# General Recommendations

The goal of this document is, to provide a guide line on how to write homogeneous, consistent and easy-to-read SmartNode configurations.

To achieve this goal we recommend a unified "look and feel" for all configuration parts as well as standardized name syntax for the various user-defined elements such as interfaces and profiles.

## File Header

All configuration files should start with a small description. The description should have the following information:

- Model:              On which SmartNode model does this configuration run
- Application:        Only one or two phrases
- How to use:         How to handle the configuration. E.G. copy and paste the content into a Terminal
- Author:             Name or Initials
- Date:               Date of setup or revision
- Contact:            e-mail address and/or phone number

## Example

```
####################################################
#
# For all SmartNode models
#
# Tone-set-configuration for the United States
#
# Copy and paste the full configuration into your
# terminal tool
#
# Author: MZ
# Date:   2004-11-03
# Contact: EMEA: support@patton.com
#
####################################################
```

## Conventions for Variables and Options

Variables are bordered with brackets. The brackets need to be replaced with the actual value before using (loading) the configuration in a unit.

**Example: <DMZ-IP-Address>**

A selection of Options are separated by the pipe symbol. The options must be deleted and only one be left standing before using (loading) the configuration in a unit.

**Example: <fxs | fxo | isdn>**

Each variable should be explained with a comment above the configuration element. All comments start with the pound symbol (#).

### *File Structure*

The order of the configuration settings in a configuration file is important. E.g. before you may use a profile you have to define it first.

### *Configuration order*

1.     System information.

2.     Profiles

3.     Context IP

4.     PPP Subscriber information

5.     Context CS

6.     Gateways

7.     Port Ethernet

8.     Port PSTN

## Naming Recommendations

All interfaces, services, and profiles should have common naming conventions. This makes configurations easier to read and allows interchanging configuration parts between different files with reduced risk of naming conflicts or referencing errors.

We recommend that all names are written in **UPPERCASE** letters.

The following sections provide naming recommendations for the various configuration elements.

### *Context IP*

### *Interface IP*

| | |
|---|---|
| IF_IP_LAN | Connects (bound) to a LAN port |
| IF_IP_WAN | Connects (bound) to any kind of WAN port. WAN connections may be for example DMZ, ADSL or CATV. |
| IF_IP_DMZ | Use this interface only for applications where the SmartNode is the default router between the DMZ and the WAN. If the SmartNode is a host in the DMZ or if it works as a router between the LAN and the DMZ, use the two interfaces above. |

### Profiles

### ACL

| | |
|---|---|
| ACL_LAN_IN | Incoming LAN access-control-list. To be used on IF_IP_LAN |
| ACL_WAN_IN | Incoming WAN access-control-list. To be used on IF_IP_WAN. |
| ACL_WAN_OUT | Outgoing WAN access-control-list. To be used on IF_IP_WAN |

### VPN

| | |
|---|---|
| IPSEC_TRANS_WAN | IP-sec-transform profile. Used in the ipsec-policy-manual profile. |
| IPSEC_PM_WAN | IP-sec-policy-manual profile. Used in the ACL_WAN_IN |

### Class of services

| | |
|---|---|
| COS_VOICE | For classification of external generated incoming Voice traffic. |
| COS_PRIO_SRV | For classification of external generated non-voice IP traffic. |

Note: Use the profile ACL_LAN_IN for classification the profile SP_WAN_OUT for prioritization.

### Service Policy (QOS)

| | |
|---|---|
| SP_WAN_OUT | Upstream service policy. |
| SP_WAN_IN | Downstream service policy. |

### NAPT

| | |
|---|---|
| NAPT_WAN | NAPT or NAT used in the IF_IP_WAN. |

### DHCP Server

| | |
|---|---|
| DHCP_LAN | DHCP-Server-Service used in the IP Context for the LAN network. |
| DHCP_DMZ | DHCP-Server-Service used in the IP Context for the DMZ network. |

### PPPoE

| | |
|---|---|
| SES_PPPOE_1 | First PPPoE session. Used in the port Ethernet. |
| SES_PPPOE_x | Additional PPPoE sessions. |
| SUB_PPPOE | PPPoE subscriber. Mostly used for ADSL connections. |

### *Frame Relay*

| | |
|---|---|
| PVC_100 | DLCI for the first Frame Relay PVC. |
| PVC_x00 | Additional Frame Relay PVCs. |

