

# Dominion SX Release Notes

## Dominion SX Release Notes and Compatibility

Release 3.2.0

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*(Note – numbers in parentheses and identifiers noted throughout this document are reference numbers internal to Raritan.)*

## **Applicability**

Release 3.2.0 is applicable to the current Dominion SX models available for sale.

SX Release 3.2.0 is **not** applicable to the Intel-based Dominion SX Models SX16 or SX32. These models have serial numbers starting with WAA, WAB, SX, WP, or WQ. These two models also can be identified from the back panel by the absence of the RESET pin hole.

If the SX unit's firmware version is lower than v.2.5.x, please do **not** apply this update. Contact Raritan Technical support for assistance.

## **Release Status**

General Availability

## **Updated Components**

The new firmware file version is available for download at <http://www.raritan.com/support/Dominion-SX/>.

The following documentation has been updated for this release:

- **Dominion SX User Guide (Version 255-60-2000-00)** – user guide to the SX's local and remote browser based user interfaces and also for general SX usage.
- **Dominion SX Quick Setup Guide (Version 255-60-2010-00)** – reference for the quick setup of the SX.

## Release 3.2.0 Compatibility Information

Dominion SX 3.2.0 is compatible with Raritan CommandCenter Secure Gateway versions 3.2.0, 4.0.0, 4.1.0, 5.0.0 and 5.0.5. **Please note** that due to the releases of CC-SG 5.0.0 and 5.0.5 occurring before the release of SX 3.2, you will receive an on-screen incompatibility message when using these releases together. It can be disregarded. CC-SG releases 5.0.0 and 5.0.5 do not include the firmware for SX 3.2. It must first be obtained from the Raritan web site before upgrading your SX. This issue will be resolved upon the release of CC-SG 5.1.

Dominion SX 3.2.0 is compatible with the Raritan Serial Console (RSC) version 3.0.0, a Java client launched from the browser-based user interface or standalone from the desktop.

Dominion SX 3.2.0 is supported for use with the following client Operating Systems and applications.

Operating Systems	Minimum Browser	Minimum JRE Version
Windows 2000 SP4	Firefox 3.0.7; IE6.0	JRE 1.6.0_03
Windows XP Home Edition SP3	Firefox 2.0.0.20; Firefox 3.0.7; IE7.0, IE8.0	JRE 1.5.0_12; JRE 1.6.0_07
Windows XP Home Edition SP2	Firefox 3.0.7; IE7.0, IE8.0	JRE 1.5.0_17
Windows XP Professional Edition SP3	Firefox 2.0.0.20; IE7.0, IE8.0	JRE 1.6.0_07
Windows XP Professional x64 Edition SP2	Firefox 3.0.6; IE6.0	JRE 1.6.0_07
Windows Server 2003 Standard Edition SP2	Firefox 3.0.3; IE7.0, IE8.0	JRE 1.6.0_07
Windows Server 2003 Enterprise Edition SP1	Firefox 3.0.7; IE7.0, IE8.0	JRE 1.6.0_05
Windows Vista Business x64 SP1	Firefox 3.0.7; IE7.0, IE8.0	JRE 1.6.0_07
Windows Vista Ultimate	Firefox 3.0.7; IE7.0, IE8.0	JRE 1.6.0_07
Windows Server 2008 Standard x64 SP1	Firefox 3.0.7; IE7.0, IE8.0	JRE 1.6.0_07
Fedora Core 6	Firefox 3.0.7	JRE 1.6.0_05
Suse Linux 10.1	Firefox 1.5.0.3	JRE 1.6.0_03
Red Hat Enterprise Linux Server 5.2	Firefox 3.0.7	JRE 1.6.0_07
Ubuntu 8.4	Firefox 3.0.7	JRE 1.6.0_07

## ***Dominion SX Release 3.2.0 Overview***

Version 3.2.0 provides new features and fixes for reported issues.

### **New Features**

<b>Identifier</b>	<b>Description</b>
NA	Ability to restore all NVRAM to factory default configuration and clear all user data within NVRAM.
10323	Different encoding settings allowed for each port.
15787	Active Directory groups can now be used to specify the SX group for authentication.
25251	PPP Dial Back enhanced to allow for extensions and pauses.
25310	SX hostname is now sent to the DHCP server along with DHCP client discover/requests.
28143	Multiple "write" users now allowed.
29398	Port names of up to 64 characters now displayed.
29645	Vendor specific RADIUS attribute now allowed.

