Dominion SX®

Quick Setup Guide

Thank you for your purchase of the Dominion SX, which offers convenient and secure remote access and control through LAN/WAN, Internet, or dial-up modem to all networking devices. The Dominion SX is a fully configured stand-alone product in a standard 1U high 19" rack mount chassis.

For additional information on any aspect of the Dominion SX, see the accompanying Dominion SX User Guide, which can be downloaded from the Firmware and Documentation section (http://www.raritan.com/support/firmware-and-documentation/) of Raritan's website.

What You've Got

Check the contents of the carton containing the Dominion SX.

- Dominion SX device
- Rack mount kit (depending upon the Dominion SX model)
- 1 or 2 power cords (depending on the Dominion SX model)
- RJ-45 adapter (for loopback testing of console ports)
- CD-ROM and warranty card

If any piece is missing or damaged, contact your Raritan sales representative.

What Else You'll Need

In addition to the equipment in the carton, you will need:

- 1 crossover Ethernet cable to configure the Dominion SX through a browser-based interface, or
- 1 null modem cable for models with a DB9 terminal port, or 1 standard Cat5 cable and 1 Raritan ASCSDB9F adapter for models with a RJ45 terminal port to configure the Dominion SX through the Terminal Port.
- Enough cables to connect your managed devices to the Dominion SX. Refer to the Raritan Price book for the types of cables needed for each type of device you intend to connect.

Factory Defaults

The Dominion SX device is shipped from the factory with the following default settings built in:

Setting	Default
IP address	192.168.0.192
Subnet mask	255.255.255.0
Gateway	192.168.0.192
Username	admin (all lowercase)

Setting	Default
Password	raritan (all lowercase)
Device name	Dominion SX

Connect the Target Devices

The Dominion SX comes in a variety of models. The model shown contains two power outlets, one LAN interface, and 32 console ports. Your model may differ, but this will not affect the following installation instructions.

Diagram key			
1	Power on/off switch	4	Terminal port
2	Power connectors	5	LAN interface
3	Modem	6	Console ports

1. Install the Dominion SX in your chosen location. Rack mounting is recommended but not required.
2. Connect the power cord to the power connector on the Dominion SX and to an external power source. If your device has two power connectors, you can connect the second power connector to a backup power source.

3. Flip the power switch to turn the Dominion SX device on. The device performs a hardware and firmware self test. The software boot sequence starts and is complete when the light goes on and remains on.

4. Connect your target servers or other serially managed devices to the console ports on the Dominion SX.

   a. Connect one end of a standard Cat5 Ethernet cable to one of the console ports on the Dominion SX.

   b. Connect the other end to a Raritan Nulling Serial Adapter (p/n ASCSDB9F, ASCSDB9M, ASCSDB25F, ASCSDB25M) as appropriate.

   c. Connect the adapter to the console port on the target device.

Important: Many Cisco and Sun devices have console ports with non-standard RJ-45 connections. Most can be connected to the Dominion SX with a "serial rollover cable." This is NOT a standard Ethernet cable or crossover Ethernet cable. If you have misplaced the rollover cable that came with your Cisco or Sun device, you can purchase one from Raritan (Part Number CRLVR-15 or CRLVR-1).

Configure the Dominion SX Using a Browser

You can configure the Dominion SX using a Web browser or a command line interface (CLI). If you prefer a CLI, skip this section and proceed directly to the next section.

1. Connect a computer to the LAN interface on the Dominion SX using a crossover Ethernet cable. If your Dominion SX has two LAN interfaces, use LAN1.

2. Make sure the computer has a route to the Dominion SX's default IP address (192.168.0.192). Open a console window and enter the route print command. If the default IP address is NOT on the Active Routes list, do the following:

   a. On a Windows machine, type ipconfig and note your IP address. Then type: `route add 192.168.0.192 <installation computer IP address>`

   b. On a Unix or Linux machine, type ifconfig and note your IP address. Then type: `route add 192.168.0.192 <installation computer IP address> -interface`

   c. Type: `ping 192.168.0.192`. This should produce a reply. If it does not, check the physical connection between the computer and the Dominion SX, and make sure you executed the route add command correctly.

3. Open a browser and enter this URL: http://192.168.0.192

4. When the Login window appears, enter the default username (admin) and password (raritan). Use all lowercase letters.

5. You will be prompted to change the default password. Do so now, and be sure to remember this password for future login.

6. Choose Setup > Network. In the Network Basic Settings panel, select an IP configuration method (DHCP is enabled by default), give Dominion SX an IP address, subnet mask, and gateway address on your LAN. You can give the device a name to help identify it (up to 64 characters, but special characters and spaces are not allowed.) and a domain (required to send SMTP messages).

