

and are defined in the device configuration files, provided that the template files are created with the correct Device Management tags.

The device profile created in the previous section should be assigned to the BroadWorks user. Assigning the device profile to the user automatically causes the Device Management feature to generate the device configuration files for this user's device.

To assign the device profile to the user, browse to the BroadWorks <user> → *Addresses* page and set the parameters as described in the following table.

It is expected that parameters not identified in the following table are already set or are self-explanatory.

Parameter	Value	Description
Identity/Device Profile Name	<device-profile-name> Example: BSFT_IOP_SN4110	From the drop-down list, select the device profile instance created in the previous section.
Line/Port	<SIP register address-of-record> Example: 8881001023@as.iop1.broadworks.net	Supply the desired SIP register Address-of-Record.

Example User Addresses Settings

Figure 12 Assign Device Profile to User

5.2.5 Configure Edge Device

In many deployments, an edge device is deployed on the enterprise edge. Configure the edge device SIP server setting with the service provider's session border controller IP address or FQDN.

To integrate the edge device with Device Management, the SBC address tag (%SBC_ADDRESS%) defined in section 5.2.1.1 *Create System Default Tags* must be overridden at the group level with the LAN address of the edge device. At the *Group* → *Utilities* → *Configure Device* page, select the Patton device profile (example: Patton_SmartNode_2-8_FXS). Perform the following steps.

- 1) Click on the *Custom Tags* tab.
- 2) Click **Add**.

- 3) Add the SBC tag.
- 4) For the tag, enter "SBC_ADDRESS".
- 5) For the value, enter the IP address (that is, the edge device LAN IP address).
- 6) To save the tag data, click **OK**.

This Tag/Value is applied to all Patton model phones in the group using the modified *Device Profile Type*.

Repeat for each Patton model provisioned in the group.

5.2.6 Configure Patton SmartNode

This section describes the steps necessary to configure the Patton SmartNode for integrating with BroadWorks Device Management.

- 1) Connect to the SmartNode. You can access the SmartNode through Telnet/SSH using options A or B below, depending on the model of your SmartNode.
 - Ethernet port 0/0 acts as a DHCP Client so it will take a DHCP address from your networks DHCP Server. You can then use the SmartNode Discovery tool to find the IP address assigned to the unit.

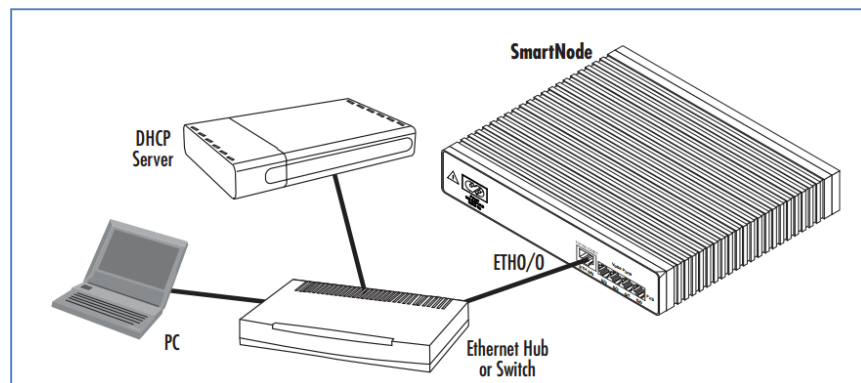


Figure 13 SmartNode as DHCP Client

- Ethernet port 0/1 acts as a DHCP Server. You can connect this directly to your computer and it can receive a DHCP address from the SmartNode.

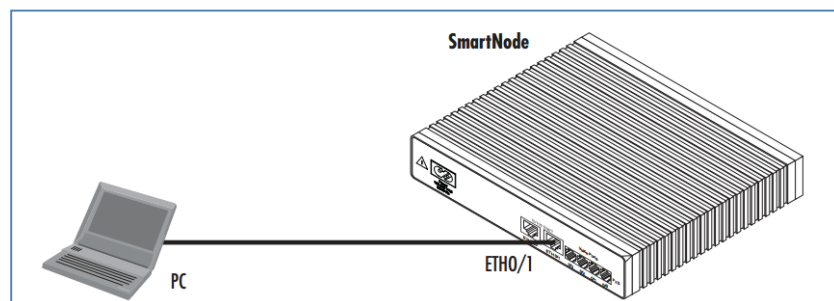


Figure 14 SmartNode as DHCP Server

- 2) Once connected, you will see a login screen. The factory default username is *administrator* and the password is left blank.

Example:

```
login: administrator
password:
10.10.50.106>
```

- 3) Once logged in, you will need to configure the following to enable the auto provisioning.

Example (update the server address and device access URI per deployment environment):

```
enable
configure
profile provisioning PF_PRO_BROADSOFT
destination configuration
location 1 http://xsp.iop1.broadworks.net/dms/Patton_2-8_FXS_DM/Patton_$(system.mac).cfg
location 2 http://xsp.iop1.broadworks.net/dms//Patton_2-8_FXS_DM/Patton_$(system.mac).cfg
location 3 http://199.19.193.16/dms/Patton_2-8_FXS_DM/Patton_$(system.mac).cfg
activation reload immediate
provisioning execute PF_PRO_BROADSOFT
```

- 4) Once step 3 is configured, the Patton SmartNode will execute the provisioning request to the BroadWorks server, GET the configuration stored and then reload itself.

Your Patton SmartNode is now configured and ready for service.

