

## Dominion SX II – Wireless Modem Access

### Wireless Modem Access for the Dominion SX II

Customers use the Dominion SX II for serial-over-IP access to their critical networking and computing infrastructure. As networking is an essential corporate resource, any issues must be fixed immediately. Wireless access is also important for remote and branch offices, as well as telecom and wireless facilities.

The SX II provides wireless, out-of-band access using Sierra Wireless Modems (called gateways).

### Sierra Wireless Modems

**We recommend that customers use the Sierra ES450.** Customers with rugged or mobile environments could consider the more expensive GX450.

The Sierra modems provide **worldwide coverage from a global leader** in Wireless technology that has shipped 120 million+ M2M devices worldwide, operates on more than 80+ networks globally, and supports products and services in 130+ countries.

**Benefits** of the Sierra modems include:

- State of the art LTE coverage spanning 11 LTE frequency bands
- Proven reliability, with over 1 million AirLink devices deployed
- Operating on more than 80+ networks globally
- Enterprise-grade security
- Software updates, and hardware replacement included

### Wireless Access Challenges

Given the mission critical nature of networking infrastructure and remote facilities, **reliability of access** is essential. A reliable, enterprise-grade modem is essential to ensure that wireless access is available when needed most. Inexpensive, consumer-grade USB modems should not be the backup access to your critical network infrastructure!

Another key need is the **strength of the wireless signal**. In data center environments, a reliable wireless signal is often difficult to achieve. The Sierra Wireless modems have dual antenna architecture, known as Receiver Diversity or MIMO, to support a reliable connection in a challenging environment.

The third and **most important challenge is security**. Wireless LTE access is from the user via a TCP/IP connection over the wireless carrier's network to the wireless modem's IP address. This connection must be secure or your networking infrastructure may be at risk. As detailed below, there are two levels of security available with the Sierra Modems working with the SX II: the Dominion SX II security features and the Sierra Wireless Airlink security features.

## Dominion SX II – Wireless Modem Access

### Wireless Access with the Dominion SX II

The following diagram illustrates how the Sierra Modem is connected to the Dominion SX II:

Serial devices are connected to the SX II.

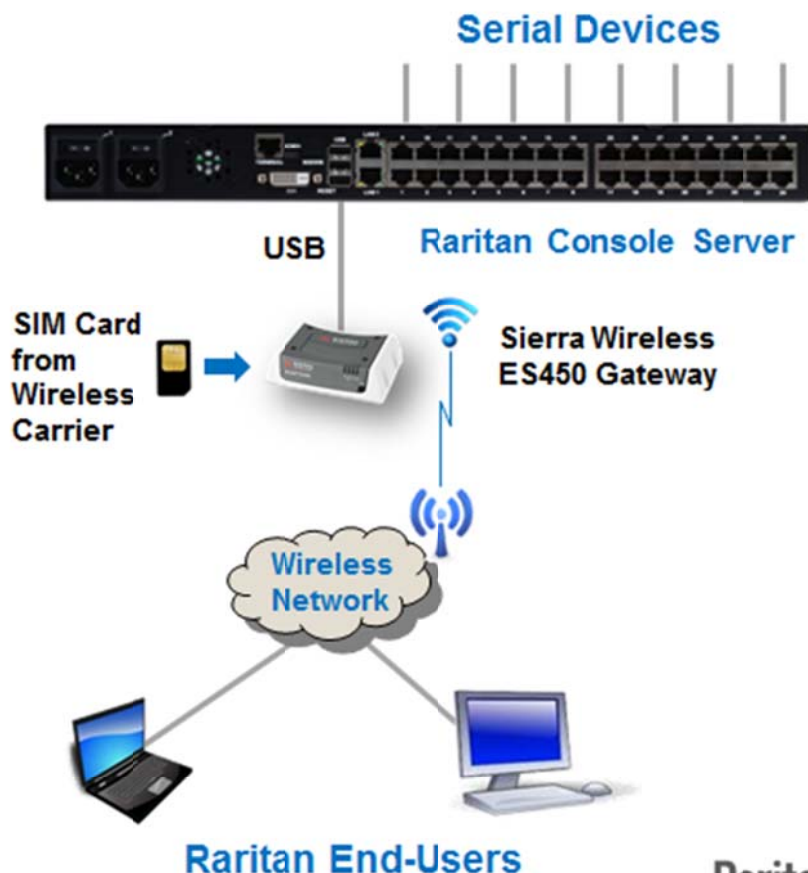
The modem connects to the SX II via its USB port.

