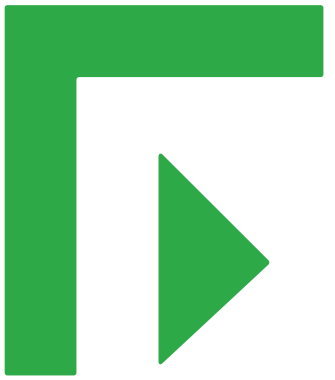

FORCEPOINT

Sidewinder

Hardware Guide

Models S4016, 1402-C3, S5032, S6032, S7032

Revision G

Table of contents

Preface

This guide provides the information you need to configure, use, and maintain your product.

Find product documentation

On the Forcepoint support website, you can find information about a released product, including product documentation, technical articles, and more.

You can get additional information and support for your product on the Forcepoint support website at https://support.forcepoint.com. There, you can access product documentation, Knowledge Base articles, downloads, cases, and contact information.

Introducing the appliances

The features and capabilities of models S4016, 1402-C3, S5032, S6032, and S7032 allow you to plan and configure an appliance.

Models and features

Forcepoint™ Sidewinder® models S4016, 1402-C3, S5032, S6032, and S7032 include these features.

- Network module bays that support interchangeable network modules
- Redundant hard drives
- Hardware-based remote management capabilities
- Redundant power supplies

The following table provides an overview of the models.

Table 1: Model features

Model	Rack height	Network module bays	Maximum network ports	Hard drives	Power supplies
S4016 (similar to 1100F)	1U	2	16	2	2
1402-C3	1U	2	16	1	2
S5032 (similar to 2150F)	2U	4	32	4	2
S6032 (similar to 4150F)	2U	4	32	4	2
S7032 (similar to 2150F VX)	2U	4	32	4	2

Model S4016

This figure shows the attributes of model S4016.

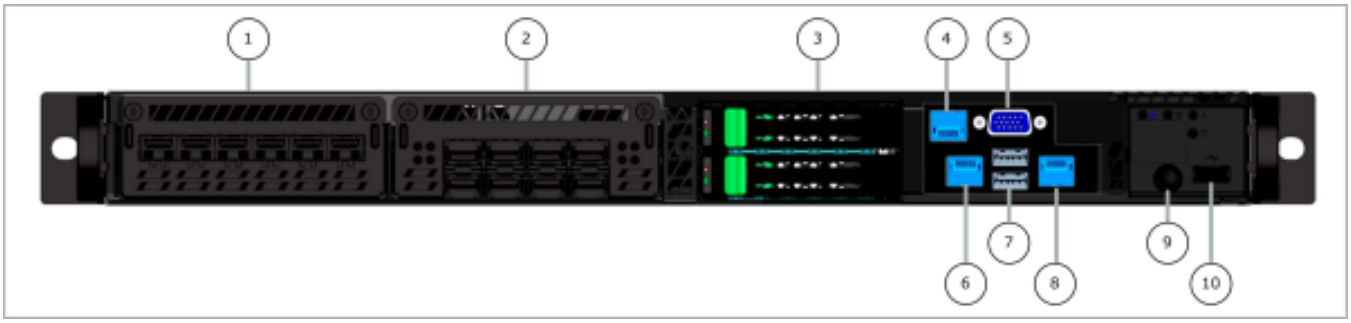

Figure 1: Model S4016 front panel

Number	Description
1	Network module bay 1
2	Network module bay 2
3	Hard drive bays
4	Remote Management Module Ethernet port

Number	Description
5	VGA port
6	Dedicated management port
7	USB ports
8	RS-232 serial port
9	Power button
10	USB port

Model 1402-C3

This figure shows the attributes of model 1402-C3

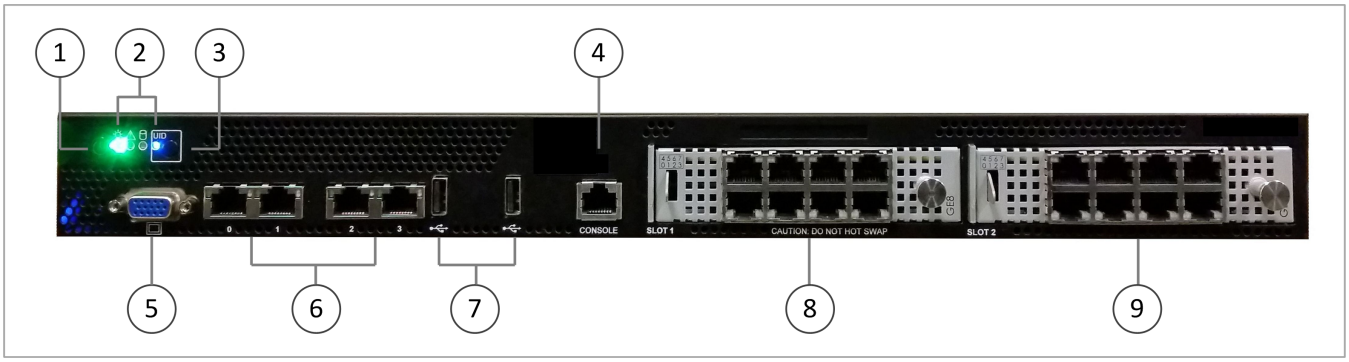

Figure 2: Model 1402-C3 front panel

Number	Descriptions
1	Power button
2	Indicator lights
3	UID button
4	Console port (RS-232 serial port)
5	VGA port
6	Fixed Ethernet ports
7	USB ports
8	Network module bay 1
9	Network module bay 2

Models S5032, S6032, and S7032

This figure shows the attributes of models S5032, S6032, and S7032.

