Z=help 15:37

```



2. Arrow down to *Translation Table* and hit Enter

```
TA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table
NAT Port Translation Enabled
RIP Public IP Address Mode Interface
    Translate Body of Unmapped Ports Disabled
    Translation Table [+]
    NAT Uiew [+]
    NAT Address 208.61.209.2
    Entry Count 0
    Entry Overflow Count 0

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up
User: admin ETH: up
Translation Table List ^A=more ^Z=help 15:38
```

```
TA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table
Translation Table
NAT Uiew
1 Pub A/Mode Pub Addr Prot Mode Prot Prot Type P
  Specified 208.61.209.5 TCP or UDP

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up
User: admin ETH: up
Translation Table List ^A=more ^Z=help 16:09
```

- Press the right arrow key and then press highlight the index number of the entry you just created for PPTP. Then press the letter **c** to copy the values from that translation table entry.

The screenshot shows a Telnet window titled 'Telnet ta624'. The command prompt is 'IA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[1]'. The screen displays a 'Translation Table' with the following data:

Index	Pub A/Mode	Pub Addr	Prot Mode	Prot	Prot Type	P
1	Specified	208.61.209.5	TCP or UDP			

The status bar at the bottom shows 'MODE: T1 IAD', 'SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS', 'DSX: up', 'ETH: up', 'User: admin', and 'INS/DEL ^Z=help 16:10'.

- Next, press the letter **i** to add a blank translation table entry. With the index number of the blank entry highlighted (which should happen automatically), press the letter **p** to past the contents you just copied from the other entry. This will allow the translation table entry for GRE to be created more easily. After pressing the letter **p**, hit Enter to display the translation table entry.

The screenshot shows the same Telnet window after adding a second entry. The command prompt is 'IA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[2]'. The screen displays a 'Translation Table' with the following data:

Index	Pub A/Mode	Pub Addr	Prot Mode	Prot	Prot Type	P
1	Specified	208.61.209.5	TCP or UDP			
2	NAPT Addr		NONE			

The status bar at the bottom shows 'MODE: T1 IAD', 'SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS', 'DSX: up \*', 'ETH: up', 'User: admin', and 'INS/DEL ^Z=help 16:10'.



- Next, change the *Public Port End* to 4500. Then change the *Public Port Start* to 4500. Note that the *Public Port End* must be changed before the *Public Port Start*.

```

c:\ Telnet ta624
...n3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[2]/Public Port End
Translation Table[1] Public Address Mode Specified
Translation Table[2] Public Address 208.61.209.5
                    Protocol Mode TCP or UDP
                    Public Port Mode Specified
                    Public Port Start 500
                    Public Port End 4500
                    Public Port Type
                    Private Address Mode Specified
                    Private Address 192.168.1.253
                    Private Port Mode Specified
                    Private Port 500
                    Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up *
User: admin ETH: up
Public Port Number ^A=more ^Z=help 16:11

```

```

c:\ Telnet ta624
.../Router/Config/Interfaces[2]/Setup/NAT/Translation Table[2]/Public Port Start
Translation Table[1] Public Address Mode Specified
Translation Table[2] Public Address 208.61.209.5
                    Protocol Mode TCP or UDP
                    Public Port Mode Specified
                    Public Port Start 4500
                    Public Port End 4500
                    Public Port Type
                    Private Address Mode Specified
                    Private Address 192.168.1.253
                    Private Port Mode Specified
                    Private Port 500
                    Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS NET: up *
User: admin ETH: up
Public Port Number ^A=more ^Z=help 16:12

```

- Change the *Private Port* to 4500

```

c:\ Telnet ta624
... Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[2]/Private Port
Translation Table[1] Public Address Mode Specified
Translation Table[2] Public Address 208.61.209.5
Protocol Mode TCP or UDP
Public Port Mode Specified
Public Port Start 4500
Public Port End 4500
Public Port Type
Private Address Mode Specified
Private Address 192.168.1.253
Private Port Mode Specified
Private Port 4500
Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS NET: up *
User: admin ETH: up
Private Port Number ^A=more ^Z=help 16:12

```

7. Press the letter **h** to get back to the main menu so that the config will be saved.

### Configure the translation table entry for ESP (Encapsulated Security Payload)

1. Enter the NAT menu by pressing *Ctrl+N*

