DLP-1

R71

Getting Started Guide

Models: P-20, U-40

11 July 2010
Important Information

Latest Version
The latest version of this document is at:
http://supportcontent.checkpoint.com/documentation_download?ID=10832
For additional technical information about Check Point visit Check Point Support Center
(http://supportcenter.checkpoint.com).

Revision History

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<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 May 2010</td>
<td>Initial version</td>
</tr>
<tr>
<td>11 July 2010</td>
<td>Added Configuring Active Directory and LDAP for DLP (on page 21).</td>
</tr>
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</table>

Feedback
Check Point is engaged in a continuous effort to improve its documentation.
Please help us by sending your comments
(mailto:cp_techpub_feedback@checkpoint.com?subject=Feedback on DLP-1 R71 Getting Started Guide).
Health and Safety Information

Read the following warnings before setting up or using the appliance.

**Warning** - Do not block air vents. A minimum 1/2-inch clearance is required.

**Warning** - This appliance does not contain any user-serviceable parts. Do not remove any covers or attempt to gain access to the inside of the product. Opening the device or modifying it in any way has the risk of personal injury and will void your warranty. The following instructions are for trained service personnel only.

To prevent damage to any system board, it is important to handle it with care. The following measures are generally sufficient to protect your equipment from static electricity discharge:

- When handling the board, to use a grounded wrist strap designed for static discharge elimination.
- Touch a grounded metal object before removing the board from the antistatic bag.
- Handle the board by its edges only. Do not touch its components, peripheral chips, memory modules or gold contacts.
- When handling processor chips or memory modules, avoid touching their pins or gold edge fingers.
- Restore the communications appliance system board and peripherals back into the antistatic bag when they are not in use or not installed in the chassis. Some circuitry on the system board can continue operating even though the power is switched off.
- Under no circumstances should the lithium battery cell used to power the real-time clock be allowed to short. The battery cell may heat up under these conditions and present a burn hazard.

**Warning** - DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER’S INSTRUCTIONS.

- Disconnect the system board power supply from its power source before you connect or disconnect cables or install or remove any system board components. Failure to do this can result in personnel injury or equipment damage.
- Avoid short-circuiting the lithium battery; this can cause it to superheat and cause burns if touched.
- Do not operate the processor without a thermal solution. Damage to the processor can occur in seconds.

For California:

**Perchlorate Material** - special handling may apply. See http://www.dtsc.ca.gov/hazardouswaste/perchlorate

The foregoing notice is provided in accordance with California Code of Regulations Title 22, Division 4.5, Chapter 33. Best Management Practices for Perchlorate Materials. This product, part, or both may include a lithium manganese dioxide battery which contains a perchlorate substance.

**Proposition 65 Chemical**

Chemicals identified by the State of California, pursuant to the requirements of the California Safe Drinking Water and Toxic Enforcement Act of 1986, California Health & Safety Code s. 25249.5, et seq. ("Proposition 65"), that is “known to the State to cause cancer or reproductive toxicity” (see http://www.calepa.ca.gov)

**WARNING:**

Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.
Federal Communications Commission (FCC) Statement:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Information to user:

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

Canadian Department Compliance Statement:

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Japan Class A Compliance Statement:

European Union (EU) Electromagnetic Compatibility Directive


This product is in conformity with Low Voltage Directive 2006/95/EC, and complies with the requirements in the Council Directive 2006/95/EC relating to electrical equipment designed for use within certain voltage limits and the Amendment Directive 93/68/EEC.

Product Disposal

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office or your household waste disposal service.
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Chapter 1

Introduction

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Welcome

Thank you for choosing Check Point's DLP-1. We hope that you will be satisfied with this solution and our support services. Check Point products provide your business with the most up to date and secure solutions available today.

Check Point also delivers worldwide technical services including educational, professional and support services through a network of Authorized Training Centers, Certified Support Partners and Check Point technical support personnel to ensure that you get the most out of your security investment.

For additional information on the Internet Security Product Suite and other security solutions, refer to the Check Point Web site (http://www.checkpoint.com), or call Check Point at 1(800) 429-4391. For additional technical information about Check Point products, consult the Check Point Support Center (http://supportcenter.checkpoint.com).

Welcome to the Check Point family. We look forward to meeting all of your current and future network, application and management security needs.

DLP-1 Overview

Check Point revolutionizes DLP by moving from detection to prevention of data loss incidents.

Prevents data loss of critical business information

- Stops sending or uploading sensitive information outside the organization.
- Network-based solution prevents breach of corporate data sharing policies – intentional or unintentional.
- Provide easy compliance with data protection standards (such as PCI-DSS, HIPPA, GLBA, SOX).

Combines technology and processes to make DLP work

- Innovative MultiSpect™ data classification engine combines users, content and process into accurate decisions.
- New UserCheck™ technology empowers users to remediate incidents in real time.
- Self-educating system – does not require IT/security personnel in incident handling while educating the users on proper data sharing policies.