Note: If DHCP is selected and the client computer used to configure Dominion SX via crossover cable is running a DHCP server, the Dominion SX will not be accessed at 192.168.0.192, but instead at any IP address the configuring machine assigns.

7. The Dominion SX will now reboot. Once it is rebooted, enter new IP address in a browser and log in again using your new password.

8. Choose Setup > Date/Time.

   a. Select your time zone from the drop-down menu in the UTC Offset field.

   b. You can enter the date and time manually, or you can enter the IP addresses of up to two Network Time Protocol (NTP) servers.

   c. When you are finished, click OK. The Dominion SX's clock is now set.

9. Choose Setup > Port Configuration. You can now configure each console port that has a target device connected to it:

   a. Click the checkbox next to a port with a target device connected to it. If more than one target device will have the exact same settings, you can select multiple ports.

   b. Click Edit to display the settings for the port(s) and enter the information. See the user guide for details.

   c. When finished, click OK and repeat for any other ports.

Congratulations! Your Dominion SX is configured and ready for use. We suggest you get started by doing the following:

1. Create additional user profiles and groups.

2. Enhance the authentication and security capabilities of Dominion SX.

3. Launch the Raritan Serial Console (RSC) and manage your target devices remotely.

Configuring Dominion SX Using the Command Line Interface

1. Connect a computer to the Terminal port on the Dominion SX. This port is a DB9 male port on all models except those that have 2 power connectors and 2 LAN interfaces. These models have both RJ-45 connectors and DB9 male port, such as Dominion SX model - DSXA-16-DL.

2. Open a terminal emulation program and connect to the Dominion SX. Make sure the communications parameters are set to 9600 bps, no parity, 8 data bits, and 1 stop bit.

3. When the Login prompt appears, enter the default username (admin) and password (raritan). Use all lowercase letters.

4. You will be prompted to change the default password. Do so now, and be sure to remember this password for future login.

5. At the admin > prompt, enter `config` and at the next prompt enter `network`.

6. Give the Dominion SX an IP address, subnet mask, and gateway address on your LAN. At the admin > config > network > prompt, enter: `interface enable true if lan1 ip <ip address> mask <subnet mask> gw <gateway ip address>`

7. You will now be prompted to reboot the Dominion SX. Enter yes to reboot. Log in again using your new password.

8. Give the device a name to help identify it (up to 64 characters, spaces and special characters not (allowed) and your domain (required to send SMTP messages). Enter: `name unitname <DSX name> domain <domain name>`

9. You will now be prompted to reboot the Dominion SX. Enter yes to start the reboot. When it is complete, log in again.

10. At the admin > prompt, enter `config` and at the next prompt enter `time`.

11. At the admin > config > time > prompt, set the date and time on the Dominion SX.

    a. Enter `timezonelist` and find the number code that corresponds to your time zone.

    b. Enter: `clock tz <timezone code> datetime <"time string">` where <timezone code> is the time zone code and <"time string"> is the current date and time in "YYYY-MM-DD HH:MM:SS" format (quotes included, use 24-hour time). Example: `clock tz 9 datetime "2007-03-15 09:22:33"`

12. Enter `top` to return to the top level prompt. Then enter `config` and at the next prompt enter `ports`. You can now configure each console port that has a target device connected to it:

    a. Enter: `config port <port number>` followed by the parameters described in the table below. Example: `config port 1 name cisco1700 bps 9600 parity odd flowcontrol none emulation vt100`

    Note: In addition to the parameters above, additional parameters include config [port <number|range|*>] [name string] [bps value] [parity <none|even|odd>] [flowcontrol <none|hw|sw>] [detect <true|false>] [escapemode <none|control>] [escapechar char] [emulation type] [exitstring <cmd[#delay;]>] [dpaip ipaddress] [telnet port] [ssh port] [alwaysactive <true|false>] [suppress <none|all>] [sendbreak duration]

    b. Repeat Step a for each port with a device connected to it.

    Note: You can also use port ranges or the wildcard asterisk *, as in: config port * bps 115200. This will configure all ports for a communications speed of 115200 bps. Or: config port 3-7 bps 115200. This will configure ports 3 through 7 for 115200 bps. Or: config port 1,2,7-9 bps 115200. This will configure ports 1, 2, 7 trough 9 for 115200 bps.

13. When done, enter `top` to return to the top level prompt.

Congratulations! Your Dominion SX is configured and ready for use.

Additional Information

For more information about the Dominion SX and the entire Raritan product line, see Raritan's website (www.raritan.com). For technical issues, contact Raritan Technical Support. See the Contact Support page in the Support section on Raritan's website for technical support contact information worldwide.

Raritan's products use code licensed under the GPL and LGPL. You can request a copy of the source code. For details, see the Open Source Software Statement at (http://www.raritan.com/about/legal-statements/open-source-software-statement/) on Raritan's website.