### **Fixes in This Release**

<b>Identifier</b>	<b>Description</b>
20164	Power status error.
25889	Issue reported when generating CSR.
27386	Username field error.
27742	Certificate issue.
29737	NFS port logging issue when the file size is defined as 0.
28065	Time zone conversion issue.

30007	Report of log freezing when 'show' command was used.
31800	Single quote character issue.
31989	In user management login IP's shown incorrectly.
32118	Time zone sorting issue.
32891	SX to PX communication enhancement.

**Reported Issue Is Functioning As Intended**

Identifier	Description
19445	SX disconnects via idle timeout.

## **Known Limitations or Issues**

- Dominion SX units that cannot obtain an IP address through DHCP or configured with static IP addresses may not perform configuration backup successfully. Workaround is to issue the following command from the local terminal port, SSH or Telnet: 'admin > Config > Log > eventlogfile style wrap'. This command needs to be executed only once and all subsequent backup operations will be successful.
- If experiencing slow SSH connectivity in SX 3.1.5 or SX 3.1.6; after upgrading to SX 3.2.0 please invoke the "ssh enable true" command from CLI "admin > Config > Services >" menu or GUI Setup->Configuration->Services menu (19127).
- Raritan Serial Console version 3.0 requires the 'History Buffer Size' setting in Emulator/ Settings menu of RSC to be less than 8192 before the upgrade. Higher values will prevent the Raritan Serial Console from opening successfully after the upgrade.
- When generating CSR through CLI, the parameters cannot have spaces. Workaround is to use the GUI to generate CSR if spaces are needed in any of the parameters.
- Dominion SX does not use encrypted private keys. If the SX is not used to generate the certificate signing request, encryption need to be removed from the external certificate's private key. The command "openssl rsa -in server.key -out server2.key" removes the encryption from server.key and provide server2.key, which is the unencrypted private key suitable for use with Dominion SX. Encrypted private keys are used to prevent the web server being started by unauthorized users. Since DSX does not allow users to access the web server directly, an encrypted private key is not required and does not compromise security.
- Nessus may report a false positive of medium severity. The banner will indicate that the version of Apache 2.2 installed on the remote host is older than 2.2.9. Affects of this could include:
  - Improper handling of excessive forwarded interim responses may cause denial-of-service conditions.
  - A cross-site request forgery vulnerability in the balancer-manager interface of mod\_proxy\_balancer.

Note that the remote web server may not actually be affected by these vulnerabilities. Nessus does not attempt to determine whether the affected modules are in use or check for the issues themselves. (CR16726)

## **Important Notes and Information**

The minimum configuration requirements for the Raritan Serial Console are:

- CPU speed of 1.0 GHz
- RAM of 512 Mbytes.

- When changing certain key administrative settings (IP Address, IP Gateway etc.), you must re-boot the SX for the new parameter(s) to take effect.
- The Administrator should warn all users when a re-boot is necessary.
- The Administrator should change the necessary parameters and then perform a re-boot for the settings to take effect.

## **Upgrade Path**

To upgrade to this release you must be running Dominion SX firmware version 2.5.x or higher.

## **If Upgrading From v.2.5.x**

- The port used for SX application is now **changed from TCP port 51000** (or other user- specified high-numbered port) **to TCP port 5000**. This port is also renamed as the CSC port.
- The Discovery port used for CommandCenter communications is not changed, and remains at UDP port 5000. CommandCenter Secure Gateway 3.1.1 is required for release compatibility.
- User groups are now supported, so users can now be put into groups that are function-based, rather than user based.
- To accommodate the many new features, the TCL interpreter has been removed.
- The factory default inactivity timeout has been changed to 10 minutes (from 5 minutes).

## **Upgrade Prerequisites**

If you have any questions, or the SX to be upgraded does not meet the pre-requisites listed below, please stop and contact Raritan Technical Support for further instructions. Please read the entire instructions before proceeding with the upgrade.

1. Raritan Serial Console version 3.0 requires the 'History Buffer Size' setting in Emulator/ Settings menu of RSC to be less than 8192 before the upgrade. Higher values will prevent the Raritan Serial Console from opening successfully.
2. It is highly recommended to clear up any event logs before upgrade is started to free up space
3. Only Administrators can upgrade the SX.
4. There should not be any active users using the Dominion SX; this means that no users, other than the Administrator performing the update, are logged into the unit.
5. The software upgrades are written to flash memory, and this takes time to

complete. Please do not power-off the unit, or disconnect the Ethernet connection while the upgrade is going on.

