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Customer Deliverable Documentation
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# SmartWare R6.10 Release Notes

## Build Series 2018-01-09

SmartWare is the embedded application software of the SmartNode™ series of VoIP Gateways and Gateway Routers. SmartWare provides a full set of IP routing features, advanced Quality of Service and traffic management features plus industry leading Voice over IP functionality including SIP and H.323

## Released Build Numbers

SmartNode 4110 Series R6.10 Build 2018-01-09
SmartNode 4110S Series R6.10 Build 2018-01-09
SmartNode 4120 Series R6.10 Build 2018-01-09
SmartNode 4300 Series R6.10 Build 2018-01-09
SmartNode 4400 Series R6.10 Build 2018-01-09
SmartNode 4520 Series R6.10 Build 2018-01-09
SmartNode 4600 Series R6.10 Build 2018-01-09
SmartNode 4600 Series R6.10 DSL Build 2018-01-09
SmartNode 4660 Series R6.10 Build 2018-01-09
SmartNode 4670 Series R6.10 Build 2018-01-09
SmartNode 4830 Series R6.10 Build 2018-01-09
SmartNode 4830 Series R6.10 DSL Build 2018-01-09
SmartNode 4900 Series R6.10 Build 2018-01-09
SmartNode 4940 Series R6.10 Build 2018-01-09
SmartNode 4950 Series R6.10 Build 2018-01-09
SmartNode 4960 Series R6.10 Build 2018-01-09
SmartNode 4970 Series R6.10 Build 2018-01-09
SmartNode 4980 Series R6.10 Build 2018-01-09
SmartNode 4990 Series R6.10 Build 2018-01-09
SmartNode 5200 Series R6.10 Build 2018-01-09
SmartNode 5400 Series R6.10 Build 2018-01-09
SmartNode 5480 Series R6.10 Build 2018-01-09
SmartNode 5490 Series R6.10 Build 2018-01-09
SmartNode DTA Series R6.10 Build 2018-01-09

## About this Release

R6.10 is a SmartWare Maintenance Release. Please see the White Paper about SmartWare software releases https://www.patton.com/whitepapers/SmartWare%20Release%20Strategy%20Whitepaper.pdf for more information about this terminology.

R6.10 was spawned in August 2017. Bugs are fixed until June 2018. End of customer support is in December 2018.

## Supported Products

SmartNode 4110 Series (HW Version: 1.x, 2.x, 4.x, 5.x)
SmartNode 4110S Series (HW Version: 1.x, 2.x)
SmartNode 4120 Series (HW Version: 1.x, 2.x, 3.x)
SmartNode 4300 JS Series (HW Version: 2.x)
SmartNode 4300 JO Series (HW Version: 1.x)
SmartNode 4400 JS Series (HW Version: 2.x)
SmartNode 4400 JO Series (HW Version: 1.x)
SmartNode 4520 Series (HW Version: 1.x, 2.x, 4.x, 5.x)
SmartNode 4600 Series (HW Version: 1.x)
SmartNode 4600 Large Series (HW Version: 1.x, 2.x)
SmartNode 4660, 4670 Series (HW Version: 2.x, 3.x, 4.x)
SmartNode 4830 Series (HW Version: 1.x, 2.x, 4.x, 5.x)
SmartNode 4830 Large Series (HW Version: 1.x, 2.x, 3.x, 4.x)
SmartNode 4900 JS Series (HW Version: 1.x, 2.x)
SmartNode 4900 JO Series (HW Version: 1.x)
SmartNode 4940 Series (HW Version: 5.x)
SmartNode 4950 Series (HW Version: 5.x)
SmartNode 4960 Series (HW Version: 1.x, 2.x, 3.x, 4.x, 5.x)
SmartNode 4970, 4980, 4990 Series (HW Version: 1.x)
SmartNode 5200 Series (HW Version: 6.x)
SmartNode 5221 Series (HW Version: 4.x)
SmartNode 5400 Series (HW Version: 5.x)
SmartNode 5480, 5490 Series (HW Version: 1.x)
SmartNode DTA Series (HW Version: 2.x, 3.x)

# History of Solved CTS Cases

The following list refers to open cases in the Change Tracking System 'CTS'.

## This Build Series 2018-01-09

**12622 Deadlock at boot up when syslog tries to log to a remote host**

When syslog is configured to log to a remote host using a host name, the DNS resolution could generate a deadlock at boot up. The device would then end up in an endless reboot.

This issue has been resolved and now syslog remote host name DNS resolution cannot generate deadlock anymore.

## Build Series 2017-09-04

**12631 Upgraded DSP firmware for SN494x/5x/6x/7x/8x/9x, SN548x/9x and SN466x/7x devices**

For SN494x/5x/6x/7x/8x/9x and SN548x/9x devices the VoIP-stream processing DSP has been upgraded to version 700.36 and for SN4666x/7x devices to version 700.25.