Easy deployment for immediate data loss prevention

- Implement a preventative DLP solution on your existing gateway in less than one day
- Leverage over 250 pre-defined policies to create your own policy without the need for costly professional services
- Get better control and auditing capabilities with centralized security management
This document provides:

- A brief overview of essential DLP-1 concepts and features
- A step by step guide to getting DLP-1 up and running

Note - Screen shots in this guide may apply only to the highest model to which this guide applies.

Shipping Carton Contents

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appliance</td>
<td>A single DLP-1 appliance.</td>
</tr>
<tr>
<td>Rack Mounting Accessories</td>
<td>Hardware mounting kit.</td>
</tr>
</tbody>
</table>
| Cables                    | • 2 Power cables for DLP-1 9571  
  or  
  1 Power cable for DLP-1 2571  
  • 1 Standard RJ-45 network cable  
  • 1 Serial console cable  
  • 1 RJ-45 loopback plug (DLP-1 9571 only) |
| CD                        | Includes the following:  
  • DLP-1 Getting Started Guide (this guide)  
    (http://supportcontent.checkpoint.com/documentation_download?ID=10832)  
  • Data Loss Prevention R71 Administration Guide  
    (http://supportcontent.checkpoint.com/documentation_download?ID=10323)  
  • Check Point R71 Software Blades documentation |
| Documentation             | User license agreement.                                                    |

Terminology

The following terms are used in this guide:

- **Security Gateway**: The Check Point security engine that enforces the organization’s security policy and acts as a security enforcement point.

- **Security Policy**: The policy created by the system administrator that regulates the flow of incoming and outgoing communication.

- **Security Management Server**: The server used by the system administrator to manage the security policy. The organization’s databases and security policies are stored on the Security Management Server and downloaded to the gateway.

- **SmartConsole**: GUI applications that are used to manage various aspects of security policy enforcement. For example, SmartView Tracker is a SmartConsole application that manages logs.

- **SmartDashboard**: A SmartConsole GUI application that is used by the system administrator to create and manage the security policy.

Terms that are specific to DLP-1:

- **DLP gateway**: A Security Gateway with the Data Loss Prevention Software Blade.
Terminology

- **UserCheck**: An application that is installed on user computers. As soon as a user sends sensitive information, a pop-up from the UserCheck client automatically notifies the user and allows the user to decide how to handle the incident.

- **DLP Portal**: A Web portal for users to handle incidents. Users can review the incidents and decide whether to send or discard the traffic. They can also view existing incidents that have not yet been handled.
Chapter 2

Configuring DLP-1

The workflow for configuring DLP-1 is:

1. Mount the DLP-1 in the rack.
2. Connect the cables and power on.
3. Perform the initial configuration.
4. Add the DLP-1 object in SmartDashboard and install a policy.

Note - Security Management Server is not installed locally on DLP-1. In a production environment, DLP-1 appliances should be centrally managed.

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- Connecting the Power Cables and Power On 13
- Using the First Time Configuration Wizard 14
- Configuring the DLP-1 Object in SmartDashboard 19
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Mounting DLP-1 in a Rack

Mount the system in the rack with the network ports facing the front of the rack.
The following diagram applies to DLP-1 9571 only:

Figure 2-1 Installing DLP-1

Connecting the Power Cables and Power On

1. Connect the power cables.
2. On the back panel, turn on the Power button to start the appliance.

   Note - DLP-1 9571 only: When a power supply fails or is not connected to the outlet, an alarm sounds continuously. If you hear the alarm, replace the faulty power supply immediately, and connect the new unit to an A/C outlet ("Removing the Power Supply" on page 35).

3. Wait for the appliance to initialize and boot. The status of the appliance appears on the LCD screen. The appliance is ready for use when the model number is displayed.
Using the First Time Configuration Wizard

Perform the initial configuration of DLP-1 using the First Time Configuration Wizard. At any time you can click Quit to exit the wizard. Click Next to move to the next page.

Starting the First Time Configuration Wizard

1. Connect a standard network cable to the appliance's management interface and to your management network.
   The management interface is marked Mgmt. This interface is preconfigured with the IP address 192.168.1.1.

2. Connect to the management interface by connecting from a computer on the same network subnet as the management interface (for example, with IP address 192.168.1.x and netmask 255.255.255.0). This can be changed later through the management interface.

3. To access the administration interface, initiate a connection from a browser to the default administration IP address: https://192.168.1.1:4434.

   Note - Pop-ups must always be allowed on https://<appliance_ip_address>.

   The login page appears.

4. Log in with the default system administrator login name/password: admin/admin, and click Login.

5. Change the administrator password, as prompted. The default password is provided to allow you access to DLP-1. For security purposes, you must change it to a more secure password.
   In the Password recovery login token section, you can download a Login Token that can be used in the event a password is forgotten. It is highly recommended to save and store the password recovery login token file in a safe place.

6. The First-Time Configuration Wizard runs. The Wizard presents a number of windows, in which you are prompted to configure DLP-1.

   Note - The features configured in the wizard are accessible after completing the wizard via the WebUI menu. The WebUI menu can be accessed by navigating to https://<ip_address>:4434.
Welcome

The Welcome page introduces DLP-1.