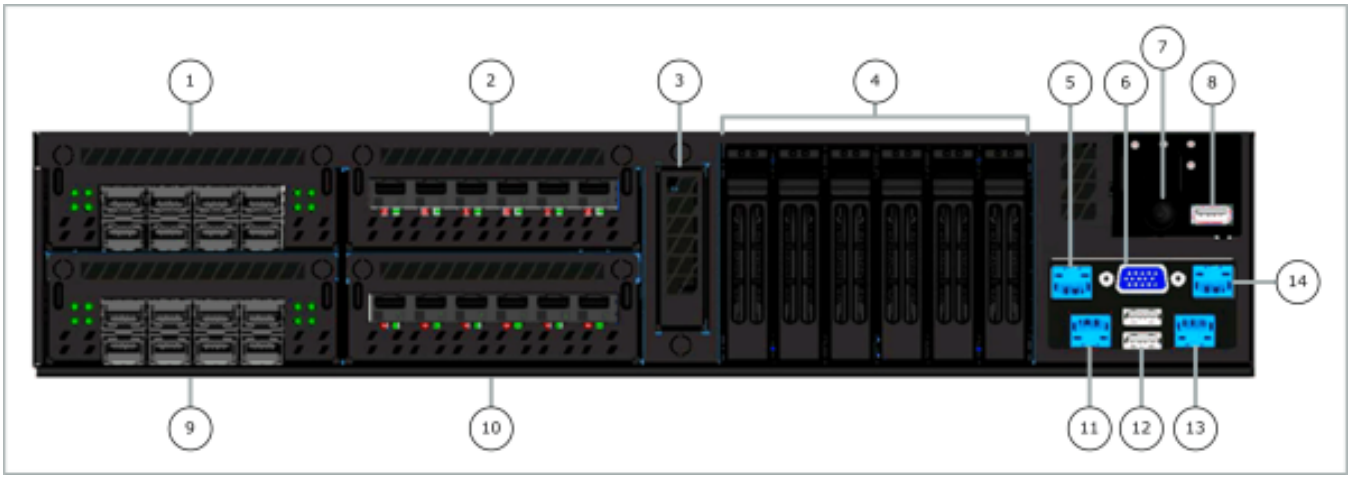

Figure 3: Models S5032, S6032, and S7032 front panel

Number	Description
1	Network module bay 1
2	Network module bay 3
3	RAID battery module
4	Hard drive bays
5	Remote Management Module Ethernet port
6	VGA port
7	Power button
8	USB port
9	Network module bay 2
10	Network module bay 4
11	Dedicated management port 1
12	USB ports
13	RS-232 serial port
14	Dedicated management port 2

Supported software

These software versions are supported.

- **Models S4016, S5032, and S6032** — Sidewinder software:
  - **Version 7** — 7.0.1.02.HW04 and later
  - **Version 8** — 8.1.1HW04 and later
- **Model 1402-C3** — Sidewinder software:
  - **Version 7** — 7.0.1.03.H14 and later

    - **Version 8** — 8.3.2HW01 and later
- **Model S7032** — VMware ESXi version 4.1 and later

Network ports

Sidewinder models S4016, 1402-C3, S5032, S6032, and S7032 have network module bays that accept interchangeable network modules.

Network modules are available for different types of Ethernet, so you can select the network modules that are appropriate for your needs. Fiber network modules require the compatible transceiver modules.

Network modules

Network modules contain NICs that connect the appliance to protected networks. Each network module type is interchangeable with all network module bays and can be installed in any combination.

Network modules are available for these types of Ethernet:

- 1 gigabit RJ45 copper
- 1 gigabit SFP fiber
- 10 gigabit SFP+ fiber

The following table summarizes the features of each network module.

Note: By default, model S4016, S5032, and S6032 appliances include a single SC8-UTP network module, and model S7032 appliances include a single S8-UTP network module. For model 1402-C3 appliances, network modules must be ordered separately.

Table 2: Network modules for S models

Model	Type	Ports	Integrated SSL Accelerator	Compatible appliances
SC8-UTP	1 gigabit RJ45 copper	8	Yes — The accelerator works with all other installed network modules	• S4016 • S5032 • S6032
S8-UTP	1 gigabit RJ45 copper	8	No	• S4016 • S5032 • S6032 • S7032
S8-SFP	1 gigabit SFP fiber	8	No	• S4016 • S5032 • S6032 • S7032
S6-SFP+	10 gigabit SFP+ fiber	6	No	• S4016 • S5032 • S6032 • S7032

Table 3: Network modules for model 1402-C3

Model	Type	Ports
MOD-EM1-GE-4 (GE4)	1 gigabit RJ45 copper	4
MOD-EM1-GE-8 (GE8)	1 gigabit RJ45 copper	8
MOD-EM1-GE-SFP-4 (GE4SFP)	1 gigabit SFP fiber	4
MOD-EM1-10G-SFP-2 (10GSFP2)	10 gigabit SFP+ fiber	2
MOD-EM1-10G-SFP-4 (10GSFP2)	10 gigabit SFP+ fiber	4

Fiber transceivers

These types of fiber transceivers are available.

SFP transceivers

These small form-factor pluggable (SFP) transceivers are compatible with the S8-SFP network module.

Table 4: SFP transceivers

Model	Ethernet type	Wavelength	Distance	Ethernet speed	Connector type
MT9101A (black handle)	1000BASE-SX	850 nm	• Up to 550 meters on 50/125 µm multi-mode fiber • Up to 300m on 62.5/125 µm multi-mode fiber	1 gigabit	LC
MT9102A (blue handle)	1000BASE-LX	1310 nm	• Up to 10 kilometers on 9/125 µm single-mode fiber	1 gigabit	LC

SFP+ transceivers

These enhanced small form-factor pluggable (SFP+) transceivers are compatible with the S6-SFP+ network module.