References:

Patton Support website: <http://www.patton.com/support/>

Email Patton Technical Support: support@patton.com

Call Patton Technical Support: 301.975.1007

Patton Support Online Knowledge Base: <http://www.patton.com/support/kb.asp>

Appendix A: Sample Patton SmartNode Configuration Files

NOTE: The following samples are examples and should be used as a reference only. DO NOT CUT AND PASTE THESE EXAMPLES TO GENERATE YOUR CONFIGURATION FILES. Use the configuration files obtained from Patton with the specific release to generate your configuration files.

```
#-----#
#
# SN4526/4JS2JO/EUI
# R6.T 2012-07-18 H323 SIP FXS FXO
# 1970-01-15T07:22:35
# SN/00A0BA0403AA
# Generated configuration file
#
#-----#

cli version 3.20
clock local default-offset +00:00
dns-client server 8.8.8.8
webserver port 80 language en

system

    ic voice 0
        low-bitrate-codec g729

profile napt NAPT

profile ppp default

profile call-progress-tone defaultSItone
    play 1 330 950 -7
    play 2 330 1400 -7

profile call-progress-tone US_Dialtone
    play 1 1000 350 -13 440 -13

profile call-progress-tone US_Alertingtone
    play 1 1000 440 -19 480 -19
    pause 2 3000

profile call-progress-tone US_Busytone
    play 1 500 480 -24 620 -24
    pause 2 500

profile call-progress-tone US_Releasetone
    play 1 250 480 -24 620 -24
    pause 2 250

profile tone-set default
    map call-progress-tone dial-tone US_Dialtone
    map call-progress-tone ringback-tone US_Alertingtone
    map call-progress-tone busy-tone US_Busytone
    map call-progress-tone release-tone US_Releasetone
    map call-progress-tone congestion-tone US_Busytone
```

```
profile voip default
  codec 1 g711ulaw64k rx-length 20 tx-length 20
  dtmf-relay rtp
  fax transmission 1 relay t38-udp

profile pstn default

profile ringing-cadence default
  play 1 1000
  pause 2 4000

profile sip default
  autonomous-transitioning

profile aaa default
  method 1 local
  method 2 none

context ip router

  interface WAN
    ipaddress 192.168.1.2 255.255.255.192
    use profile napt NAPT

context ip router
  route 0.0.0.0 0.0.0.0 192.168.1.1 0

context cs switch

  routing-table called-e164 RT_FROM_FXS00
    route .T dest-interface BROADSOFT

  routing-table called-e164 RT_TO_FXS00
    route default dest-interface FXS00

  interface sip BROADSOFT
    bind context sip-gateway GW_BROADSOFT
    route call dest-table RT_TO_FXS00
    remote as.iopl.broadworks.net
    local as.iopl.broadworks.net
    early-connect
    early-disconnect

  interface fxs FXS00
    route call dest-table RT_FROM_FXS00
    message-waiting-indication stutter-dial-tone
    message-waiting-indication frequency-shift-keying
    call-transfer
    caller-id-presentation mid-ring
    subscriber-number 2405555731

context cs switch
  no shutdown

authentication-service AUTH
  realm 1 as.iopl.broadworks.net
  username fred password fsmith

location-service locserv
  domain 1 as.iopl.broadworks.net
```

```
match-any-domain

identity-group default

    authentication outbound
        authenticate 1 authentication-service AUTH username fred

    registration outbound
        registrar as.iopl.broadworks.net
        preferred-transport-protocol udp
        proxy 1 redas.iopl.broadworks.net
        lifetime 1200
        register auto
        retry-timeout on-system-error 10
        retry-timeout on-client-error 10
        retry-timeout on-server-error 10

    message inbound
        message-server as.iopl.broadworks.net 5060
        lifetime 120
        subscribe implicit
        retry-timeout on-system-error 10
        retry-timeout on-client-error 10
        retry-timeout on-server-error 10

    call outbound
        proxy 1 redas.iopl.broadworks.net
        invite-transaction-timeout 3
        non-invite-transaction-timeout 32

identity 2405555731 inherits default

    registration outbound
        proxy 1 redas.iopl.broadworks.net

    call outbound
        proxy 1 redas.iopl.broadworks.net

context sip-gateway GW_BROADSOFT

    interface sipgwint
        bind interface WAN context router port 5060

context sip-gateway GW_BROADSOFT
    bind location-service locserv
    no shutdown

port ethernet 0 0
    medium auto
    encapsulation ip
    bind interface WAN router
    no shutdown

port ethernet 0 1
    medium 10 half
    shutdown

port fxs 0 0
    use profile fxs us
    encapsulation cc-fxs
    bind interface FXS00 switch
```

```
no shutdown

port fxs 0 1
  shutdown

port fxs 0 2
  shutdown

port fxs 0 3
  shutdown

port fxo 0 0
  shutdown

port fxo 0 1
  shutdown
```

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System Default File: nvram:factory-config

```
#####
#
# Factory configuration file
#
#####

dns-relay
sntp-client
sntp-client server primary 129.132.2.21 port 123 version 4

system

  ic voice 0
    low-bitrate-codec g729

profile napt NAPT

profile dhcp-server DHCP
  network 192.168.1.0 255.255.255.0
  include 1 192.168.1.10 192.168.1.99
  lease 2 hours
  default-router 1 192.168.1.1
  domain-name-server 1 192.168.1.1

context ip router

  interface eth0
    ipaddress dhcp
    use profile napt NAPT
    tcp adjust-mss rx mtu
    tcp adjust-mss tx mtu

  interface eth1
```

```
ipaddress 192.168.1.1 255.255.255.0
tcp adjust-mss rx mtu
tcp adjust-mss tx mtu

context ip router
  dhcp-server use DHCP

port ethernet 0 0
  medium auto
  encapsulation ip
  bind interface eth0 router
  no shutdown

port ethernet 0 1
  medium auto
  encapsulation ip
  bind interface eth1 router
  no shutdown
```