



Getting Started

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Task Flow

The following procedure shows the basic tasks that should be completed when configuring your Firepower 4100/9300 chassis.

Procedure

- | | |
|----------------|---|
| Step 1 | Configure the Firepower 4100/9300 chassis hardware (see the Cisco Firepower Security Appliance Hardware Installation Guide). |
| Step 2 | Complete the initial configuration (see Initial Configuration , on page 1). |
| Step 3 | Set the Date and Time (see Setting the Date and Time). |
| Step 4 | Configure a DNS server (see Configuring DNS Servers). |
| Step 5 | Register your product license (see License Management for the ASA). |
| Step 6 | Configure users (see User Management). |
| Step 7 | Perform software updates as required (see Image Management). |
| Step 8 | Configure additional platform settings (see Platform Settings). |
| Step 9 | Configure interfaces (see Interface Management). |
| Step 10 | Create logical devices (see Logical Devices). |
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Initial Configuration

Before you can use Firepower Chassis Manager or the FXOS CLI to configure and manage your system, you must perform some initial configuration tasks. You can perform the initial configuration using the FXOS CLI accessed through the console port or using SSH, HTTPS, or REST API accessed through the management port (this procedure is also referred to as low-touch provisioning).

Initial Configuration Using Console Port

The first time that you access the Firepower 4100/9300 chassis using the FXOS CLI, you will encounter a setup wizard that you can use to configure the system.



Note To repeat the initial setup, you need to erase any existing configuration using the following commands:

```
Firepower-chassis# connect local-mgmt  
firepower-chassis(local-mgmt)# erase configuration
```

You must specify only one IPv4 address, gateway, and subnet mask, or only one IPv6 address, gateway, and network prefix for the single management port on the Firepower 4100/9300 chassis. You can configure either an IPv4 or an IPv6 address for the management port IP address.

Before you begin

1. Verify the following physical connections on the Firepower 4100/9300 chassis:
 - The console port is physically connected to a computer terminal or console server.
 - The 1 Gbps Ethernet management port is connected to an external hub, switch, or router.

For more information, refer to the hardware installation guide.

2. Verify that the console port parameters on the computer terminal (or console server) attached to the console port are as follows:
 - 9600 baud
 - 8 data bits
 - No parity
 - 1 stop bit
3. Gather the following information for use with the setup script:
 - New admin password
 - Management IP address and subnet mask
 - Gateway IP address
 - Subnets from which you want to allow HTTPS and SSH access
 - Hostname and domain name
 - DNS server IP address

Procedure

- Step 1** Power on the chassis.

Step 2 Connect to the serial console port using a terminal emulator.

The Firepower 4100/9300 includes an RS-232-to-RJ-45 serial console cable. You might need to use a third party serial-to-USB cable to make the connection. Use the following serial parameters:

- 9600 baud
- 8 data bits
- No parity
- 1 stop bit

Step 3 Complete the system configuration as prompted.

Note You can optionally enter the debug menu at any time during initial configuration to debug any setup issues or abort configurations and reboot the system. To enter the debug menu, press Ctrl-C. To exit the debug menu, press Ctrl-D twice. Note that anything you type in the interim between pressing Ctrl-D the first time and pressing it a second time will run after the second time Ctrl-D is pressed.

Example:

```

---- Basic System Configuration Dialog ----

This setup utility will guide you through the basic configuration of
the system. Only minimal configuration including IP connectivity to
the FXOS Supervisor is performed through these steps.

Type Ctrl-C at any time for more options or to abort configuration
and reboot system.
To back track or make modifications to already entered values,
complete input till end of section and answer no when prompted
to apply configuration.

You have chosen to setup a new Security Appliance.
Continue? (yes/no): y

Enforce strong password? (yes/no) [y]: n

Enter the password for "admin": Farscape&32
Confirm the password for "admin": Farscape&32
Enter the system name: firepower-9300

Supervisor Mgmt IP address : 10.80.6.12

Supervisor Mgmt IPv4 netmask : 255.255.255.0

IPv4 address of the default gateway : 10.80.6.1

The system cannot be accessed via SSH if SSH Mgmt Access is not configured.

Do you want to configure SSH Mgmt Access? (yes/no) [y]: y

SSH Mgmt Access host/network address (IPv4/IPv6): 10.0.0.0

SSH Mgmt Access IPv4 netmask: 255.0.0.0

Firepower Chassis Manager cannot be accessed if HTTPS Mgmt Access is not configured.

Do you want to configure HTTPS Mgmt Access? (yes/no) [y]: y

