Configuring

NAT/Route mode

You would typically use NAT/Route mode when the unit is deployed as a gateway between private and public networks. In its default NAT/Route mode configuration, the unit functions as a firewall. Firewall policies control communications through the unit.

Transparent mode

You would typically use the unit in Transparent mode on a private network behind an existing firewall or behind a router. In its default Transparent mode configuration, the unit functions as a firewall.

Web-based Manager

1. Connect the unit's internal interface to a management computer Ethernet interface. Use a cross-over Ethernet cable to connect the devices directly. Use straight-through Ethernet cables to connect the devices through a hub or switch.
2. Configure the management computer to be on the same subnet as the internal interface of the unit. To do this, change the IP address of the management computer to 192.168.1.2 and the netmask to 255.255.255.0.
3. To access the web-based manager, start Internet Explorer and browse to https://192.168.1.99 (remember to include the "s" in https://).
4. Type admin in the Name field and select Login.

NAT/Route mode

To change the administrator password

1. Go to *System* > *Admin* > *Administrators*.
2. Select Change Password for the admin administrator and enter a new password.

To configure interfaces

1. Go to System > Network > Interface.
2. Select the edit icon for each interface to configure.
3. Set the addressing mode for the interface. (See the online help for information.)
   - For manual addressing, enter the IP address and netmask for the interface.
   - For DHCP addressing, select DHCP and any required settings.
   - For PPPoE addressing, select PPPoE, and enter the username and password and any other required settings.

To configure the Primary and Secondary DNS server IP addresses

1. Go to System > Network > Options, enter the Primary and Secondary DNS IP addresses that you recorded above and select Apply.

To configure a Default Gateway

1. Go to Router > Static and select Edit icon for the static route.
2. Set Gateway to the Default Gateway IP address you recorded above and select OK.

Transparent mode

To switch from NAT/route mode to transparent mode

1. Go to System > Config > Operation Mode and select Transparent.
2. Set the Management IP/Netmask to 192.168.1.99/24.
3. Set a default Gateway and select Apply.

To change the administrator password

1. Go to System > Admin > Administrators.
2. Select Change Password for the admin administrator and enter a new password.

To change the management interface

1. Go to System > Config > Operation Mode.
2. Enter the Management IP address and netmask that you recorded above and select Apply.

To configure the Primary and Secondary DNS server IP addresses

1. Go to System > Network > Options, enter the Primary and Secondary DNS IP addresses that you recorded above and select Apply.

Command Line Interface

1. Use the RJ-45 to DB9 serial cable to connect to the Console port to the management computer serial port.
2. Start a terminal emulation program (HyperTerminal) on the management computer. Use these settings: Baud Rate (bps) 9600, Data bits 8, Parity None, Stop bits 1, and Flow Control None.
3. At the Login: prompt, type `admin` and press Enter twice (no password required).

NAT/Route mode

1. Configure the FortiCarrier internal interface.

```
config system interface
    edit internal
        set ip <intf_ip>/<netmask_ip>
end
```

2. Repeat to configure each interface, for example, to configure the Port 1 interface.

```
config system interface
    edit port1
        ...
```

3. Configure the primary and secondary DNS server IP addresses.

```
config system dns
    set primary <dns-server_ip>
    set secondary <dns-server_ip>
end
```

4. Configure the default gateway.

```
config router static
    edit 1
        set gateway <gateway_ip>
end
```

Transparent Mode

1. Change from NAT/Route mode to Transparent mode and configure the Management IP address.

```
config system settings
    set opmode transparent
    set manageip <mng_ip>/<netmask>
    set gateway <gateway_ip>
end
```

2. Configure the DNS server IP address.

```
config system dns
    set primary <dns-server_ip>
    set secondary <dns-server_ip>
end
```

Visit these links for more information and documentation for your Fortinet product:

Technical Documentation - **http://docs.fortinet.com** Fortinet Knowledge Center - **http://kb.fortinet.com**
Technical Support - **http://support.fortinet.com** Training Services - **http://campus.training.fortinet.com**