Table 5: SFP+ transceivers

Model	Ethernet type	Wavelength	Distance	Ethernet speed	Connector type
MT9107 (black handle)	10GBASE-SR	850 nm	Up to 300 meters on OM3 multi-mode fiber	10 gigabit	LC
MT9108 (blue handle)	10GBASE-LR	1310 nm	Up to 10 kilometers on single-mode fiber	10 gigabit	LC

Identifying network ports

The following sections describe how physical network ports correlate with software interface names.

Models S4016, 1402-C3, S5032, and S6032

The Ethernet ports on network modules are physically labeled. These port labels, combined with network module location, correspond to Sidewinder NIC names for software version 8.1.1 and later.

Software NIC names for network ports are derived from a combination of two factors:

- Ethernet port number (labeled on the network module)
- Network module bay number where the Ethernet port is installed

This information is combined to create the NIC name as follows:

```
<module bay number>-<Ethernet port number>
```

For example, port *3* in network module bay *2* is named 2–3. The following table shows the NIC names for an example S5032 configuration.

Table 6: Example S5032 configuration

Network module bay	Module type	Software NIC names
1	SC8-UTP (8 ports)	1–0 to 1–7
2	S6-SFP+ (6 ports)	2–0 to 2–5
3	S8-UTP (8 ports)	3–0 to 3–7
4	S8-SFP (8 ports)	4–0 to 4–7

Note: The module bay naming system described above is used on all supported software versions for the 1402-C3. The NIC names for the fixed Ethernet ports on the 1402-C3 are mgr1–mgr4. These fixed Ethernet ports can be used for management or general traffic purposes.

Model S7032

You will need to determine which ESXi network adapter corresponds to a given network port.

1. Connect the network port to an active network.
2. In the VMware vSphere client, view the network adapters.
3. Find the network adapter that corresponds to the network port you connected in Step 1. Use the following columns to identify the correct network adapter:
   - Speed
   - Observed IP ranges

Types of Management ports

Sidewinder models S4016, S5032, S6032, and S7032 have dedicated management ports and a Remote Management Module (RMM) port.

Note: Model 1402-C3 does not have an RMM. Use any of the fixed Ethernet ports as a management port.

Dedicated management ports

Dedicated management ports are 10/100/1000 RJ45 copper ports that provide additional network connection options for management traffic.

Supported types of network traffic

Dedicated management ports can be used for these types of network traffic.

- Firewall administration, including:
  - Sidewinder Admin Console
  - Forcepoint™ Sidewinder® Control Center
  - Secure Shell
- Logging to remote Syslog servers.
- High Availability heartbeat

Note: Network ports on the network modules can also be used for these types of traffic.

Identifying management ports and NICs

The following table shows the dedicated management ports and corresponding NIC names.

Table 7: Dedicated management ports

Model	Management ports	NIC names
S4016	1	• mgr1
S5032	2	• mgr1 • mgr2
S6032	2	• mgr1 • mgr2
S7032	2	• mgr1 • mgr2

Remote Management Module port

The Remote Management port is a 10/100 RJ45 copper port that provides system management features independent from the Sidewinder operating system.

Note: The Remote Management Module port cannot be used by Sidewinder and the port does not appear in the list of firewall interfaces.

Features

You can use the Remote Management Module web interface to furnish these tasks.

- View system information
- View system health, including:
  - Sensor readings

    - Event log
- Control the appliance remotely using console redirection
- Turn the appliance on or off

Types of replaceable hardware components

There are two types of replaceable hardware components: hot-swap capable and non-hot-swap capable.

Hot-swap capable components

Components that are hot-swap capable can be installed or uninstalled while the appliance is operating. These components are the hot-swap capable.

- SFP and SFP+ transceivers
- Power supplies
- Hard drives

CAUTION: The hard drive in the 1402-C3 model is not hot-swap capable and should only be serviced by a qualified technician.

Non-hot-swap capable components

Components that are not hot-swap capable must be installed or uninstalled when the appliance is turned off and disconnected from the power source. These are the non-hot-swap capable components.

- Network modules
- RAID batteries

Regulatory information

In compliance with Federal Communications Commission (FCC) regulations, this section provides information about the appliance models and contact information.

Model information

This regulatory information applies to Sidewinder S4016, 1402-C3, S5032, S6032, and S7032 models.

Table 8: Regulatory model information

Sidewinder model	Regulatory model
S4016	SR1602
1402-C3	Series 1400
S5032	SR2604
S6032	SR2604

Sidewinder model	Regulatory model
S7032	SR2604

Contact information

Use the following information to contact us.

Forcepoint LLC
10900-A Stonelake Blvd
Quarry Oaks 1, Ste 350
Austin, TX 78759
USA
+1-800-723-1166

Installing hardware components

Install compatible hardware components like network modules, fiber transceivers for an appliance. Use this section to replace or remove hardware components.

Verifying compatibility

Before you install a hardware component, make sure it is compatible with the appliance. If you are installing fiber transceivers, make sure they are compatible with the network module(s).

Network modules and fiber transceivers

The table shows network module compatibility with fiber transceivers and appliance models.

Table 9: Network module compatibility

Network module	Compatible fiber transceivers	Compatible appliances
SC8-UTP	N/A	• S4016 • S5032 • S6032
S8-UTP	N/A	• S4016 • S5032 • S6032 • S7032
S8-SFP	• MT9101A (1000BASE-SX) • MT9102A (1000BASE-LX)	• S4016 • S5032 • S6032 • S7032
S6-SFP+	• MT9107 (10GBASE-SR) • MT9108 (10GBASE-LR)	• S4016 • S5032 • S6032 • S7032
MOD-EM1-GE-SFP-4 (GE4SFP)	• MT9101A (1000BASE-SX) • MT9102A (1000BASE-LX)	1402-C3
MOD-EM1-10G-SFP-2 (10GSFP2)	• MT9107 (10GBASE-SR) • MT9108 (10GBASE-LR)	1402-C3

Other hardware components

The table shows hardware component compatibility with appliance models.