**12633 SIP call with relayed T.38 fax transmission failed**

Under the following conditions a SIP-to-SIP T.38 fax call would fail when the SIP Re-INVITE to T.38 is received:

- codec negotiation is disabled in the voip profile
- "fax transmission relay t38-udp" is configured in the voip profile.

No final response to the Re-INVITE is ever sent. The call is ultimately terminated by the peer with a BYE request.

**12637 SIP call IP-IP codec negotiation with unsupported codec in ReINVITE did not work**

If codec negotiation is enabled, a SIP-to-SIP would fail when a SIP Re-INVITE with an unsupported codec is received.

Instead of rejecting the unsupported codec with a SIP 488 error message, no final response to the Re-INVITE is ever sent.

# Caveat - Known Limitations

The following list refers to open cases in the Change Tracking System 'CTS'

**CTS2236**

Only G.723 high rate (6.3kbps) supported by H.323 (receive and transmit).

**CTS2702**

TFTP may not work with certain TFTP servers, namely the ones that change the port number in the reply. When using the SolarWinds TFTP server on the CD-ROM this problem will not occur.

**CTS2980**

With 10bT Ethernet ports, only the half duplex mode works. (With 10/100bT Ethernet ports, all combinations work.)

**CTS3233**

The SolarWinds TFTP server version 2.2.0 (1999) does not correctly handle file sizes of n * 512 Bytes. Use version 3.0.9 (2000) or higher.

**CTS3760**

The SIP penalty-box feature does not work with TCP. When the penalty box feature is enabled, the TCP transport protocol must be disabled using the ‘no transport tcp’ command in the SIP gateway configuration mode.

**CTS3924**

Changing a call-progress tone has no effect. Adding a new call-progress tone and using it from the tone set profile works however.

**CTS4031**

The Caller-ID message length on FXS hardware with Chip Revision numbers below V1.5 is restricted to 32 bytes. If the message is longer the message will be truncated. The FXS Chip Revision can be displayed using the ‘show port fxs detail 5’ CLI command.

**CTS4038**

When doing 'shutdown' and then 'no shutdown' on an ethernet port that is bound to an IP interface that receives its IP address over DHCP, the IP interface does not renew the lease.

**CTS4077**

Using the command ‘terminal monitor-filter’ with regular expressions on systems under heavy load can cause a reboot.

**CTS4335**

The duration of an on-hook pulse declared as flash-hook has been raised from 20ms to 1000ms, to cover the most country specific flash hook durations. Existing installations should not be affected, as all on-hook pulses *lower than 1000ms* are declared as flash-hook, including the previous default of 20ms. However, care should be taken in analog line extension applications, to make sure that the flash-hook

event is allowed to be relayed over SIP or H.323. This can be achieved by disabling all local call features in the fxs interface on context cs: no call-waiting, no additional-call-offering, no call-hold.

**CTS10392**

The internal timer configuration command is only able to execute commands that produce an immediate result. Some commands that execute asynchronously cannot be executed by the timer. The following commands (among others) cannot be executed by the timer:

- **ping**
- **traceroute**
- **dns-lookup**
- **copy** any kind of files from or to a TFTP server
- **reload** without the **forced** option

**CTS10553**

The command “no debug all” does not fully disable the ISDN debug logs. As soon as any other ISDN debug monitor is enabled, all the ISDN monitors that were disabled by “no debug all” are re-enabled.

**CTS10586**

The codecs G.723 and G.729 cannot be used at the same time on all platforms, except on the SmartNode 4960.

**CTS10610**

SmartNode 4960 Gigabit Ethernet does not properly work with Dell 2708 Gigabit Ethernet Switch. A work-around is to configure 100Mbit.

**CTS10730**

Due to memory limitations it is not possible to download a software image to the SN4552 when two SIP gateways are active.

**CTS11114**

On SN46xx units it can happen that there are more open phone calls requiring a DSP channel than DSP channels are available. This leads to the situation where a phone connected on a bri port rings and has no voice after the user picks it up. To limit the number of calls using DSP channels it is suggested to create a limiter service where each call from and to a bri port has to pass. When the total number of calls on the bri ports is limited to the number of DSP channels each call is going to have audio on picking up.

**CTS11786**

On older SmartNodes the two debug monitors *debug media-gateway rtp* and *debug call-control* print out incorrect RTCP jitter values.

**CTS11816**

The command ‘call-control call drop <call>’ is not behaving as expected. It drops all calls but does not completely teardown all internal structures. Consequently the call numbers of the dropped call cannot

be used anymore for further calls after executing this command. The same is true for the “Drop all” button on the web interface on the “Active Calls” tab of the Call-Router section.

