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SmartWare Migration Notes

R3 to R4

Introduction

SmartWareR4 is a major release step for SmartNode software. The previous major release was R3. Major rework in software architecture incurs in major release steps. Careful testing is suggested when migrating from R3 to R4 as some risk is associated.

The [SmartWare Software Release Concept](#) dictates the life cycle of existing R3 releases as well as of the new Release R4.

New hardware product support introduced with R4

The following products are first supported with SmartWare R4:

- SmartNode 4960 Series (all models)

Hardware products not supported by R4

The following products that run SmartWare R3 are not supported anymore by R4:

- SmartNode 1200
- SmartNode 1400
- All SmartNode 2300 models

New software features introduced with R4

The following software features are new in R4 and only available in R4. With future builds in R4.T (Technology Release, please refer to the [SmartWare Software Release Concept](#) about this term), more features will be added:

- Multiple clock source fallback
- DHCP options 66/67 configurable in DHCP server
- Multiple NAPT
- ISDN SLIP detector on Layer1
- SIP Partial rerouting
- Transcoding (on model SN4960 only)
- RBS (robbed bit signaling) on T1
- Fractional use of T1 and E1 ports – channels can be configured for ISDN, CAS or data individually (on model SN4960 only)

Software features not supported by R4

All software features present in SmartWare R3 are available in R4. No features have been lost or disabled.

Compatibility of Configuration Files

Configuration files used with SmartWare R3 (R3.20 or R3.21) are fully backwards compatible and can be used on R4.

Changed/New Configuration Commands

The following configuration commands are new or have changed:

Clock Source

Choosing the clock source for the system has become more sophisticated. In SmartWare R3, only one external clock source (e.g. BRI port) could be specified, and if this source was not available, a fallback to internal clock was triggered. SmartWare R4 now supports an ordered list of clock source preference – so a multiplicity of external clock sources can be considered and used in an ordered sequence of priority. The command is in mode “system” – “ic voice”.

| | Command | Purpose |
|--------|--------------------------------------|--|
| Step 1 | [node] (sys) #clock-source e1t1 0 1 | Adds a clock source to the list of clock sources to be tried in sequence. Clock source options are physical ISDN ports present on the system. Command options exist to insert/remove specific entries in the list of clock sources to try (“before after index”) If none of the specified sources provides a clock, fallback to the internal clock is performed. |

IP-IP codec negotiation

This new command introduced with R4 is only available on the model SN4960. It only applies to calls between two IP endpoints (e.g. SIP-SIP or H.323-SIP). It is in mode “profile voip”.

| | Command | Purpose |
|--------|--|-------------------------------------|
| Step 1 | [node] (pf-voip)[default] #[no] codec negotiation | Enables/disables codec negotiation. |

Disabled “codec negotiation” honors the codec lists from each call leg independently, formed out of the remote and local capabilities. The DSP is inserted into the RTP path to make sure each side can use its codec.

Enabled “codec negotiation” will keep the DSP out of the picture for IP-IP calls and tries to negotiate a common codec for both call legs.

Debug Monitors

Some VoIP debug monitor commands have been changed or consolidated from R3 to R4. Please see the following table for a reference:

| R3 | R4 |
|--|------------------------------|
| debug dsp error | debug media-gateway error |
| debug dsp event debug dsp media | debug media-gateway dsp |
| debug dsp ifp debug dsp t30 debug voip t38 events debug voip t38 dejitter | debug media-gateway fax-data |
| debug voip rtp debug voip nte | debug media-gateway rtp |
| debug voip dejitter | debug media-gateway dejitter |
| debug voip cs | debug media-gateway switch |
| debug voip events debug voip demux | debug media-gateway control |

Additional Help, Questions

For additional help or any questions, please contact Patton or Patton-Inalp Technical Support at:

USA: support@patton.com, +1-301-975-1007 Monday-Friday, 8:00AM to 5:00PM EST

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