Date and Time Setup

Configure date and time in the Date and Time Setup page. Click Apply.

Operating Mode

Define the operating mode of DLP:

Inline Bridge Mode

In a standard configuration, DLP is deployed in the internal network as a layer 2 bridge that is transparent to the IP network. The bridge links a pair of interfaces (an Inline Pair).

- **Inline Bridge, Fail Open:** This option is supported for DLP-1 with the bypass card. Fail Open is also known as Bypass Mode. If the appliance fails in some way, the bypass card enters a Bypass Mode in which all traffic runs from one port to the other without inspection. Choose the Inline Pair of ports that will make up the bridge:
  - For DLP-1 2571: either ports Lan1 and Lan2, or ports Lan3 and Lan4.
  - For DLP-1 9571: Depends on the expansion slot where the bypass card is installed. Either ports Exp2-1 and Exp2-2, or ports Exp2-3 and Exp2-4, or ports Exp1-1 and Exp1-2, or ports Exp1-3 and Exp1-4.
On the front panel of all DLP-1 models, the bypass card ports are labelled 1, 2, 3 and 4 respectively. See the screenshot and the diagram:

DLP-1 enters Bypass Mode if one of the following occurs:

- DLP-1 suffers a power loss.
- DLP-1 stops responding — after about 1 minute.
- DLP-1 stops responding at least 20 times in one hour — enters bypass mode for 5 minutes.
- DLP-1 has High CPU usage and packet drop on the interface — enters bypass mode for 1 minute.

- **Inline Bridge, Fail Close**: Use this option to configure bridge interface without bypass card. Choose any two interfaces as the members of the Inline Pair that will make up the bridge.

- **Inline Pair IP Address (Used for DLP Portal)** and **Inline Pair Netmask**: It is recommended to set an IP address and Netmask on the bridge interface that is used for the DLP portal (the Web portal for users to handle incidents), and for UserCheck (an application that is installed on user computers that automatically notifies the user that sensitive information has been sent and allows him or her to decide how to handle the incident). This IP address must be DNS resolvable.
Routing mode

In this mode DLP acts as a router that forwards IP packets between different networks. You must define an IP address for at least two ports in the **Network Connections** page of this First Time Configuration Wizard.

Network Connections

Configure Network Connections in the **Network Connections** page.

```
<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Member Of</th>
<th>IP Address</th>
<th>Netmask</th>
<th>Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>lan0</td>
<td>Bridge</td>
<td></td>
<td>192.168.5.0</td>
<td>255.255.255.0</td>
<td>up</td>
<td></td>
</tr>
<tr>
<td>lan1</td>
<td>Ethernet</td>
<td>br0</td>
<td></td>
<td></td>
<td>down</td>
<td></td>
</tr>
<tr>
<td>lan2</td>
<td>Ethernet</td>
<td>br0</td>
<td></td>
<td></td>
<td>down</td>
<td></td>
</tr>
<tr>
<td>lan3</td>
<td>Ethernet</td>
<td></td>
<td></td>
<td></td>
<td>disabled</td>
<td></td>
</tr>
<tr>
<td>lan4</td>
<td>Ethernet</td>
<td></td>
<td></td>
<td></td>
<td>disabled</td>
<td></td>
</tr>
<tr>
<td>br0</td>
<td>Ethernet</td>
<td></td>
<td>192.168.1.1</td>
<td>255.255.255.0</td>
<td>up</td>
<td></td>
</tr>
</tbody>
</table>
```

This page show the bridge interfaces (if defined), the ports that belong to the bridge interfaces, and the status of the interfaces.

If you change the **Mgmt** IP address, connectivity will be preserved. A secondary IP address is created automatically on the interface to preserve connectivity. The IP address that is not needed can be removed after the wizard is completed by connecting to the Web UI, and editing the interface in the **Network > Network Connections** page.

Routing Table

Configure Routing on the **Routing Table** page.

If you configured DLP-1 in Inline Bridge Mode, you must configure a default route (select **New > Default Route**)

```
<table>
<thead>
<tr>
<th>Destination</th>
<th>Netmask</th>
<th>Gateway</th>
<th>Metric</th>
<th>Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>192.168.1.0</td>
<td>255.255.255.0</td>
<td></td>
<td>0</td>
<td>Mgmt</td>
</tr>
<tr>
<td>192.168.5.0</td>
<td>255.255.255.0</td>
<td></td>
<td>0</td>
<td>br0</td>
</tr>
<tr>
<td>default</td>
<td>0.0.0.0</td>
<td>192.168.1.254</td>
<td>0</td>
<td>Mgmt</td>
</tr>
</tbody>
</table>
```

It is recommended that the default route is via an external DLP-1 interface (an interface that faces outside the organization).
Host and Domain Name

Define the hostname, domain name and DNS servers configuration in the DNS and Domain Settings page. The host name must start with a letter and cannot be named Com1, Com2, … , Com9. The IP address of the bridge interface must be DNS resolvable.

Web and SSH Clients

In the Web/SSH Clients page, a list of configured client IPs is displayed. Only the configured client IPs are permitted to access SecurePlatform and SSH services. You can add or remove a Web/SSH client.

