



GRACE GDI-SXBR3*



External Connectivity Requirements Information for Network Administrators

Whitelisting External Ports

The players must communicate externally over the following ports:

PROTOCOL	PORT	PURPOSE	DETAILS
TCP	80	HTTP	Unencrypted traffic
TCP	443	HTTPS	Encrypted traffic
UDP	53	DNS	Domain name resolution
UDP	123	NTP	Network time synchronization
TCP	5000	FIRMWARE	Firmware upgrade binaries are transported through port 5000

Whitelisting Sirius XM Streaming Servers

Sirius XM streaming services use the Akamai Content Delivery Network for delivering content to the player/receiver. The player/receiver uses the following URLs for content:

- .mountain.siriusxm.com
- .production.streaming.siriusxm.com
- .streaming.siriusxm.com
- .akamaized.net
- .gapi.gracedigital.com (scheduling portal)

Because these URLs are appended with dynamic information, whitelisting of the URL must be limited to the base URL.

Whitelisting of URLs can also be done using pattern matching. For example, *.streaming.siriusxm.com, or *.mountain.siriusxm.com are valid patterns where "*" can match any valid permutation of sub-domain (DNS) names, including multiple names separated by periods.

All streaming sites for *.mountain.siriusxm.com go through an enterprise Web Application Firewall (WAF). The WAF IP addresses MUST be allowed ("Allow List"). Therefore, the IP ranges must be allowed:

"199.83.128.0/21", "198.143.32.0/19", "149.126.72.0/21", "103.28.248.0/22", "185.11.124.0/22", "192.230.64.0/18", "45.64.64.0/22", "107.154.0.0/16", "45.60.0.0/16", "45.223.0.0/16"

The IP range belongs to Imperva, and may be referenced as such or as "Incapsula."

*This External Connectivity Requirement guide is also applicable for GDI-SXBREW/SXBREO & GDI-SXBR2 devices.