Before Configuring a Red Hat Cluster

This chapter describes tasks to perform and considerations to make before installing and configuring a Red Hat Cluster, and consists of the following sections:

1. Enabling IP Ports

Before deploying a Red Hat Cluster, you must enable certain IP ports on the cluster nodes and on computers that run **luci** (the Conga user interface server). The following sections specify the IP ports to be enabled and provide examples of `iptables` rules for enabling the ports:

1.1. Enabling IP Ports on Cluster Nodes

To allow Red Hat Cluster nodes to communicate with each other, you must enable the IP ports assigned to certain Red Hat Cluster components. *Table 2.1, "Enabled IP Ports on Red Hat Cluster Nodes"* lists the IP port numbers, their respective protocols, the components to which the port numbers are assigned, and references to `iptables` rule examples. At each cluster node, enable IP ports according to *Table 2.1, "Enabled IP Ports on Red Hat Cluster Nodes"*. (All examples are in *Section 1.3, "Examples of `iptables` Rules"*.)

IP Port Number	Protocol	Component	Reference to Example of `iptables` Rules
6809	UDP	`cman` (Cluster Manager)	*Example 2.1, "Port 6809: cman"*
11111	TCP	`ricci` (part of Conga remote agent)	*Example 2.3, "Port 11111: ricci (Cluster Node and Computer Running **luci**)"*
14567	TCP	`gnbd` (Global Network Block Device)	*Example 2.4, "Port 14567: gnbd"*

IP Port Number	Protocol	Component	Reference to Example of `iptables` Rules
16851	TCP	`modclusterd` (part of Conga remote agent)	*Example 2.5, "Port 16851: modclusterd"*
21064	TCP	`dlm` (Distributed Lock Manager)	*Example 2.6, "Port 21064: dlm"*
41966, 41967, 41968, 41969	TCP	`rgmanager` (high-availability service management)	*Example 2.7, "Ports 41966, 41967, 41968, 41969: rgmanager"*
50006, 50008, 50009	TCP	`ccsd` (Cluster Configuration System daemon)	*Example 2.8, "Ports 50006, 50008, 50009: ccsd (TCP)"*
50007	UDP	`ccsd` (Cluster Configuration System daemon)	*Example 2.9, "Port 50007: ccsd (UDP)"*

Table 2.1. Enabled IP Ports on Red Hat Cluster Nodes

1.2. Enabling IP Ports on Computers That Run luci

To allow client computers to communicate with a computer that runs **luci** (the **Conga** user interface server), and to allow a computer that runs **luci** to communicate with **ricci** in the cluster nodes, you must enable the IP ports assigned to **luci** and **ricci**. *Table 2.2, "Enabled IP Ports on a Computer That Runs **luci**"* lists the IP port numbers, their respective protocols, the components to which the port numbers are assigned, and references to `iptables` rule examples. At each computer that runs **luci**, enable IP ports according to *Table 2.1, "Enabled IP Ports on Red Hat Cluster Nodes"*. (All examples are in *Section 1.3, "Examples of `iptables` Rules"*.)

Note

If a cluster node is running **luci**, port 11111 should already have been enabled.

IP Port Number	Protocol	Component	Reference to Example of `iptables` Rules
8084	TCP	**luci** (Conga user interface server)	*Example 2.2, "Port 8084: luci (Cluster Node or Computer Running **luci**)"*
11111	TCP	`ricci` (Conga remote agent)	*Example 2.3, "Port 11111: ricci (Cluster Node and Computer Running **luci**)"*

Table 2.2. Enabled IP Ports on a Computer That Runs luci

1.3. Examples of iptables Rules

This section provides iptables rule examples for enabling IP ports on Red Hat Cluster nodes and computers that run **luci**. The examples enable IP ports for a computer having an IP address of 10.10.10.200, using a subnet mask of 10.10.10.0/24.

Note

Examples are for cluster nodes unless otherwise noted in the example titles.

```
-A INPUT -i 10.10.10.200 -m state --state NEW -p udp -s 10.10.10.0/24 -d
10.10.10.0/24 --dport 6809 -j ACCEPT
```

Example 2.1. Port 6809: cman

```
-A INPUT -i 10.10.10.200 -m state --state NEW -m multiport -p tcp -s
10.10.10.0/24 -d 10.10.10.0/24 --dports 8084 -j ACCEPT
```

Example 2.2. Port 8084: luci (Cluster Node or Computer Running luci)

```
-A INPUT -i 10.10.10.200 -m state --state NEW -m multiport -p tcp -s
10.10.10.0/24 -d 10.10.10.0/24 --dports 11111 -j ACCEPT
```

Example 2.3. Port 11111: ricci (Cluster Node and Computer Running luci)

```
-A INPUT -i 10.10.10.200 -m state --state NEW -m multiport -p tcp -s
10.10.10.0/24 -d 10.10.10.0/24 --dports 14567 -j ACCEPT
```

Example 2.4. Port 14567: gnbd

```
-A INPUT -i 10.10.10.200 -m state --state NEW -m multiport -p tcp -s
10.10.10.0/24 -d 10.10.10.0/24 --dports 16851 -j ACCEPT
```

Example 2.5. Port 16851: modclusterd

```
-A INPUT -i 10.10.10.200 -m state --state NEW -m multiport -p tcp -s
10.10.10.0/24 -d 10.10.10.0/24 --dports 21064 -j ACCEPT
```

Example 2.6. Port 21064: dlm

```
-A INPUT -i 10.10.10.200 -m state --state NEW -m multiport -p tcp -s
10.10.10.0/24 -d 10.10.10.0/24 --dports 41966,41967,41968,41969 -j ACCEPT
```

Example 2.7. Ports 41966, 41967, 41968, 41969: rgmanager

```
-A INPUT -i 10.10.10.200 -m state --state NEW -m multiport -p tcp -s
10.10.10.0/24 -d 10.10.10.0/24 --dports 50006,50008,50009 -j ACCEPT
```

Example 2.8. Ports 50006, 50008, 50009: ccsd (TCP)

```
-A INPUT -i 10.10.10.200 -m state --state NEW -m multiport -p udp -s
10.10.10.0/24 -d 10.10.10.0/24 --dports 50007 -j ACCEPT
```

Example 2.9. Port 50007: ccsd (UDP)

2. Configuring ACPI For Use with Integrated Fence Devices

If your cluster uses integrated fence devices (*Table 2.3, "Integrated Fence Devices Supported in a Red Hat Cluster"*), you must configure ACPI (Advanced Configuration and Power Interface) to ensure immediate and complete fencing.