To remove a Web/SSH client:

- Select the specific Web/SSH client checkbox and click Remove.

To add a Web/SSH client:

1. In the Web/SSH Clients page, click Add. The Add Web/SSH Client page is displayed.
2. Define the host with any of the following list of options:
   - IP address
   - Resolvable name (resolved locally, not by DNS)
   - "Any" - Enables a connection from any Web/SSH Client.
   - Wildcards - Use in IP format only (Right: 192.168.10.* Wrong: *.company.com).
3. Click Apply.

Secure Internal Communication (SIC) Setup

In the Secure Internal Communication page, enter a SIC Activation Key. Keep a record of the key because you will need to enter it again in SmartDashboard, in the General Properties page of the DLP-1 gateway object when establishing Secure Internal Communication between the DLP-1 and the Security Management Server that will manage it.

Summary

The Summary page appears. For example:

In order to install a Security Policy, you should define this Gateway in SmartDashboard and initialize Secure Internal Communication (SIC) by entering the same Activation Key that you specified in this First Time Configuration Wizard.

After successfully configuring Check Point DLP-1, you have a 15 day trial period in which you can use DLP-1.

Check Point DLP-1 will be configured as:
- Management Type: Centrally Managed
- GUI Client: Any
- Inline Bridge Pair: Lan1 / Lan2
- Default Router: 192.168.1.254
- Hostname: dlpgw

In order to complete the configuration wizard, click on 'Finish' button. This will initialize the appliance, it will take several minutes to complete.

Click Finish to complete the First-Time Configuration Wizard. The machine will automatically restart. This may take several minutes.

Note - It is recommended to backup the system configuration for system recovery purposes. The backup menu can be accessed via the WebUI interface under the Appliance menu.
Configuring the DLP-1 Object in SmartDashboard

Configure the DLP-1 appliance as a gateway object in the SmartDashboard. If you wish, you can change the default DLP policy.

Creating the DLP-1 Gateway Object

When adding a DLP gateway for the first time, it is recommended to do so from a computer that is in the internal network and uses Microsoft Active Directory. This allows the Data Loss Prevention wizard to configure the Active Directory settings automatically.

You can configure DLP-1 to access a Microsoft Active Directory or LDAP server to:

- Authenticate to the DLP Portal using Active Directory credentials
- Authenticate to UserCheck using Active Directory credentials
- Define Active Directory or LDAP groups to be used in the DLP rulebase
- Define the My Organization object

If you run the wizard from a computer in the Active Directory domain, the Data Loss Prevention Wizard will ask for your Active Directory credentials to create the LDAP account unit automatically. Otherwise, you can run the wizard again later from a computer in the Active Directory domain to create the LDAP account unit. ("Rerunning the Data Loss Prevention Wizard" on page 22)

To create the DLP gateway object:
1. Open SmartDashboard
2. Select Network Objects > Check Point > DLP-1 Gateway.
   The Data Loss Prevention Wizard starts.
3. In the Email Domain and Active Directory page, configure the email domain for your organization. If the SmartDashboard computer is in the Active Directory domain, select Connect to Active Directory and type your authentication credentials.
4. In the **DLP Portal and Email Notifications** page:

   ![Data Loss Prevention Wizard](image)

   Enter the
   - Fully Qualified Domain Name of the DLP-1 gateway. Use the DNS name of the Inline Bridge IP that you configured in the DLP-1 First Time Configuration Wizard.
   - Mail Server that the DLP-1 Gateway should access.

### Completing the Gateway Settings and Defining Topology

Click **Finish**. The **Data Loss Prevention Blade setup is completed** window opens.

In this window you can see the details of the wizard setup.

To change the DLP gateway settings, open the Properties of the gateway object: double-click the gateway object in the **Network Objects** tree.
The DLP-1 gateway General Properties window opens.

To complete gateway settings and define topology:
1. Configure the DLP gateway object:
   a) Name
   b) IP address for management
   c) Initialize SIC (Secure Internal Communication).
2. To configure the topology of the gateway:
   a) In the DLP gateway object window, click **Topology**.
   b) Click **Get**.
   c) Verify that the internal and external interfaces are correct and modify if needed.
   Note that a pair of bridged interfaces share the same IP address.

**Configuring Active Directory and LDAP for DLP**

You can configure DLP-1 to access a Microsoft Active Directory or LDAP server to:
- Authenticate to the DLP Portal using Active Directory credentials
- Authenticate to UserCheck using Active Directory credentials
- Define Active Directory or LDAP groups to be used in the DLP rulebase
- Define the **My Organization** object

If you run the wizard from a computer in the Active Directory domain, the Data Loss Prevention Wizard will ask for your Active Directory credentials to create the LDAP account unit automatically. Otherwise, you can run the wizard again later from a computer in the Active Directory domain to create the LDAP account unit. (*Rerunning the Data Loss Prevention Wizard* on page 22)
To configure DLP to use Active Directory LDAP:
1. Create the DLP gateway object in SmartDashboard from a computer that is a member of the Active Directory domain.
2. Enter your Active Directory credentials in the Active Directory page.
   You are not required to enter credentials with administrator privileges. We recommend that you create an Active Directory account that is dedicated for use by Check Point products to connect to Active Directory.
3. When you complete the wizard, the LDAP account unit is created automatically.
   If you have multiple Active Directory servers:
   a) Review the created account unit.
   b) Remove unnecessary servers.
   c) Assign appropriate priorities to the remaining servers.