Table 10: Hardware component compatibility

Hardware component	Appliance models				
	S4016	1402-C3	S5032	S6032	S7032
1U Power supply	X				
1402-C3 power supply		X			
2U Power supply			X	X	X
146 GB hard drive	X		X	X	
600 GB hard drive					X
RAID battery			X	X	X

Install or replace the network module

You must install an interface module or a placeholder module in each slot before making the appliance operational.

CAUTION: Network modules are not hot-swap capable. Always turn off the appliance and disconnect both power cable before installing or uninstalling network modules.

- If the appliance is deployed in a production environment, schedule a maintenance interval to perform the installation procedure.
- Gather the following items:
  - Number 2 Phillips screwdriver
  - Anti-static wrist strap

Note: A disposable anti-static wrist strap is included with the new network module.

- Verify hardware compatibility:
  - Make sure that the network module is compatible with your appliance model.
  - If you are installing a new fiber module, make sure that you have compatible fiber transceivers.
- If you are installing a replacement network module, identify which network module bay contains the failing module.

CAUTION: Electrostatic discharge (ESD) can damage electronic components. Always take ESD precautions when handling hardware components. We recommend that you perform all steps at an ESD workstation. If an ESD workstation is not available, provide protection by wearing an anti-static wrist strap attached to the chassis ground (any unpainted metal surface on the appliance).

1. Turn off the appliance and disconnect the power cables.

   CAUTION: The power button does not completely turn off power to the appliance. Make sure that both power cables are unplugged before you begin working on the appliance.

2. Put on the anti-static wrist strap and attach the other end to the appliance chassis.
3. Prepare the network module bay.

1. If needed, use a number 2 Phillips screwdriver to loosen the screws on the installed network module or network module bay cover.
2. Pull on the installed network module or network module bay cover to remove it.

4. Remove the new network module from the anti-static packaging.
5. Slide the new module into the empty network module bay.
6. If needed, secure the network module by tightening the fasteners with the screwdriver.
7. If you removed a network module from the appliance, place it into the anti-static packaging that came with the new module.
8. Reconnect the power cables, then turn on the appliance.

Related concepts

Verifying compatibility on page 13
Before you install a hardware component, make sure it is compatible with the appliance. If you are installing fiber transceivers, make sure they are compatible with the network module(s).

Install or remove fiber transceivers

This section describes how to install or remove fiber transceivers.

Verify that the fiber transceivers are compatible with the network module.

Related concepts

Verifying compatibility on page 13
Before you install a hardware component, make sure it is compatible with the appliance. If you are installing fiber transceivers, make sure they are compatible with the network module(s).

Install a fiber transceiver

Perform these steps to install a fiber transceiver into a compatible network module.

1. Clear the SFP socket where the transceiver will be installed.
   - If the socket is empty, remove the cover and keep it for future use.
   - If the socket is populated with a failed transceiver, remove it.
2. Remove the SFP transceiver from the protective packaging.
3. Slide the SFP transceiver into the SFP socket on the network module until it snaps into place.
   - **S6-SFP+ network module** — Insert the transceiver with the label down.
   - **S8-SFP network module**:
     - If the SFP socket is located in the top row, insert the transceiver with the label up.
     - If the SFP socket is located in the bottom row, insert the transceiver with the label down.

   Note: The SFP transceiver will not snap into place if it is inserted upside down.
4. [Optional] Connect a fiber cable to the SFP transceiver.
   1. Remove the protective plug and keep it for future use.
   2. Insert the fiber cable into the SFP transceiver.

Remove a fiber transceiver

Perform these steps to remove a fiber transceiver from a network module.

1. If a fiber cable is connected to the transceiver, disconnect the cable, then place dust caps over the exposed ends of the cable.
2. Release the latch on the SFP transceiver by rotating it to the horizontal position.
3. Gently pull the latch straight out to remove the SFP transceiver from the network module.
4. Rotate the latch back to normal position.
5. Place a protective plug over the exposed optics on the SFP transceiver, if one is not already present.
6. Place an SFP cover over the empty SFP socket on the network module.

Replace the hard drive

Each model S4016, S5032, S6032, or S7032 appliance uses hot-swap hard drives connected to a RAID controller. The RAID controller allows the system to continue operating in the event that a single disk drive fails. A single failed hard drive can be replaced while the system is still operational.

To replace a hard drive, make sure these prerequisites are met:

- The appliance must have no more than one failed hard drive.

  Note: If two or more hard drives have failed, contact technical support for assistance with re-creating the RAID array and restoring the firewall image.

- The replacement hard drive must be the same size or larger than the failed drive.

1. Identify the failed hard drive.

   Tip: A failed hard drive typically has an amber indicator light.

2. Remove the failed hard drive from the appliance.
   1. Press the aqua latch on the failed hard drive to release the spring-loaded black handle.
   2. Remove the failed hard drive from the appliance by pulling on the black handle.
3. Prepare the replacement hard drive.
   1. Remove the replacement hard drive from the protective packaging.
   2. Compare the replacement hard drive to the failed hard drive to make sure the replacement hard drive has similar or greater capacity.

      Note: A smaller hard drive will not work. Contact technical support if you received a replacement hard drive that is smaller than the failed hard drive.

   3. Press the aqua latch to release the spring-loaded black handle.
4. Insert the replacement hard drive into the appliance.
   1. Slide the drive into the empty hard drive bay until it is fully seated.
   2. Press the black handle until it latches.
   3. If the appliance is turned off, turn it on.