```

```

HTTPS Mgmt Access host/network address (IPv4/IPv6): 10.0.0.0

HTTPS Mgmt Access IPv4 netmask: 255.0.0.0

Configure the DNS Server IP address? (yes/no) [n]: y

    DNS IP address : 10.164.47.13

Configure the default domain name? (yes/no) [n]: y

    Default domain name : cisco.com

Following configurations will be applied:

Switch Fabric=A
System Name=firepower-9300
Enforced Strong Password=no
Supervisor Mgmt IP Address=10.89.5.14
Supervisor Mgmt IP Netmask=255.255.255.192
Default Gateway=10.89.5.1
SSH Access Configured=yes
    SSH IP Address=10.0.0.0
    SSH IP Netmask=255.0.0.0
HTTPS Access Configured=yes
    HTTPS IP Address=10.0.0.0
    HTTPS IP Netmask=255.0.0.0
DNS Server=72.163.47.11
Domain Name=cisco.com

Apply and save the configuration (select 'no' if you want to re-enter)? (yes/no): y
Applying configuration. Please wait... Configuration file - Ok
.....

Cisco FPR Series Security Appliance
firepower-9300 login: admin
Password: Farscape&32
Successful login attempts for user 'admin' : 1
Cisco Firepower Extensible Operating System (FX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2009-2019, Cisco Systems, Inc. All rights reserved.

[...]

firepower-chassis#

```

Low-Touch Provisioning Using Management Port

When your Firepower 4100/9300 chassis boots up, if it does not find the startup configuration, the device enters the Low-Touch Provisioning mode in which the device locates a Dynamic Host Control Protocol (DHCP) server and then bootstraps itself with its management interface IP address. You can then connect through the management interface to configure the system using SSH, HTTPS, or the FXOS REST API.



Note To repeat the initial setup, you need to erase any existing configuration using the following commands:

```
Firepower-chassis# connect local-mgmt  
firepower-chassis(local-mgmt) # erase configuration
```

You must specify only one IPv4 address, gateway, and subnet mask, or only one IPv6 address, gateway, and network prefix for the single management port on the Firepower 4100/9300 chassis. You can configure either an IPv4 or an IPv6 address for the management port IP address.

Before you begin

Gather the following information for use with the setup script:

- New admin password
- Management IP address and subnet mask
- Gateway IP address
- Subnets from which you want to allow HTTPS and SSH access
- Hostname and domain name
- DNS server IP address

Procedure

Step 1 Configure your DHCP server to assign an IP address to management port of the Firepower 4100/9300 chassis.

The DHCP client request from the Firepower 4100/9300 chassis will contain the following:

- The management interface's MAC address.
- DHCP option 60 (vendor-class-identifier)—Set to "FPR9300" or "FPR4100".
- DHCP option 61 (dhcp-client-identifier)—Set to the Firepower 4100/9300 chassis serial number. This serial number can be found on a pull-out tab on the chassis.

Step 2 Power on the Firepower 4100/9300 chassis.
If the startup configuration is not found when the chassis boots up, the device enters the Low-Touch Provisioning mode.

Step 3 To configure your system using HTTPS:

a) Using a supported browser, enter the following URL in the address bar:

```
https://<ip_address>/api
```

where <ip_address> is the IP address of the management port on the Firepower 4100/9300 chassis that was assigned by your DHCP server.