   **Note** - The DLP Wizard will ask for Active Directory credentials only if no LDAP account unit exists.

   If you already have an LDAP account unit, the wizard will not ask for your credentials. To create the LDAP account unit from the DLP Wizard, delete the existing LDAP account unit and run the wizard again.

If you need more LDAP account units, you can create the LDAP account unit manually. To do this, refer to the R71 Security Management Administration Guide (http://supportcontent.checkpoint.com/documentation_download?ID=10315).

   **Note** - When you configure the LDAP Account Unit manually, if you are using the username and password authentication method, you must set the Default Authentication Scheme to Check Point Password.

**Rerunning the Data Loss Prevention Wizard**

If you run the wizard from a computer that is not part of the Active Directory domain, you can run the DLP Wizard again later from a computer in the Active Directory domain to create the LDAP account unit.

**To run the Data Loss Prevention Wizard again:**
1. Open the SmartDashboard.
2. Select **Network Objects > Check Point > DLP-1 Gateway**.
3. In the **General Properties page**, change the **Hardware** from DLP-1 to something else.
4. Change the **Version** from R71 to something else.
5. Change the **Hardware** back to DLP-1.

The Data Loss Prevention Wizard starts.

**Data Loss Prevention Settings**

Data Loss Prevention settings can be modified from the SmartDashboard Data Loss Prevention tab.

In this window you can quickly see the status of DLP Security Gateways and incidents and access the windows for the most urgent or commonly-used management actions.

By default, The DLP-1 installation comes with a default DLP policy where all rules are in Detect mode.

**Firewall Security Policy Settings**

The DLP-1 gateway comes with a default firewall security policy and there is no need to configure any firewall security rules for the DLP-1 gateway to function.
Advanced Configuration

Advanced configuration can be done using the `sysconfig` menu which can be accessed using the command line interface only. For example, configuring the appliance to be a DHCP server.

Note - The `sysconfig` menu is only available after running the First Time Configuration Wizard in the WebUI.

CLI access can be obtained by console connection or through SSH.

Connecting to the DLP-1 CLI

You can connect to the command line interface of the DLP-1 appliance using:

- The provided serial console cable (DTE to DTE) and terminal emulation software such as HyperTerminal (from Windows) or Minicom (from Unix/Linux systems).
  Connection parameters for DLP-1 appliances are: 9600bps, no parity, 1 stop bit (8N1).
- An SSH connection to the management interface (if sshd is configured).
Chapter 3

DLP-1 2571 Hardware

This chapter describes the DLP-1 2571 front panel and how to manage the appliance using the LCD panel.

In This Chapter

DLP-1 2571 Front Panel ........................................... 25
Managing DLP-1 2571 Using the LCD Panel .......... 26
DLP-1 2571 Front Panel

This section describes the DLP-1 2571 front panel components and LEDs.

Key | Description
--- | ---
1 | LCD display screen
2 | Keypad for the LCD display. Described in the next section.
3 | Reset Function: This button forcibly reboots the appliance. The button is recessed into the appliance chassis to prevent accidental reboot. This button does not light up.
4 | USB ports
5 | Console port - for a serial connection to the appliance using a terminal emulation program such as HyperTerminal.
6 | Built in Ethernet ports (Lan1 - Lan4). On the front panel, the ports are labelled 1, 2, 3 and 4 respectively.
7 | Management connection port (Mgmt) - Ethernet connection to a remote management computer.
8 | Not used.

LEDs

Key | Description
--- | ---
9 | Power On/Off Indicator- This green light is lit when the appliance is ON. When the appliance is OFF, the light is off.
10 | HDD Operation indicator- When this green light is steady, the appliance is ON and ready for login. When it is blinking, the appliance is booting and it is not possible to login.
11 | Port Indicators- There are two lights at the bottom of each LAN port. When the port is inactive, both are off.
   - Activity Indicator: This light is solid green when connected, and blinking green when encountering traffic.
   - Speed Indicator: When this light is yellow or orange, the port speed is 1000 Mbps. When it is green, the port speed is 100 Mbps.
Managing DLP-1 2571 Using the LCD Panel

The appliance has an LCD panel that can be used to perform basic management operations. The management IP address, netmask, and default gateway of the appliance can be configured. The appliance can also be rebooted.