      After the drive is inserted, the RAID controller begins the rebuild operation. When the rebuild operation begins, each hard drive shows activity. You can monitor the rebuild process:

      - **Models S4016, S5032, and S6032** — RAID messages appear on the system console.
      - **Model S7032** — The VMware vSphere Client shows RAID status.

      CAUTION: Do not turn off the appliance until the rebuild operation is complete.

Note: Performance is reduced while the rebuild operation takes place.

5. Place the failed hard drive in the packaging materials from the replacement hard drive.

Related concepts

Verifying compatibility on page 13
Before you install a hardware component, make sure it is compatible with the appliance. If you are installing fiber transceivers, make sure they are compatible with the network module(s).

Replace the power supply

In the event of a failure, replace the power supply.

- Verify that the replacement power supply is compatible with your appliance model.
- Identify the failed power supply.

Each model has dual supplies that allow the appliance to continue operating if one power supply fails. The power supplies are hot-swappable, so a single power supply can be replaced while the system is still operating.

Note: We recommend using both power supplies in normal operation so that two power supplies share the load.

A power supply can be replaced while the appliance is turned on and running or when the appliance is turned off.

1. Disconnect the power cable from the failed power supply.
2. Remove the failed power supply.
    1. Unlatch the failed power supply.
        - **Model S4016** — Press the aqua handle down.
        - **Model 1402-C3** — Press the black handle sideways.
        - **Model S5032, S6032, and S7032** — Press the aqua handle sideways toward the black handle.
    2. Continue pressing the handle and remove the power supply, holding the handle if needed.
3. Remove the replacement power supply from the protective packaging.
4. Slide the replacement power supply into the appliance until it is fully seated and the latch has engaged.
5. Connect the power cable to the replacement power supply.

Related concepts

Verifying compatibility on page 13
Before you install a hardware component, make sure it is compatible with the appliance. If you are installing fiber transceivers, make sure they are compatible with the network module(s).

Replace the RAID battery

This section describes how to replace a RAID battery in a model S5032, S6032, or S7032 appliance. The battery provides power to the cache memory of the RAID controller in the event of sudden power loss.

CAUTION: RAID batteries are not hot-swap capable. Always turn off the appliance and disconnect both power cords before installing or uninstalling a RAID battery. Never operate the appliance without the RAID battery installed.

Perform these tasks before replacing a RAID battery.

- If the appliance is deployed in a production environment, schedule a maintenance interval to perform the replacement procedure.
- Gather the following items:
  - Number 2 Phillips screwdriver
  - Anti-static wrist strap

> **Note:** A disposable anti-static wrist strap is included with the new RAID battery.

1. Turn off the appliance and disconnect the power cables.

> **CAUTION:** The power button does not completely turn off power to the appliance. Make sure that both power cords are unplugged before you begin working on the appliance.

2. Put on the anti-static wrist strap and attach the other end to the appliance chassis.
3. Remove the old battery and tray from the appliance.
   1. Find the battery tray, which is located between the network module bays and the hard drive bays.
   2. Use a number 2 Phillips screwdriver to loosen the screws on the battery tray.
   3. Pull the battery tray out of the appliance.

   > **Note:** The battery is connected to the appliance by a cable, which is long enough to allow you to remove the tray from the appliance.

   4. Gently unplug the cable from the battery.
4. Remove the old battery from the tray.
   1. Completely unscrew all three screws on the underside of the tray. Do not discard.
   2. Disconnect the circuit board from the battery by pressing the small clip and sliding it out.
   3. Gently disconnect the wire harness from the circuit board.
5. Attach the new battery to the old tray.
   1. Connect the wire harness from the battery to the circuit board.
   2. Seat the circuit board on the battery sliding it in and then press the small clip to secure it in place.
6. Install the replacement battery and tray into the appliance.
   1. Connect the three screws and standoffs on the underside of the tray.
   2. Gently plug the cable into the new battery.
   3. Slide the battery tray into the appliance.
   4. Use a number 2 Phillips screwdriver to tighten the screws on the battery tray.
7. Reconnect the power cords, then turn on the appliance.
8. Place the old battery in the packaging materials from the replacement battery.

Configuring the management ports

You must enable the dedicated management ports, Remote Management Module, and connect to the Remote Management Module web interface to manage network traffic.

Note: Model 1402-C3 does not have a RMM. Use any of the fixed Ethernet ports as a management port.

Configure a dedicated management port

The dedicated management ports are disabled by default. To configure and enable a dedicated management port, perform these steps.

1. Create a zone for the management network.
2. Configure the NIC that corresponds to the dedicated management port and assign it to the management zone.
3. Create or modify access control rules to allow the appropriate management traffic.

Related concepts

Dedicated management ports on page 10
Dedicated management ports are 10/100/1000 RJ45 copper ports that provide additional network connection options for management traffic.

Configure the Remote Management Module

The Remote Management Module is disabled by default. Perform these tasks to configure and use the Remote Management Module port.

If the appliance is deployed in a production environment, schedule a maintenance interval to enable the Remote Management Module.

Related concepts

Remote Management Module port on page 10
The Remote Management port is a 10/100 RJ45 copper port that provides system management features independent from the Sidewinder operating system.

Connect the Remote Management Module port

To use the Remote Management Module, connect the Remote Management Module port to a network.

CAUTION: We recommend connecting the Remote Management Module port to a dedicated management network that meets the security needs of your organization.

Enable the Remote Management Module

Perform these steps to configure and enable the Remote Management Module.

1. Enter the appliance BIOS menu.
    1. Restart or turn on the appliance.

2. Press **F2** to enter the BIOS menu.
3. Navigate to the **Server Management** tab.
4. Select **BMC LAN Configuration**.

2. Configure the following options:
   - IP address
   - Subnet mask
   - Gateway IP address
3. In the User configuration area, specify at least one user that will be allowed to access the appliance from a remote host.
   1. In the **User ID** field, select the user ID that you want to configure.