6. If doing the firmware upgrade over a VPN, ensure that the connection is stable and that no inactivity timeouts have been set.
7. If operating through a router/firewall, the FTP port (TCP port 21) may be blocked and the upgrade may not be possible; in this case, a local FTP server is necessary to upgrade the Dominion SX unit.
8. Please make sure the ftp server idle timeout is set to 20 minutes or greater.
9. If running an FTP server on a Windows PC to upgrade the Dominion SX unit, please read the following additional notes:
  - a. Disable the Windows Firewall before doing the upgrade, or else the upgrade will fail.
  - b. If using VPN software (like Cisco's VPN client), it may also have a built-in firewall that blocks FTP access to the Windows PC. By default when the Cisco VPN client is loaded (it may or may not be in use), the firewall is running automatically, so it has to be disabled to allow the Dominion SX to access the FTP server on the Windows PC.
  - c. Additional operating system security settings, and optional software, may also prevent an FTP server on the Windows PC from being accessed from the Dominion SX unit.
  - d. On a heavily loaded Windows PC (with lots of applications running), connection timeouts to the FTP server may cause the upgrade to be aborted; it is best to close all applications except the FTP server to complete the upgrade.

### ***Upgrade Warning***

**Important: During an upgrade procedure, do not attempt to access any unit features or functions, including, but not limited to, Reset and Exit. Interrupting the upgrade procedure can cause memory corruption and render the unit non-functional. Such an action may void the warranty or service contract, and in such a case unit repair/replacement costs may be solely the responsibility of the user.**

### ***Upgrade Preparation***

1. Download the upgrades file(s) onto a local FTP server.
2. Unzip the files.
3. Locate and select the DIRECTORY where the unzipped SX firmware is located on the FTP server.
4. Obtain the IP address of the FTP server.
5. Obtain the File Path to the upgrade file(s). A file-name is not necessary, just the



right path to the directory containing the upgrade files. For example,  
C:\Documents and Settings\SX30\UpgradePack\_2.5.6\_3.1.6\Pack1of1

6. Obtain a user account (Optional) if “anonymous” access to the FTP server is not supported.
7. Close any remote or local SX sessions to all devices connected to the Dominion SX unit – servers, power strips, and serial devices.
8. Close all open Raritan Console windows.

**Note:** Many upgrades can be performed “anonymous” from the FTP server and the default settings of this screen are for an anonymous upgrade. However, some FTP servers require a user name and password. If this is the case, the administrator can uncheck the “Anonymous” box and enter the correct user name and password for the FTP server.

### **Upgrade Instructions**

**Note: For best results, the SX device should be re-booted before the firmware upgrade is applied. This will ensure that no users are logged in and/or no sessions are active.**

1. In Internet Explorer (or other supported browser), type in the IP address of the Dominion SX unit, and login as an Administrator
2. Click the Maintenance menu
3. Click the Firmware Upgrade section in the Maintenance menu.
4. Type the IP Address in the IP address field, usually is the FTP server IP address
5. Type your Login name in the Login field.
6. Type your Password in the Password field.
7. Type the File Path in the File Path field.
8. Click Upgrade.
9. The firmware upgrade may take up to 60 minutes per SX
  - a. Pre-reboot upgrade time (time required to copy files and extract some files) is 20 minutes
  - b. Post-reboot file extraction time (time required to extract files (which were copied during upgrade) at boot up time is 40 minutes
  - c. **DO NOT REBOOT OR POWER CYCLE THE SX!**
  - d. Once the upgrade is initiated, the status bar will indicate the progress of the upgrade and a pop-up window will notify the user once the upgrade procedure is complete. **The progress bar may pause for a long period at certain points; this is normal.** Should a pop-up window not occur, the the upgrade history can be checked after the system reboots automatically (19130).
  - e. **When complete, the Dominion SX will reboot and the current session will close.**

10. After the reboot, the unit will be upgraded with new release.
11. Close the existing browser windows.
12. Open a new browser session, type in the IP Address of the Dominion SX unit, and login to verify that the upgrade was a success.
13. If you have any questions about compatibility with previous versions of Dominion SX software or CommandCenter Secure-Gateway, please contact Raritan Technical Support.

**Note:** The Firmware Upgrade feature allows you to upgrade the Dominion SX unit's firmware to a newer version. These upgrades preserve user-defined settings. You do not need re-configure the unit after the upgrade is complete.