### Menu Options

<table>
<thead>
<tr>
<th>Menu</th>
<th>Sub-menu</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DHCP</td>
<td></td>
<td>Enable or disable IP address allocation using DHCP</td>
</tr>
<tr>
<td>Set Mgmt</td>
<td></td>
<td>Set the management interface IP address</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(cannot be edited when DHCP is enabled)</td>
</tr>
<tr>
<td>Set Netmask</td>
<td></td>
<td>Set the management interface network mask</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(cannot be edited when DHCP is enabled)</td>
</tr>
<tr>
<td>Set Default GW</td>
<td></td>
<td>Set the management interface default gateway</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(cannot be edited when DHCP is enabled)</td>
</tr>
<tr>
<td>System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reboot</td>
<td></td>
<td>Reboot the appliance</td>
</tr>
</tbody>
</table>

### LCD Panel Keys

<table>
<thead>
<tr>
<th>To</th>
<th>Press</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter the main menu</td>
<td>ENTER</td>
</tr>
<tr>
<td>Navigate the menu</td>
<td>⬆️ or ⬇️</td>
</tr>
<tr>
<td>Select a menu option</td>
<td>ENTER</td>
</tr>
<tr>
<td>Go back to previous menu</td>
<td>ESC</td>
</tr>
</tbody>
</table>

### When Entering an IP Address

<table>
<thead>
<tr>
<th>To</th>
<th>Press</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move to the next digit</td>
<td>ENTER</td>
</tr>
<tr>
<td>To</td>
<td>Press</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Move back to the previous digit</td>
<td>ESC</td>
</tr>
<tr>
<td>Approve the change</td>
<td>enter when the cursor is located on the last digit</td>
</tr>
<tr>
<td>Cancel the IP change</td>
<td>ESC when the cursor is located on the first digit</td>
</tr>
<tr>
<td>Change current digit</td>
<td>▲  or ▼</td>
</tr>
</tbody>
</table>
Chapter 4

DLP-1 9571 Hardware

This chapter explains how to install and remove hardware components on the DLP-1 9571 appliance.

In This Chapter

Front Panel Components  29
Rear Panel Components  32
Customer Replaceable Parts  34
Front Panel Components

This section describes the features and components located on the appliance front panel.

DLP-1 9571 Front Panel

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LCD display screen. Described in the next section.</td>
</tr>
<tr>
<td>2</td>
<td>Management connection port - Ethernet connection to a remote management workstation</td>
</tr>
<tr>
<td>3</td>
<td>Not used</td>
</tr>
<tr>
<td>4</td>
<td>Console port - for a serial connection to the appliance using a terminal emulation program such as HyperTerminal</td>
</tr>
<tr>
<td>5</td>
<td>Keypad for the LCD display. Described in the next section.</td>
</tr>
<tr>
<td>6</td>
<td>Power indicator LED</td>
</tr>
<tr>
<td>7</td>
<td>USB ports</td>
</tr>
<tr>
<td>8</td>
<td>Slot for optional Lights Out Management (LOM) card [<a href="http://supportcontent.checkpoint.com/documentation_download?ID=10876">http://supportcontent.checkpoint.com/documentation_download?ID=10876</a>].</td>
</tr>
<tr>
<td>9</td>
<td>Expansion line card (2 or 4 ports)</td>
</tr>
<tr>
<td>10</td>
<td>Built in Ethernet ports (Lan1 - Lan8)</td>
</tr>
<tr>
<td>11</td>
<td>Optional 1000BaseT bypass line card with ports Exp2-1, Exp2-2, Exp2-3, Exp2-4. On the front panel, the ports are labelled 1, 2, 3 and 4 respectively.</td>
</tr>
<tr>
<td>12</td>
<td>Bypass Indicators - One LED for the Inline Pair of ports Exp2-1/Exp2-2 and another LED for Inline Pair of ports Exp2-3/Exp2-4. When the light is</td>
</tr>
<tr>
<td></td>
<td>- Red: The ports are operating in bypass mode, such as when the appliance is turned off.</td>
</tr>
<tr>
<td></td>
<td>- Green: The ports are in normal mode.</td>
</tr>
<tr>
<td></td>
<td>- OFF: The port is not connected.</td>
</tr>
<tr>
<td>13</td>
<td>Hard disk drives</td>
</tr>
</tbody>
</table>
Managing DLP-1 9571 Using the LCD Panel

The appliance has an LCD panel that can be used to perform basic management operations. The management IP address, netmask, and default gateway of the appliance can be configured. The appliance can also be rebooted.

Menu Options

<table>
<thead>
<tr>
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<th>Purpose</th>
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<tr>
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<tr>
<td></td>
<td>DHCP</td>
<td>Enable or disable IP address allocation using DHCP</td>
</tr>
<tr>
<td></td>
<td>Set Mgmt</td>
<td>Set the management interface IP address</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(cannot be edited when DHCP is enabled)</td>
</tr>
<tr>
<td></td>
<td>Set Netmask</td>
<td>Set the management interface network mask</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(cannot be edited when DHCP is enabled)</td>
</tr>
<tr>
<td></td>
<td>Set Default GW</td>
<td>Set the management interface default gateway</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(cannot be edited when DHCP is enabled)</td>
</tr>
<tr>
<td>System</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reboot</td>
<td>Reboot the appliance</td>
</tr>
</tbody>
</table>