      Tip: The appliance has five user IDs for user information: anonymous, root, User3, User4, and User5. Each user ID can be enabled or disabled and assigned a privilege.

   2. Configure the following options:
      - Privilege
      - User name
      - User password
   3. In the **User status** field, select **Enable** to activate the user ID.
4. Press **F10** to exit the BIOS and save the changes.

Connect to the Remote Management Module web interface

Perform these steps to connect to the *Remote Management Module* web interface from a remote computer.

1. In a web browser, go to https://<IP of Remote Management Module>. The first time you connect, accept the SSL certificate.
2. Specify a user name and password, then click **Login**. The homepage appears.
3. Click the tab that corresponds to the task you want to perform.

   Tip: For option descriptions, click **Help**.

Table 11: Web interface tabs

Tab	Task
System Information	View appliance information
Server Health	• View sensor readings • View the event log
Configuration	• Configure Remote Management Module network settings • Manage Remote Management Module users • Upload a new SSL certificate • Configure LDAP (Lightweight Directory Access Protocol)
Remote Control	• Access the appliance console • Turn the appliance on or off

CAUTION: When modifying network settings for the Remote Management Module on the Configuration tab, select **Intel(R) RMM3** from the **LAN Channel** drop-down list. Do not configure the Baseboard Mgmt LAN channel.

Re-imaging an appliance

Serious issues might require you to re-install or re-image your Sidewinder.

Re-imaging without external media

Sidewinder models S4016, S5032, S6032, and S7032 include an integrated device that allows the appliances to be re-imaged without external media.

The integrated device includes two software versions — the current version that is pre-installed on the appliance and the previous version.

CAUTION: Re-imaging an appliance removes all configuration and log data.

Update the eUSB device

You can use the eUSB Flashing Utility to update the versions available on the eUSB device.

Verify that your appliance has an integrated eUSB device.

Select the type of media for the eUSB Flashing Utility image.

- USB — The USB drive must be 2 GB or larger.
- DVD — S models do not have a DVD drive — an external USB DVD drive is needed.

Note: We recommend using USB media.

The versions that shipped with your appliance might not be the most current, or you might have different eUSB versions throughout your network. With the eUSB Flashing utility, you can update the versions available for your appliances.

Important: Do not use the eUSB flashing utility with 1402-C3 or S7032 models.

1. Download the update tool.
    1. Go to https://support.forcepoint.com/Downloads.
    2. Enter your logon credentials, then navigate to the appropriate product and version.
    3. Select the eUSB Flashing Utility file and write the image to a DVD or USB drive.
        - USB drive
            1. Download the USB .img image.
            2. Write the image to the USB drive.

            Note: See Knowledge Base article 9307 for instructions.
        - DVD
            1. Download the .iso image.
            2. From your local hard drive, right-click the .iso image file and select **Burn disk image**.
            3. When prompted, insert a blank DVD disc.
2. Restart the appliance to the media you created.
    1. Insert the media into the appliance.

2. Restart the appliance.
3. When **Press <F2> to enter SETUP, <F6> Boot Menu, <F12> for Network Boot** appears on the screen, press **F6**.
4. Select the drive that the media is in.
5. When prompted **Would you like to update your eUSB image?**, select **Yes**.

   The eUSB Flashing Utility opens and searches for the eUSB device.
6. When the device is found, select **Yes** to proceed.

   Note: If the eUSB device cannot be found, the system shows an error message and prompts you to restart.

3. When complete, you are prompted to restart; select **Yes**.
4. After the system restarts, remove the media.

Re-image the appliance

Perform these steps to re-image an appliance.

If the appliance is deployed in a production environment, schedule a maintenance interval to re-image.

If you need to re-image your appliance, use the integrated installation media to install a fresh image.

Re-image a model S4016, S5032, and S6032 appliance

Perform these steps to re-image your appliance.

1. Connect your appliance to a monitor and keyboard or serial console.
2. Restart or turn on the appliance.
3. During startup, press **F6** to access the one-time boot settings.
4. From the list of boot options, select **McAfee Firewall**.

   The appliance boots from the integrated installation media and displays standard boot-up information.
5. On the welcome menu, select the appropriate option.

   - If you are using a mouse and keyboard, type **1**, then press **Enter**.
   - If you are using a serial console, type **4**, then press **Enter**.

   The appliance continues starting.
6. When prompted, choose the version you want to install.
   1. Use the arrow keys and spacebar to select the version.
   2. Select **OK**, then press **Enter**.

   Installation begins. When the operation completes, a menu appears.
7. On the post-installation menu, select **Reboot**, then press **Enter**.

   The appliance restarts and boots the Sidewinder version you installed.
8. Provide the initial configuration using one of these methods:

   - Insert a USB drive containing a disaster recovery backup into one of the appliance USB ports.
   - Use the Quick Start Wizard on a Windows-based computer to create an initial configuration file and save it to a USB drive, then insert the USB drive into the appliance.
   - Complete the text-based Quick Start Wizard at the appliance terminal.

Re-image a model 1402-C3 appliance

The 1402-C3 model does not have an eUSB, so you must download the media to re-image the appliance.

Select the type of media for the image.

- **USB** — The USB drive must be 2 GB or larger. If you use a USB hub, it must be powered.
- **DVD** — A powered, external USB DVD drive is required (the Model 1402-C3 does not have a DVD drive).

Note: We recommend using USB media.

1. Download the image.
   1. Go to https://support.forcepoint.com/Downloads.
   2. Enter your logon credentials, then navigate to the appropriate product and version.
   3. Select the correct image file and write the image to a DVD or USB drive.
      - USB drive
        1. Download the USB .img image.
        2. Write the image to the USB drive.
      - DVD
        1. Download the .iso image.
        2. From your local hard drive, right-click the .iso image file and select **Burn disk image**.
        3. When prompted, insert a blank DVD disc.
2. Restart the appliance from the media you created.
   1. Insert the media into the appliance.
   2. Restart the appliance.
   3. When **Press <F2> to enter SETUP, <F6> Boot Menu, <F12> for Network Boot** appears on the screen, press **F6**.
   4. Select the drive that the media is in.