Note For information on supported browsers, refer to the release notes for the version you are using (see <http://www.cisco.com/c/en/us/support/security/firepower-9000-series/products-release-notes-list.html>).

- b) When prompted, log in with the username **install** and the password `<chassis_serial_number>`.
The `<chassis_serial_number>` can be obtained by inspecting a tag on the chassis.
- c) Complete the system configuration as prompted.
 - Strong password enforcement policy (for strong password guidelines, see [User Accounts](#)).
 - Password for the admin account.
 - System name
 - Supervisor Management IPv4 address and subnet mask, or IPv6 address and prefix.
 - Default gateway IPv4 or IPv6 address.
 - Host/network address and netmask/prefix from which SSH access is allowed.
 - Host/network address and netmask/prefix from which HTTPS access is allowed.
 - DNS Server IPv4 or IPv6 address.
 - Default domain name.
- d) Click **Submit**.

Step 4

To configure your system using SSH:

- a) Connect to the management port using the following command:

```
ssh install@<ip_address>
```

where `<ip_address>` is the IP address of the management port on the Firepower 4100/9300 chassis that was assigned by your DHCP server.

- b) When prompted, log in with the password **Admin123**.
- c) Complete the system configuration as prompted.

Note You can optionally enter the debug menu at any time during initial configuration to debug any setup issues or abort configurations and reboot the system. To enter the debug menu, press Ctrl-C. To exit the debug menu, press Ctrl-D twice. Note that anything you type in the interim between pressing Ctrl-D the first time and pressing it a second time will run after the second time Ctrl-D is pressed.

Example:

```
---- Basic System Configuration Dialog ----
```

```
This setup utility will guide you through the basic configuration of
the system. Only minimal configuration including IP connectivity to
the FXOS Supervisor is performed through these steps.
```

```
Type Ctrl-C at any time for more options or to abort configuration
and reboot system.
```

```
To back track or make modifications to already entered values,
complete input till end of section and answer no when prompted
to apply configuration.
```

```
You have chosen to setup a new Security Appliance.
Continue? (yes/no): y
```

```
Enforce strong password? (yes/no) [y]: n

Enter the password for "admin": Farscape&32
Confirm the password for "admin": Farscape&32
Enter the system name: firepower-9300

Supervisor Mgmt IP address : 10.80.6.12

Supervisor Mgmt IPv4 netmask : 255.255.255.0

IPv4 address of the default gateway : 10.80.6.1

The system cannot be accessed via SSH if SSH Mgmt Access is not configured.

Do you want to configure SSH Mgmt Access? (yes/no) [y]: y

SSH Mgmt Access host/network address (IPv4/IPv6): 10.0.0.0

SSH Mgmt Access IPv4 netmask: 255.0.0.0

Firepower Chassis Manager cannot be accessed if HTTPS Mgmt Access is not configured.

Do you want to configure HTTPS Mgmt Access? (yes/no) [y]: y

HTTPS Mgmt Access host/network address (IPv4/IPv6): 10.0.0.0

HTTPS Mgmt Access IPv4 netmask: 255.0.0.0

Configure the DNS Server IP address? (yes/no) [n]: y

DNS IP address : 10.164.47.13

Configure the default domain name? (yes/no) [n]: y

Default domain name : cisco.com

Following configurations will be applied:

Switch Fabric=A
System Name=firepower-9300
Enforced Strong Password=no
Supervisor Mgmt IP Address=10.89.5.14
Supervisor Mgmt IP Netmask=255.255.255.192
Default Gateway=10.89.5.1
SSH Access Configured=yes
SSH IP Address=10.0.0.0
SSH IP Netmask=255.0.0.0
HTTPS Access Configured=yes
HTTPS IP Address=10.0.0.0
HTTPS IP Netmask=255.0.0.0
DNS Server=72.163.47.11
Domain Name=cisco.com

Apply and save the configuration (select 'no' if you want to re-enter)? (yes/no): y
Applying configuration. Please wait... Configuration file - Ok
.....

Initial Setup complete, Terminating sessions
.Connection to <ip_address> closed.
```

Step 5 To configure your system using the FXOS REST API:

Use the following examples for configuring the system using the REST API. For more information, see <https://developer.cisco.com/site/ssp/firepower/>.