LCD Panel Keys

<table>
<thead>
<tr>
<th>To</th>
<th>Press</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter the main menu</td>
<td>ENTER</td>
</tr>
<tr>
<td>Navigate the menu</td>
<td>up/down</td>
</tr>
<tr>
<td>Select a menu option</td>
<td>ENTER</td>
</tr>
<tr>
<td>Go back to previous menu</td>
<td>ESC</td>
</tr>
</tbody>
</table>

When Entering an IP Address

<table>
<thead>
<tr>
<th>To</th>
<th>Press</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move to the next digit</td>
<td>ENTER</td>
</tr>
<tr>
<td>Move back to the previous digit</td>
<td>ESC</td>
</tr>
<tr>
<td>Approve the change</td>
<td>ENTER when the cursor is located on the last digit</td>
</tr>
<tr>
<td>Cancel the IP change</td>
<td>ESC when the cursor is located on the first digit</td>
</tr>
</tbody>
</table>
Expansion Line Cards

The DLP-1 9571 appliance contains an optional expansion slot that accommodates cold-swappable network line cards.

According to type, each expansion line card contains two or four ports. The following types of expansion line card are currently available:

**Compatible line cards**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPPWR-ACC-4-1C</td>
<td>1000BaseT line card</td>
</tr>
<tr>
<td>CPPWR-ACC-4-1SRF</td>
<td>1GbE Multi-mode SR fiber optic line card</td>
</tr>
<tr>
<td>CPPWR-ACC-4-1LRF</td>
<td>1GbE Single-mode LR fiber optic line card</td>
</tr>
<tr>
<td>CPPWR-ACC-2-10SRF</td>
<td>10GbE Multi-mode SR fiber optic line card</td>
</tr>
<tr>
<td>CPPWR-ACC-2-10LRF</td>
<td>10GbE Single-mode LR fiber optic line card</td>
</tr>
<tr>
<td>CPPWR-ACC-4-1C-BP</td>
<td>1000BaseT bypass line card</td>
</tr>
</tbody>
</table>
Hard Disk Drives

DLP-1 9571 contains two hot-swappable redundant hard disk drives (RAID1).

Figure 4-2  Hard Disk Drives

RAID1 Mirroring

Implemented by a dedicated RAID controller, DLP-1 9571 model performs RAID1 mirroring across two hard disk drives. Mirror rebuild is automatic.

Rear Panel Components

This section describes components located on the rear panel of the appliance.

Main Power Switch

The main power switch controls power to the entire unit. This appliance has two main power switches for your convenience.
Redundant Power Supply Units

Located at the right rear of the appliance, two hot-swappable power supply units provide built-in power redundancy. Each power supply connects to an electric outlet.

Figure 4-3  Redundant Power Supply Units

When a power supply fails or is not connected to the outlet, an alarm sounds continuously.

Cooling Fans

The DLP-1 appliance contains three replaceable cooling fans. Each cooling fan operates independently of the others, providing redundancy in the event of failure.
Customer Replaceable Parts

To ensure maximum availability and ease of maintenance, the DLP-1 appliance contains the following customer replaceable parts:

<table>
<thead>
<tr>
<th>DLP-1 9571</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supplies</td>
<td>2</td>
</tr>
<tr>
<td>Cooling fans</td>
<td>3</td>
</tr>
<tr>
<td>Expansion line cards</td>
<td>1 with additional slot</td>
</tr>
<tr>
<td>Hard disk drives</td>
<td>2 (RAID-1) Hot swappable</td>
</tr>
</tbody>
</table>

Unless directed to do so by Check Point technical support, customers are prohibited by warranty and support agreements from replacing any parts. Customers are prohibited from opening the DLP-1 case under any circumstances.
Power Supply

This section presents the procedures for removing and installing a power supply unit. DLP-1 appliance contains two redundant power supplies.

Figure 4-4 Redundant Power Supply Units

Removing the Power Supply

To remove a power supply unit:

1. If the alarm sounds, press the red alarm button to the right of the power supply. The alarm stops.
2. Remove the power cord.
3. Loosen the retaining screw located above the power socket.
4. Pull the extraction handle to remove the power supply unit.

**Note** - Use only the extraction handle to remove the power supply unit. To prevent damaging the power supply, do not pull on the retaining screw, power cord clip or any other part of the unit.

Installing the Power Supply

To install a replacement power supply:

1. Insert the power supply into its slot and push firmly until it clicks into place.
2. Tighten the retaining screws.
3. Insert the power cord. Verify that the green LED is illuminated.
Cooling Fan

This section presents the procedures for removing and installing a fan unit. The DLP-1 appliance contains three cooling fans. It is not necessary to power off the appliance before adding or removing a fan unit.

Figure 4-5  Cooling Fans

Removing Fan Units

To remove a fan unit:
1. Loosen the four retaining screws in the corners of the fan assembly.
2. Gently pull the fan unit out of the appliance.

Installing Fan Units

To install a fan unit:
1. Insert the fan unit into the appliance. Push firmly until it clicks into place.
2. Tighten the four retaining screws in the corners of the fan assembly.