      The appliance completes the imaging process.
   5. When prompted, remove the media and restart the system.
3. Follow the **Quick Start Wizard** prompts.

   When the wizard is completed, you are prompted to log on.

Re-image a model S7032 appliance

For re-imaging instructions, see the *McAfee Firewall Enterprise, Multi-Firewall Edition Installation Guide*, model S7032.

Diagnosing hardware problems

Sidewinder models S4016, S5032, S6032, and S7032 include an integrated hardware diagnostics tool you can use to diagnose hardware problems. The 1402-C3 model uses an external IDT CD or USB drive.

Note: For details about how to create an IDT CD or USB drive, see the *Intel Diagnostics Tool for McAfee Appliances Instructions*. The 1402-C3 model uses IDT version 3.2.5044 or later.

Run hardware diagnostics

The diagnostics utility is independent of the appliance operating system, so the appliance must be restarted to run the diagnostics.

- If the appliance is deployed in a production environment, schedule a maintenance interval to run hardware diagnostics.
- Make sure that your appliance is not connected to a network.
- If your appliance does not have an integrated eUSB, create an IDT CD or USB drive.

Note: If you want to run a comprehensive test on the NIC ports, use a crossover cable to connect any network port to another port in the same system.

Use these high-level steps to run diagnostics on your appliance.

Note: For complete instructions, see the *Intel Diagnostics Tool for McAfee Appliances Instructions*.

1. Determine the IDT media source — eUSB, CD, or USB drive.

   CAUTION: If you use the eUSB IDT, the test logs cannot be saved.

2. Complete any necessary tasks to prepare your appliance.

   If external media is used, insert the CD or USB drive during this step.
3. Start the diagnostic utility.
4. Run the hardware test.
5. [Optional] Run another type of test.
6. Exit the diagnostic utility.
7. [Optional] View the log created by the test with the `edit fsz:\result.log` command.
8. If external media was used, remove it.
9. Restart the appliance with the `reset` command.

View the system event log

Depending on your model, you can view the system event log (SEL) by connecting to the Remote Management Module or by using the system event log viewer.

Note: The 1402-C3 model does not have an integrated SEL viewer. Use the SEL viewer available on the external IDT media; for instructions, see the *Intel Diagnostics Tool for McAfee Appliances Instructions*.

Use the Remote Management Module

To view the system event log from a remote location, use the Remote Management Module.

1. In a web browser, go to https://<IP of Remote Management Module>.
2. Specify your credentials and log on.
3. Click the **Server Health** tab.
4. Click **Event Log**.

Use the integrated system event log viewer

If you have local access to the appliance, use the integrated system event log viewer to view the system event log.

Note: If the Sidewinder IPMI daemon (ipmid) is enabled, system event log events are converted to firewall audit entries and removed from the system event log. If you want to use the system event log to monitor hardware events instead of the firewall audit, disable ipmid by running the command `cf daemond disable agent=ipmid`.

1. Connect your appliance to a monitor and keyboard.
2. Restart or turn on the appliance.
3. When the appliance starts, press **F6** to access the one-time boot settings.
4. From the list of boot options, select **Internal EFI Shell**.

   The EFI shell starts and a countdown timer appears. When the countdown is complete, the **Intel Diagnostic Tool** menu appears.

   CAUTION: Wait for the countdown to finish. Do not press any key.

5. At the `fs0:\>` prompt, run the **sel** command. The system event log viewer appears.

   Tip: For instructions on how to use the system event log viewer, select **Help**.

Status indicator lights

Sidewinder models S4016, S5032, S6032, and S7032 feature several indicator lights on the appliance to help determine the status of various hardware components.

S4016 control panel indicator lights

The control panel of S4016 models has four status indicator lights. The control panel is found on the front of the chassis.

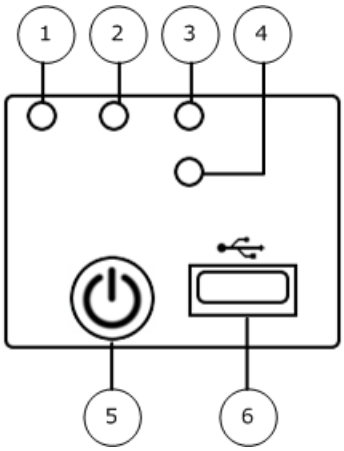

Figure 4: S4016 control panel indicator lights

1. NIC 1
2. System power
3. System status
4. Hard drive activity
5. Power button
6. USB port

The following table summarizes the indicator light states and the corresponding hardware component status.

Table 12: S4016 indicator light states

Indicator light	Color	State	Status
NIC 1	Green	Solid	NIC link/no access
		Blink	LAN access
System power	Green	Solid	Power on
	Off	Off	Power off
Disk activity	Green	Random blink	Hard disk activity in progress
	Off	Off	No hard disk activity

The following table describes the system status indicator light.