```

c:\ Telnet ta624
IA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Port Translation
NAT Port Translation Enabled
RIP Public IP Address Mode Interface
Translate Body of Unmapped Ports Disabled
Translation Table [+]
NAT View [+]
NAPT Address 208.61.209.2
Entry Count 0
Entry Overflow Count 0

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS NET: up
User: admin ETH: up
Enable Port Translation for this interface ^A=more ^Z=help 15:37

```

2. Arrow down to *Translation Table* and hit Enter

```
TA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table
NAT Port Translation Enabled
RIP Public IP Address Mode Interface
    Translate Body of Unmapped Ports Disabled
    Translation Table [+]
    NAT Uiew [+]
    NAT Address 208.61.209.2
    Entry Count 0
    Entry Overflow Count 0

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up
User: admin ETH: up
Translation Table List ^A=more ^Z=help 15:38
```

```
TA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table
Translation Table
NAT Uiew
1 Specified 208.61.209.5 TCP or UDP
2 Specified 208.61.209.5 TCP or UDP

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up
User: admin ETH: up
Translation Table List ^A=more ^Z=help 16:14
```

- Press the right arrow key and then press highlight the index number of the entry you created for ISAKMP. Then press the letter **c** to copy the values from that translation table entry.

```

c:\ Telnet ta624
IA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[1]
Translation Table
NAT View
1  Specified  208.61.209.5  TCP or UDP
2  Specified  208.61.209.5  TCP or UDP

MODE: T1 IAD      SLOTS 1:FXS  2:FXS  3:FXS  4:FXS  5:FXS  6:FXS  DSX: up
User: admin      ETH: up
INS/DEL          ^Z=help 16:14
  
```

- Next, press the letter **i** to add a blank translation table entry. With the index number of the blank entry highlighted (which should happen automatically), press the letter **p** to past the contents you just copied from the other entry. This will allow the translation table entry for GRE to be created more easily. After pressing the letter **p**, hit Enter to display the translation table entry.

```

c:\ Telnet ta624
IA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[3]
Translation Table
NAT View
1  Specified  208.61.209.5  TCP or UDP
2  Specified  208.61.209.5  TCP or UDP
3  NAPT Addr      NONE

MODE: T1 IAD      SLOTS 1:FXS  2:FXS  3:FXS  4:FXS  5:FXS  6:FXS  NET: up *
User: admin      ETH: up
INS/DEL          ^Z=help 16:14
  
```





5. Next, change the *Protocol Mode* to *Specified*

```
Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[3]/Protocol Mode
Translation Table[1] Public Address Mode Specified
Translation Table[2] Public Address 208.61.209.5
Translation Table[3] Protocol Mode Specified
                    Protocol 0
                    Protocol Type
                    Private Address Mode Specified
                    Private Address 192.168.1.253
                    Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS DSX: up *
User: admin ETH: up
Protocol being translated ^A=more ^Z=help 16:15
```

6. Set the *Protocol* to *50*

```
IA 624 Gen3/Router/Config/Interfaces[2]/Setup/NAT/Translation Table[3]/Protocol
Translation Table[1] Public Address Mode Specified
Translation Table[2] Public Address 208.61.209.5
Translation Table[3] Protocol Mode Specified
                    Protocol 50
                    Protocol Type ESP
                    Private Address Mode Specified
                    Private Address 192.168.1.253
                    Translate Body No

MODE: T1 IAD SLOTS 1:FXS 2:FXS 3:FXS 4:FXS 5:FXS 6:FXS NET: up *
User: admin ETH: up
Protocol Number ^A=more ^Z=help 16:15
```

Press the letter **h** to get back to the main menu so that the config will be saved.