Expansion Line Card

This section presents the procedures for removing and installing an expansion line card unit. The built-in Ethernet ports (Lan1 - Lan8) are not customer replaceable.

DLP-1 9571 has one slot for an expansion line card.

Important - Make certain that you are electromagnetically grounded when performing the following procedures. Static electricity can damage the appliance.
Removing Expansion Line Cards
To remove an expansion line card:
1. Power off the appliance and remove the power cords from the power supply units.
2. Loosen the retaining screws on either side of the expansion line card.
3. Holding the screws, pull the expansion line card out of the slot.

Installing Expansion Line Cards
To install an expansion line card:
1. Power off the appliance and remove the power cords from the power supply units.
2. Insert the expansion line card into the slot.
3. Push until the card clicks into place.
4. Tighten the retaining crews on either side of the expansion line card.

Hard Disk Drive
This section covers installing or removing a hard disk drive.
DLP-1 9571 contains two hot-swappable redundant hard disk drives (RAID1).

**Figure 4-7** Hard Disk Drives

Removing a Hard Disk Drive

To remove a hard disk drive:

1. Using the key supplied in the toolkit, unlock the drive.
2. Slide the release latch toward the left (see the arrow in diagram). The extraction handle pops out.
3. Using the extraction handle, remove the drive from the slot.

Installing a Hard disk Drive

To install a hard disk drive:

1. Slide the replacement hard disk drive into the slot.
2. Push the extraction handle until it closes and the drive clicks into place.
3. Using the key supplied in the toolkit, lock the new drive in place.
Chapter 5

Restoring Factory Defaults

DLP-1 is preinstalled with the R71 default software image. When you turn on the appliance for the first time, the appliance loads with the R71 default image. As part of the troubleshooting process, it may be necessary to restore the DLP-1 appliance to its factory default settings.

You can restore your DLP-1 appliance to the factory default image using one of the following methods:

- Using the WebUI
- Through the console boot menu
- Using the LCD panel

**Important** - Restoring factory defaults deletes all information on the appliance.

In This Chapter

- Restoring Using the WebUI 39
- Restoring Using the Console Boot Menu 40
- Restoring Using the LCD Panel 40

Restoring Using the WebUI

To restore the appliance to its default factory configuration using the WebUI:

1. In the WebUI, click **Appliance > Image Management**.

   The Image Management window opens:

   ![Image Management Window](image_url)

2. Select the image you wish to revert to.
3. Click **Revert**.
Restoring Using the Console Boot Menu

To restore the DLP-1 appliance to its default factory configuration using the console boot menu:

1. Connect the supplied DB9 serial cable to the console port on the front of the appliance.
2. Connect to DLP-1 using a terminal emulation program such as Microsoft HyperTerminal, the program used here.
3. In the HyperTerminal Connect To window, select a port from the Connect using list. Define the port settings: 9600 BPS, 8 bits, no parity, 1 stop bit.
4. From the Flow control list, select Hardware.
5. Click, Call > Call to connect to the appliance.
6. Switch on DLP-1. The appliance begins the boot process and status messages appear in HyperTerminal.
7. During the DLP-1 boot process, text similar to that shown below appears:

Figure 5-8 Activating the Boot menu in HyperTerminal

8. At this point, you have approximately four seconds to hit any key to activate the Boot menu.
9. The Boot menu opens. Scroll to the desired Reset to factory defaults image and press Enter.

Restoring Using the LCD Panel

To restore the DLP-1 appliance to its default factory configuration using the LCD Panel keys:

1. Reboot or power on the appliance.
2. When the countdown begins, press any of the arrow keys.

   Starting in 5 seconds

   The Boot menu appears.

3. Using the arrow buttons, scroll to the default factory image.

4. Press ⏏️

   Select: ⬇️至上
   Reset to FCD

5. Confirm the reset by pressing ⏏️.

   Restore?
   Press ⬆️ to start

   Pressing any other button causes the Action Canceled message to display:

   Action Canceled
   Press any key

   At this point, pressing any key returns you to the boot menu.
6. Once you have confirmed the reset, wait for the appliance to restore the factory image. While the appliance is restored to the default image, a Loading message displays continuously.

![Loading Image]

When the appliance has been restored to its default factory configuration, the appliance reboots and the initializing message appears.
Chapter 6

Registration and Support

In This Chapter

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Support 43
Where To From Here? 43

Registration

DLP-1 requires a specific Check Point license. Obtain a license and register at the Check Point Appliance Registration site (http://register.checkpoint.com/cpapp).

Support

For additional technical information about Check Point products, consult the Check Point Support Center (http://supportcenter.checkpoint.com).

Where To From Here?

You have now learned the basics that you need to get started. The next step is to obtain more advanced knowledge of your Check Point software.

See the DLP-1 R71 Administration Guide (http://supportcontent.checkpoint.com/documentation_download?ID=10323), also available on the CD.

Other Check Point documentation is available in PDF format on the Check Point CD supplied with the appliance as well as on the Technical Support site (http://supportcenter.checkpoint.com).

Be sure to also use the Online Help when you are working with the Check Point SmartConsole clients.