**CTS12027**

The following configuration may create duplicate packets: If one physical ethernet port is bound to two IP interfaces with different IP addresses and on both IP interfaces a SIP gateway is bound and some static routes are configured, then the SIP gateways may receive duplicate UDP packets.

# New Configuration Commands

The commands documented in the Release Notes only cover new additions which are not yet included in the Software Configuration Guide for R6.10, available from www.patton.com.

https://www.patton.com/manuals/SmartWare_SCG_r610.pdf

**Current Revision:**

Part Number: *07MSWR610_SCG, Rev. A*

# Documentation

Please refer to the following online resources:

- Software Configuration Guide SmartWare Release R6.10:
  https://www.patton.com/manuals/SmartWare_SCG_r610.pdf
- SmartWare Configuration Library:
  http://www.patton.com/voip/configNotes.asp
- Web Wizard Platform for Configuration generation:
  http://www.patton.com/wizard/
- SmartNode Utilities:
  https://www.patton.com/support/upgrades/index.asp?um=SmartNode%20Utilities

# General Notes

**Factory Configuration and Default Startup Configuration**

The SmartNodes as delivered from the factory contain both a **factory configuration** and a default **startup configuration**. While the factory configuration contains only basic IP connectivity settings, the default startup configuration includes settings for most SmartWare functions. Note that if you press and hold the system button (Reset) for 5 seconds the factory configuration is copied onto the startup configuration (overwrite). The default startup config is then lost.

**IP Addresses in the Factory Configuration**

The factory configuration contains the following IP interfaces and address configurations bound by the Ethernet ports 0/0 and 0/1.

```
interface eth0
  ipaddress dhcp
  mtu 1500
interface eth1
  ipaddress 192.168.1.1 255.255.255.0
  mtu 1500
```

# How to Upgrade

1. You have the choice to upgrade to R6.10 with or without the GUI functionality.

To upgrade to R6.10 without the GUI functionality, enter the following command (telnet, console):

```
copy tftp://<tftp_server_address>/<server path>/b flash:
```

To upgrade to R6.10 with the GUI functionality, enter the following command (telnet, console):

```
copy tftp://<tftp_server_address>/<server path>/bw flash:
```

2. Load Patton-specific settings (preferences), if available:

Extract the files ‘b_Patton_prefs’ and ‘Patton.prefs’ into the same directory on the TFTP-server.

```
copy tftp://<tftp_server_address>/<server path>/ b_Patton_prefs flash:
```

3. Reboot the SmartNode afterwards:

```
reload
```

# Notes about Upgrading from Earlier Releases

Note that SmartWare Release R6.10 **introduces some changes in the configuration** compared to Release R5.x, especially in the domain of FXO and ISDN.

Please refer to the SmartWare Migration Notes R5 to R6 available at upgrades.patton.com.

# How to submit Trouble Reports

Patton makes every effort to ensure that the products achieve a supreme level of quality. However due to the wealth of functionality and complexity of the products there remains a certain number of problems, either pertaining to the Patton product or the interoperability with other vendor's products. The following set of guidelines will help us in pinpointing the problem and accordingly find a solution to cure it.

| **Problem Description:** |
|---|
| Add a description of the problem. If possible and applicable, include a diagram of the network setup (with Microsoft tools). |
| **Product Description:** |
| When reporting a problem, always submit the product name, release and build number.<br>Example: SmartNode 4960 *V1 R6.10 Build 2018-01-09*<br>This will help us in identifying the correct software version.<br>In the unlikely case of a suspected hardware problem also submit the serial number of the SmartNode (s) and/or interface cards. |
| **Running Configuration:** |
| With the Command Line Interface command 'show running-configuration' you can display the currently active configuration of the system (in a telnet and/or console session). When added to the submitted trouble report, this will help us analyze the configuration and preclude possible configuration problems. |
| **Logs and Protocol Monitors:** |
| Protocol traces contain a wealth of additional information, which may be very helpful in finding or at least pinpointing the problem. Various protocol monitors with different levels of detail are an integral part of SmartWare and can be started (in a telnet and/or console session) individually ('debug' command).<br>**N.B.:** In order to correlate the protocol monitors at the different levels in SmartWare (e.g. ISDN layer3 and Session-Router monitors) run the monitors concurrently. |
| **Network Traffic Traces:** |
| In certain cases it may be helpful to have a trace of the traffic on the IP network in order to inspect packet contents. Please use one of the following tools (supporting trace file formats which our tools can read): Ethereal (freeware; www.ethereal.com) |
| **Your Coordinates:** |
| For further enquiries please add your email address and phone number. |