Table 13: S4016 system status indicator light

Color	State	Status
Green	Solid	System booted and ready
	Blink	System degraded: • Non-critical temperature threshold asserted • Non-critical voltage threshold asserted • Non-critical fan threshold asserted • Fan redundancy lost, sufficient system cooling maintained **Note:** This does not apply to non-redundant systems. • Power supply predictive failure • Power supply redundancy lost **Note:** This does not apply to non-redundant systems. • Correctable errors over a threshold of 10 and migrating to a mirrored DIMM (memory mirroring) **Note:** This indicates the appliance no longer has spare DIMMs indicating a redundancy lost condition. The corresponding DIMM indicator light should light up.
Amber	Blink	Non-fatal alarm — System is likely to fail: • CATERR asserted • Critical temperature threshold asserted • Critical voltage threshold asserted • VRD hot asserted • SMI Timeout asserted
	Solid	Fatal alarm — System has failed or shut down: • CPU missing • Thermal Trip asserted • Non-recoverable temperature threshold asserted • Non-recoverable voltage threshold asserted • Power fault/Power Control Failure • Fan redundancy lost, insufficient system cooling **Note:** This does not apply to non-redundant systems. • Power supply redundancy lost insufficient system power **Note:** This does not apply to non-redundant systems.
Off	Off	System powered off

1402-C3 control panel indicator lights

The control panel of the 1402-C3 model has four status indicator lights. The control panel is found on the front of the chassis.

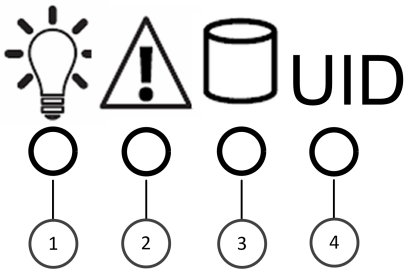

Figure 5: 1402-C3 control panel indicator lights

1. Power
2. Warning
3. Disk activity
4. UID

The following table summarizes the indicator light states and the corresponding hardware component status.

Table 14: 1402-C3 indicator light states

Indicator light	Color	State	Status
Power	Green	Solid	The appliance is in a running state.
	Red	Solid	The appliance is in a standby state.
Warning	Red	Solid	The appliance is overheating.
		Blinking	There is a fan failure or system failure.
Disk Activity	Yellow	Flashing	Indicates SSD activity.
UID	Blue	Solid	The UID indicator has been switched on.

S5032, S6032, and S7032 control panel indicator lights

The control panel of S5032, S6032, and S7032 models has five status indicator lights. The control panel is found on the front of the chassis.

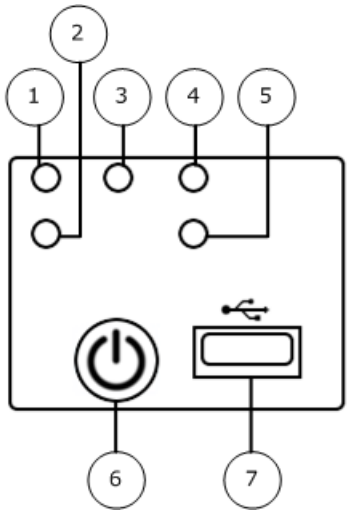

Figure 6: S5032, S6032, and S7032 control panel indicator lights

1. NIC 1
2. NIC 2
3. System power
4. System status
5. Hard drive activity
6. Power button
7. USB port

The following table summarizes the indicator light states and the corresponding hardware component status.

Table 15: S5032, S6032, and S7032 indicator light states

Indicator light	Color	State	Status
NIC 1/NIC 2	Green	Solid	NIC link/no access
		Blink	LAN access
System power	Green	Solid	Power on
	Off	Off	Power off
Disk activity	Green	Random blink	Hard disk activity in progress
	Off	Off	No hard disk activity

The following table describes the system status indicator light.

Table 16: S5032, S6032, and S7032 system status indicator light

Color	State	Status
Green	Solid	System booted and ready
	Blink	System degraded: • Non-critical temperature threshold asserted

Color	State	Status
		• Non-critical voltage threshold asserted • Non-critical fan threshold asserted • Fan redundancy lost, sufficient system cooling maintained  **Note:** This does not apply to non-redundant systems. • Power supply predictive failure • Power supply redundancy lost  **Note:** This does not apply to non-redundant systems. • Correctable errors over a threshold of 10 and migrating to a mirrored DIMM (memory mirroring)  **Note:** This indicates the appliance no longer has spare DIMMs indicating a redundancy lost condition. The corresponding DIMM indicator light should light up.
Amber	Blink	Non-fatal alarm — System is likely to fail: • CATERR asserted • Critical temperature threshold asserted • Critical voltage threshold asserted • Critical fan threshold asserted • VRD hot asserted • SMI Timeout asserted
	Solid	Fatal alarm — System has failed or shut down: • Thermal Trip asserted • Non-recoverable temperature threshold asserted • Non-recoverable voltage threshold asserted • Power fault/Power Control Failure • Fan redundancy lost, insufficient system cooling  **Note:** This does not apply to non-redundant systems.  **Note:** This state also occurs when AC power is first applied to the system. This indicates the BMC is booting.
Off	Off	System powered off

Power supply indicator lights

Each power supply module installed on an appliance has a single indicator light to indicate the power supply status.

The following tables describe the indicator light states and the corresponding power supply status.

Table 17: Power supply indicator light states for S4016, S5032, S6032, or S7032 models

Color	State	Status
Green	Solid	One of the following:

Color	State	Status
		• Output ON and OK • Active state (for 1+1 cold redundant power supplies configuration)
	Blink	One of the following: • AC present/Only 5 VSB on (PS Off) • Cold standby state (for 1+1 cold redundant power supplies configuration)
Amber	Solid	One of the following: • No AC power to this PSU only (for 1+1 configuration) • Power supply critical event causing a shutdown: Failure, fuse blown (1+1 only), OCP, OVP, fan failed.
	Blink	Power supply warning events where the power supply continues to operate: high temp, high power, high current, slow fan
Off	Off	No AC power to all power supplies

Table 18: Power supply indicator light states for the 1402-C3 model

Color	State	Status
Green	Solid	Output ON and OK
Red	Solid	Power supply critical event causing a shutdown
	Blink	No AC power to this PSU only
Off	Off	No AC power to all power supplies