Note The attributes `dns`, `domain_name`, `https_net`, `https_mask`, `ssh_net`, and `ssh_mask` are optional. All other attributes are mandatory for REST API configuration.

IPv4 REST API example:

```
{
  "fxosBootstrap": {
    "dns": "1.1.1.1",
    "domain_name": "cisco.com",
    "mgmt_gw": "192.168.0.1",
    "mgmt_ip": "192.168.93.3",
    "mgmt_mask": "255.255.0.0",
    "password1": "admin123",
    "password2": "admin123",
    "strong_password": "yes",
    "system_name": "firepower-9300",
    "https_mask": "2",
    "https_net": ":",
    "ssh_mask": "0",
    "ssh_net": ":"
  }
}
```

IPv6 REST API example

```
{
  "fxosBootstrap": {
    "dns": "2001::3434:4343",
    "domain_name": "cisco.com",
    "https_mask": "2",
    "https_net": ":",
    "mgmt_gw": "2001::1",
    "mgmt_ip": "2001::2001",
    "mgmt_mask": "64",
    "password1": "admin123",
    "password2": "admin123",
    "ssh_mask": "0",
    "ssh_net": ":",
    "strong_password": "yes",
    "system_name": "firepower-9300"
  }
}
```

Accessing the FXOS CLI

You can connect to the FXOS CLI using a terminal plugged into the console port. Verify that the console port parameters on the computer terminal (or console server) attached to the console port are as follows:

- 9600 baud
- 8 data bits
- No parity

- 1 stop bit

You can also connect to the FXOS CLI using SSH and Telnet. The FXOS supports up to eight simultaneous SSH connections. To connect with SSH, you need to know the hostname or IP address of the Firepower 4100/9300 chassis.

Use one of the following syntax examples to log in with SSH, Telnet, or Putty:



Note SSH log in is case-sensitive.

From a Linux terminal using SSH:

- **ssh ucs-auth-domain \username@{UCSM-ip-address | UCMS-ipv6-address}**

```
ssh ucs-example\jsmith@192.0.20.11
ssh ucs-example\jsmith@2001::1
```
- **ssh -l ucs-auth-domain \username {UCSM-ip-address | UCSM-ipv6-address | UCSM-host-name}**

```
ssh -l ucs-example\jsmith 192.0.20.11
ssh -l ucs-example\jsmith 2001::1
```
- **ssh {UCSM-ip-address | UCSM-ipv6-address | UCSM-host-name} -l ucs-auth-domain \username**

```
ssh 192.0.20.11 -l ucs-example\jsmith
ssh 2001::1 -l ucs-example\jsmith
```
- **ssh ucs-auth-domain \username@{UCSM-ip-address | UCSM-ipv6-address}**

```
ssh ucs-ldap23\jsmith@192.0.20.11
ssh ucs-ldap23\jsmith@2001::1
```

From a Linux terminal using Telnet:



Note Telnet is disabled by default. See [Configuring Telnet](#) for instructions on enabling Telnet.

- **telnet ucs-UCSM-host-name ucs-auth-domain \username**

```
telnet ucs-qa-10
login: ucs-ldap23\bladmin
```
- **telnet ucs-{UCSM-ip-address | UCSM-ipv6-address} ucs-auth-domain \username**

```
telnet 10.106.19.12 2052
ucs-qa-10-A login: ucs-ldap23\bladmin
```

From a Putty client:

- Login as: **ucs-auth-domain \username**

```
Login as: ucs-example\jsmith
```



Note If the default authentication is set to local, and the console authentication is set to LDAP, you can log in to the fabric interconnect from a Putty client using `ucs-local\admin`, where admin is the name of the local account.
