

# Configuration Note

## SmartNode 4520 Series as Cable Access Gateway

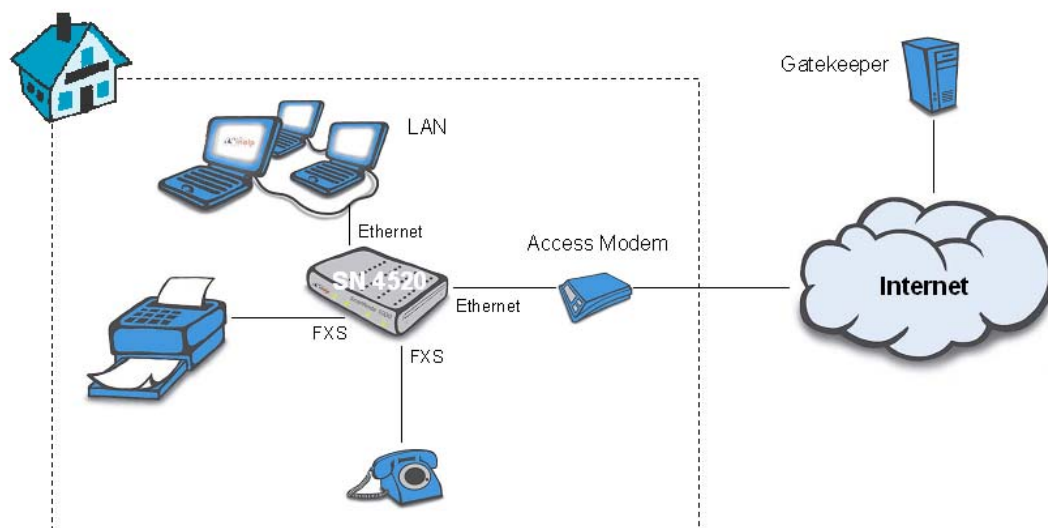
### System Overview

This example configuration shows a SmartNode 4520 used as a Voice over IP access router and gateway for Cable-TV broadband access. The SmartNode provides access routing with NAT/PAT, a DHCP Server for the LAN and Voice over IP access.

The cable-modem is connected to the SmartNode through its Ethernet interface. In this example it is assumed that Internet access is provided through a Cable-TV modem. It is typical for such networks that the IP Address is delivered by DHCP (verify with the Cable Provider).

Further the SmartNode provides access to an H.323 based IP telephony services using a Gatekeeper. The Gatekeeper provides telephony service-functions such as authentication, call routing and address resolution. An example for such a telephony service is the Patton-Inalp Avalanche Voice Intranet (AVI). The analog telephony equipment (phones, fax-machines, etc) is connected to the FXS ports of the SmartNode. The number of FXS ports is model dependant and ranges from 2 to 8 ports.

Towards the LAN the SmartNode acts as a DHCP server.



*Figure 1: Schematic diagram of the example network*

Complete configuration for 8 terminals is provided. The configurations for the FXS ports 0 and 1 are active, the ports 2 to 7 are commented out. Uncomment them if you want to use these additional ports.

Further you have to change some parameters to adapt to your specific network. Figure two displays these details of the example network i.e. IP addresses, subnets, SmartNode interfaces connected to the network, link bandwidth etc.

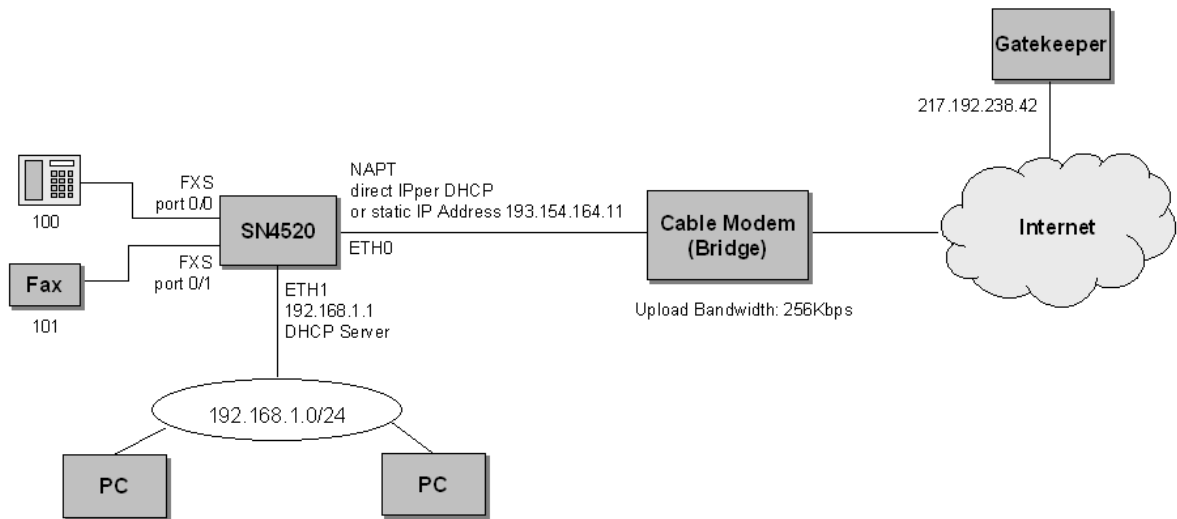


Figure 2: Detailed schematics of the complete network

The following assumption have been made for the example network. Collect the respective information for your installation prior to starting the installation.

Parameter	Example Network	Your Network
Upstream Bandwidth (Upload)	256Kbps	
Voice Codec	G711 a law	
Gatekeeper IP Address	217.192.238.42	
Gatekeeper RAS Port	1719	
H.323 Alias to Register at GK	ROHO1	
Subscriber Number FXS 0	100	
Subscriber Number FXS 1	101	
Subscriber Number FXS 2	102	
Subscriber Number FXS 3	103	
Subscriber Number FXS 4	104	
Subscriber Number FXS 5	105	
Subscriber Number FXS 6	106	
Subscriber Number FXS 7	107	
WAN IP Address	DHCP from Cable Network	
Default Router	DHCP from Cable Network	
LAN Sub network	192.168.1.0 / 24	
LAN IP Address	192.168.1.1	
DHCP Server Address range	192.168.1.10 - 192.168.1.254	

If you have a fixed IP Address:

Parameter	Example Network	Your Network
WAN IP Address	193.154.164.11 / 24	
Default Router	193.154.164.1	



## How To Adapt To Your Network

The configuration file is available as an ASCII file (.cfg) file. You can edit the configuration file with any text editor (MS Word, Wordpad). Save changed files in text (.txt) format.

The configuration files contains comments (lines with a leading #) with instructions where and how to change the parameters which may need to be adapted to your network.

For instructions on how to download the configuration using a TFTP server to the SmartNode please consult the **Quick Start Guide**.

**Note:** Please follow the instructions in the Quick Start guide **exactly - step by step** to insure that the configuration is activated correctly!

### Configuration File

sn4520\_cable\_access.cfg