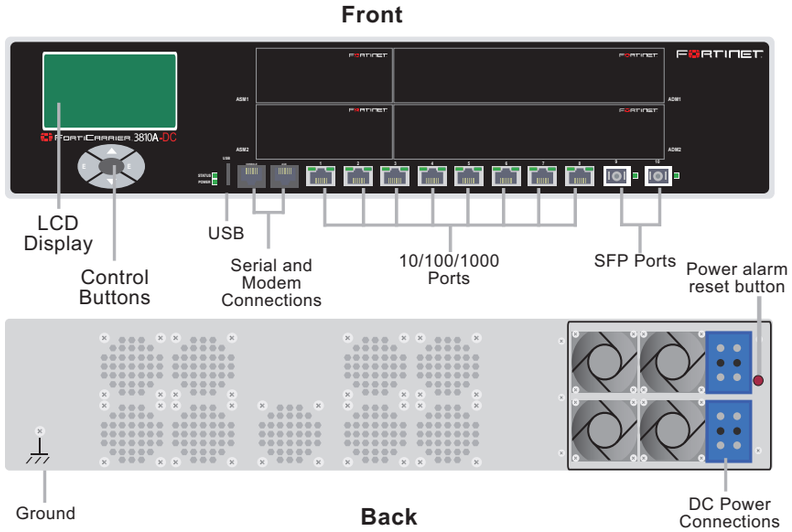
FortiCarrier-3810A-DC

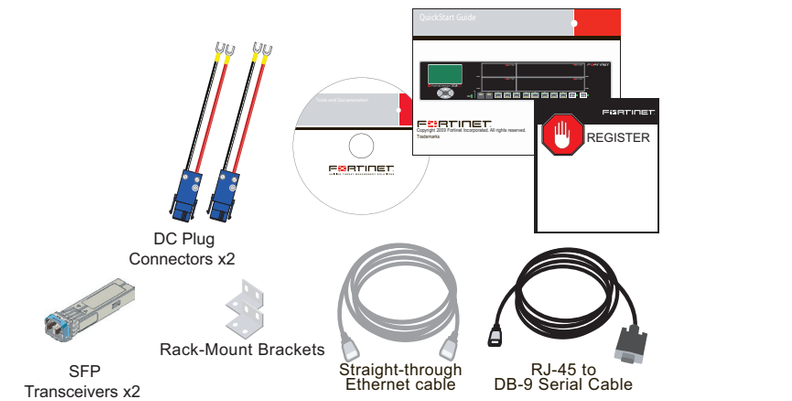
DC Power Required	-48V DC (-36 ~ -72V DC/500W Max)
Power Consumption (average)	275 W
Dimensions	3.5 in (8.89 cm) x 16.9 in (42.93 cm) x 18.5 in (46.99 cm)
USB ports	1
Network Interfaces	8 10/100/1000 interfaces 2 1GB SFP interfaces
Expansion Bays	2 single width Advanced Mezzanine Card (AMC) 2 double width Advanced Mezzanine Card (AMC)

Regulatory Compliance
FCC Class A, Part 15, UL/CUL, C Tick, CE, VCCI
21 December 2009

01-413-115934-20091221

Package Contents





Factory Defaults

Administrator user name	admin
Administrator password	(none)
NAT/Route mode	
Port 1 interface	192.168.1.99
Port 2 interface	192.168.100.99
Port 3	192.168.101.99
DHCP server on Internal interface	192.168.1.110 – 192.168.1.210

To reset the FortiGate unit to the factory defaults, in the CLI type the command:

```
execute factory reset
```

LED Description

LED		State	Description
Power		Green	The unit is on.
		Off	The unit is off.
Status		Green	The unit is running normally.
		Flashing Green	The unit is starting up.
Port 1 to 8	Link	Green	Port is online
		Flashing Green	Port is receiving or sending data.
	Activity	Green	Connected at 1000 Mbps.
		Amber	Connection at 100 Mbps.
		Off	Connection at 10 Mbps.
Ports 9 and 10		Green	Port is online.
		Flashing Green	Port is receiving or sending data.

Connecting

Connect the following to the unit. Ensure the FortiCarrier unit is placed on a stable surface.

- Insert a network cable to the ports on the FortiCarrier unit. Insert the other end to the router connected to the Internet, or to the modem.
- Connect a network cable to Port 1. Insert the other end to a computer or switch.

Connect the FortiCarrier-3810A-DC chassis to data center DC power using the redundant power input connectors on the back panel. If required, install terminal lugs on the wires before connecting them to the power input connectors.

- Using the DC Plug connector, connect the red spade terminal to the DC power supply 0V (Return).
- Using the DC Plug connector, connect the black spade terminal to the DC power supply -48V.
- Using the DC Plug connector, insert the blue connector end into the DC power outlets on the back of the FortiCarrier unit. If only one power supply is connected, an audible alarm sounds to indicate a failed power supply. To stop this alarm, press the red Power Alarm Reset button.

Note: A 20A circuit breaker is required.

CAUTION: This equipment is designed to permit the connection of the earthed conductor of the DC supply circuit to the earthing conductor at the equipment. See the *Install Guide* for information on connecting the power supply.

To install the transceivers

1. Remove the caps from SFP cage sockets on the front panel.
2. Hold the sides of the SFP transceiver and slide the SFP transceiver into the cage socket until it clicks into place.

Caution: Do not force the SFP transceivers into the cage slots. You can damage the connector if handling the SFP transceivers by holding the release Latch. If the transceiver does not easily slide in and click into place, it may not be aligned correctly or may be upside down. If this happens, remove the SFP transceiver, realign it or rotate it and slide it in again.

Interface Description

Connector	Type	Speed	Protocol	Description
Ports 1 to 8	RJ-45	1000 Base-T	Ethernet	Copper gigabit connection to 10/100/1000 copper networks.
Ports 9 and 10	LC SFP	1000Base-SX	Ethernet	Multimode fiber optic connections to gigabit optical networks for small packet performance required for voice, video and other multimedia streaming applications.
CONSOLE	RJ-45	9600 bps 8/N/1	RS-232 serial	Optional connection to the management computer. Provides access to the command line interface (CLI).
USB	USB		USB	Optional connection to a USB key for firmware backup and installation.

Configuration Tools

Web Config

The Web Config is an easy to use management tool. Use it to configure the administrator password, the interface and default gateway addresses, and the DNS server addresses.

Requirements:

- An Ethernet connection between the unit and management computer.
- A web browser such as FireFox or Internet Explorer on the management computer.

Command Line Interface (CLI)

The CLI is a full-featured management tool. Use it to configure the administrator password, the interface addresses, the default gateway address, and the DNS server addresses. To configure advanced settings, see the Tools and Documentation CD included with the FortiGate unit.

Requirements:

- The RJ-45 to DB9 serial connection between the unit and management computer.
- A terminal emulation application (HyperTerminal for Windows) on the management computer.