### *Context CS*

### *Interfaces*

| | |
|---|---|
| IF_SO_<00-43> | Interface, connecting (bound) to a BRI/So Port. Replace the variable with the slot and port number of the connected Port. E.g.: IF_S0_00. |
| IF_<E1 \| T1>_<10-40> | Interface, connecting (bound) to an E1/T1 Port. Replace the first variable with the actual port type and the second with the slot and port number of the connected Port. E.g.: IF_E1_10. |
| IF_FXS_<00-40> | Interface, connecting (bound) to an analogue FXS port Replace the variable with the slot and port number of the connected Port. E.g.: IF_FXS_00. |
| IF_FXO_<00-08> | Interface, connecting (bound) to an analogue FXO port. Replace the variable with the slot and port number of the connected Port. E.g.: IF_FXO_00. |

### *Routing Tables*

| | |
|---|---|
| RT_CDPN_OUT | Called party number (CdPN) routing table for outgoing traffic. The destinations can be multiple VoIP or PSTN interfaces, distribution or hunt Services but not Terminal interfaces. |
| RT_CDPN_TERM | Called party routing table for call-distribution to multiple terminal interfaces. |

### *Mapping Tables*

| | |
|---|---|
| MT_REM_CDPN_1 | Mapping table used to remove the 1st digit in the called-party-number. E.G. a Prefix. |
| MT_REM_CDPN_x | Mapping table used to remove the 1st n digit in the called-party-number. E.G. a Prefix. |
| MT_ADD_CDPN_1 | Mapping table used for adding one called-party number digit. |
| MT_ADD_CDPN_x | Mapping table used for adding x called-party number digits. |
| MT_REP_CDPN | Mapping table used for replacing the full called-party-number. |
| MT_REM_CNPN_1 | Mapping table used for removing one **calling**-party-number digit. |
| MT_REM_CNPN_x | Mapping table used for removing x calling-party-number digits. |
| MT_ADD_CNPN_1 | Mapping table used for adding one calling-party-number digit. |
| MT_ADD_CNPN_x | Mapping table used for adding x calling-party-number digits. |
| MT_REP_CNPN | Mapping table used for replacing the full calling party number. |

## Services

| | |
|---|---|
| SER_HG_NET | Hunt group service for multiple ISDN-network or FXS interfaces. Most used for hunting lines on a group of PBX trunk ports connected to the SmartNode. |
| SER_HG_USER | Hunt group service for multiple ISDN-user or FXO interfaces. Most used for hunting a free PSTN line. |
| SER_DG_NET | Distribution group for multiple ISDN-network or FXS interfaces. |

## Profiles

Use for the VoIP and PSTN profile the default name "default".

## Call-Progress-Tone

For ''xy'' see the country table below.

| | |
|---|---|
| xy_DIAL_TONE | Country specified Dial-tone. |
| xy_RB_TONE | Country specified Alerting-tone. |
| xy_BUSY_TONE | Country specified Busy-tone. |
| xy_RELEASE_TONE | Country specified Release-tone. |

## Tone-Sets

| | |
|---|---|
| PF_TS_xy | Tone-set profile for different countries. See the country table below. |

## Country table

| Country | Country code | Country | Country code |
|---|---|---|---|
| US | United States | UK | United Kingdom |
| CH | Switzerland | DE | Germany |
| ES | Spain | AT | Austria |
| DK | Denmark | NL | Nederland |
| AU | Australia | NZ | New Zealand |
| MX | Mexico | SK | Slovakia |
| CZ | Czech Republic | RU | Russia |
| PT | Portugal | IT | Italia |
| FR | France | BE | Belgium |

### *Contacting Patton*

If you have any questions please feel free to contact Patton's Technical Support:

- E-mail support—e-mail sent to support@patton.com will be answered within 1 business day.
- Telephone support—standard telephone support is available five days a week—from 8:00 am to 5:00 pm EST (1300 to 2200 UTC)—by calling +1 (301) 975-1007.

### *Limitation of Liability*

Information in this document is subject to change without notice and does not represent a commitment on the part of Patton Electronics Company (Patton). Under no circumstance, including Patton's negligence, shall Patton be liable for any incidental, special, or consequential damages, including lost profits, that result from the use or inability to use the product or related documentation, even if Patton has been advised of the possibility of such damage. Some jurisdictions do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above may not apply to you. In no event shall Patton's total liability to you for damages, losses, and causes of action exceed the amount paid by you for the Patton product.

### *Date Created*

November 30, 2004

### *Last Updated*

January 11, 2005 2:23 pm



7622 Rickenbacker Drive
Gaithersburg, MD 20879
Tel: +1 301.975.1000
Fax: +1 301.869.9293
07MDSNQ0S-TN1