A SIM card with an active account is required from the wireless carrier. The SIM card is installed in the modem.

The account associated with the SIM card must have a public, static IP address. Order this from the wireless carrier when the account is created.

Users connect to the modem over the carrier's network using the IP address of the modem.

All supported SX II access methods are available.



## Dominion SX II – Wireless Modem Access

### Dominion SX II Configuration

The Sierra Modem must be configured for use with the SX II. The SX II User Guide and Online Help explain the procedures and the available security options. Here's a link to this information for the recent SX II Release 2.1 firmware:

<http://help.raritan.com/sx2/v2.1.0/en/#42809>

### Security of Access

There are two levels of security available with the Sierra Modems working with the SX II.

The **Dominion SX II** has the following security features and options:

- Modem access must be enabled by the SX II administrator

- Users can only use the modem if they belong to a group with the appropriate permission

- Option to only use the modem when wired access not available (see below)

- Use the SX II Firewall "iptables" feature to limit access

- Use strong AES encryption

- Upload a custom SSL Certificate to the SX II

- Disable TLS v1.0 and use TLS v1.2 for tighter security

**Additional security options** are available with the Sierra Wireless modem:

- Change the default password on the Sierra device

- Use the Inbound Trusted IPs (aka Friends List) to secure the Sierra Modem from remote attacks

- Set the max login attempt value to prevent brute force attacks

- Utilize port filtering or Sierra gateway to gateway VPN capability

- Place the modem in Secure Mode, which shuts down all open ports

Consult the ALEOS Software Configuration User Guide from Sierra for more information on configuring the Sierra modems:

[http://source.sierrawireless.com/resources/airlink/software\\_reference\\_docs/airlink-aleos-configuration-guide-es450/](http://source.sierrawireless.com/resources/airlink/software_reference_docs/airlink-aleos-configuration-guide-es450/)

## Dominion SX II – Wireless Modem Access

Consult the Security chapter for more information on the AirLink security features. Your wireless carrier may have additional security features beyond the above.

### SX II Broadband Modem Failover Mode

For customers wanting wireless access only when wired access is not available, the SX II has a failover option. Enable the “Enable Broadband Modem Failover” setting and the wireless modem will only operate when wired access is unavailable. This limits wireless access to only when it is absolutely required. For more information on this feature, consult the SX II help documentation.

<http://help.raritan.com/sx2/v2.1.0/en/#46254>

### For More Information

For information on the **Dominion SX II**, see the following raritan.com pages:

Product Information: <http://www.raritan.com/products/serial-consoles/dominion-sx-ii>

Support Information: <https://www.raritan.com/support/product/dominion-sx-ii>

For information on the **Sierra Wireless products**:

ES450: <https://www.sierrawireless.com/products-and-solutions/routers-gateways/es450/>

GX450: <https://www.sierrawireless.com/products-and-solutions/routers-gateways/qx450-qx400/>

Software Configuration and Security:

[http://source.sierrawireless.com/resources/airlink/software\\_reference\\_docs/airlink-aleos-configuration-guide-es450/](http://source.sierrawireless.com/resources/airlink/software_reference_docs/airlink-aleos-configuration-guide-es450/)

Purchasing Information and Distributors: <https://www.sierrawireless.com/how-to-buy/>

### Conclusion

Wireless access to critical network and computing infrastructure is important for many customers. This document has summarized the Dominion SX II's wireless access available using Sierra Wireless modems and gateways. Reliable and secure backup access to critical IT infrastructure is readily available.