FUJITSU

FUJITSU Server PRIMEQUEST2000 Series

FUJITSU Software
ServerView Mission Critical Option

User Manual

Version 1.2

Contents

1 ServerView Mission Critical Option (SVmco)

This section provide an overview of the SVmco function.

1.1. Function of Svmco

ServerView Mission Critical Option (SVmco) is application on OS of each partition.
And, it is software for PRIMECLUSTER integration.

 SVmco's main functions are as follows:

- PRIMECLUSTER integration
 SVmco enables the linkage with PRIMECLUSTER (clustering system).

2 Installation Steps

2.1. Configuring SVmco (Linux: Red Hat Enterprise Linux)

This section describes confirmation of the required settings for SVmco operation after operating system installation, and corresponding features about the settings.
Perform these operations with root authority.

Confirmation of the required settings for SVmco operation, and corresponding features about the settings

Required/ As needed	Setting item	Automatic setting (*1)/ Manual setting (*2)	See
Required	Confirming management LAN settings	Manual setting	2.1.1　Confirming management LAN settings
	Setting the management LAN IP address	Manual setting	2.1.2　Setting the management LAN IP address
	Checking the firewall function (opening ports)	Manual setting	2.1.3　Checking the firewall function (opening ports)
As needed	Installing a SVmco update	Not applicable	2.1.4　Installing a SVmco update
	Uninstalling SVmco (*3)	Not applicable	2.1.5　Uninstalling SVmco

*1 Automatic setting: Values are automatically set during SVmco installation. You may need to change an automatically set value. See the section listed in the table.

*2 Manual setting: Values are not automatically set during SVmco installation. Make settings as described in the section referred to in the table.

*3 The limitation when SVmco is not installed is as follows.
◆　PRIMECLUSTER linkage is disabled.

Remarks

- SVmco can be installed by the selection by using SVIM and installing OS.For details on SVIM, see the ServerView Suite ServerView Installation Manager.
- For details on how to manually install SVmco, see 3. Manual SVmco Installation and Uninstallation.
- The following table lists settings for SVmco operation. The installer automatically adds or updates these settings during SVmco installation.

Settings automatically added/changed during SVmco installation

Target	Action	Remarks
snmptrapd.conf file	Add setting	
snmptrapd start option	Change	
SELinux setting	Add setting	The policy module is added. However, this policy module does not operate when SElinux sets disable.

Note
1. When IPv6 is disabled, it is necessary to delete the setting from the configuration
file of following snmptrapd. Receiving Trap of another node in the PRIMECLUSTER environment when the setting is not deleted becomes impossible.

Please delete the setting according to the following procedures.

1. /etc/snmp/snmptrapd.conf is opened, and the following "Udp6:162" is deleted.
Before :

snmpTrapdAddr udp:162,udp6:162

After :

snmpTrapdAddr udp:162

2. It is confirmed to restart snmptrapd, and to start normally.

- In case of RHEL6

```
#service snmptrapd restart
snmptrapd  stopping:                          [  OK  ]
snmptrapd  starting:                          [  OK  ]
#
```

- In case of RHEL7
  It is possible to confirm it by the following messages output to/var/log/ message.

```
Started Simple Network Management Protocol (SNMP) Trap Daemon..
```

2.1.1. Confirming management LAN settings

Make network settings for the management LAN. If necessary, also configure any duplication with bonding or PRIMECLUSTER GLS, for example.

After completing the above network settings for the management LAN, perform the operations described in 2.1.2 Setting the management LAN IP address.

Note

In the PRIMEQUEST environment, it is necessary to specify OFF for the STP function of the switch that connects to the management LAN used for communication with the MMB.

2.1.2. Setting the management LAN IP address

Set the partition management LAN IP address in SVmco.

■ **Edit the configuration file.**
A set content depends on the communication protocol used by management LAN.

Note

● When you change IP address of management LAN :
Please set this chapter. The PRIMECLUSTER cooperation cannot be used when not setting it.

➢ **In case of IPv4**

1. Example of changing the management LAN IP address

```
# vi /etc/fujitsu/SVmco/usr/ipsetup.conf


Change the following line.

[NETWORK]

ManagementIP=<management LAN IP address>

```

```
Unnecessary to change of the following lines.
IPVersion=0
```

Syntax

```
[NETWORK]
ManagementIP=192.168.0.1

IPVersion=0
```

2. Restart SVmco to reflect the new the management LAN IP address.

Note

This procedure is unnecessary in case of a manual installation.

Syntax

```
/sbin/service  y30SVmco stop
/sbin/service  y30SVmco start
```

➤ **In case of IPv6**

1. Example of changing the management LAN IP address

```
#vi /etc/fujitsu/Svmco/usr/ipsetup.conf


[NETWORK]

ManagementIP=


And necessary to change of the following lines.

IPVersion=0
```

· After changed

```
IPVersion=1
```

2. Edit the "/etc/fujitsu/SVmco/usr/ipsetup_v6.conf" file

```
# vi /etc/fujitsu/SVmco/usr/ipsetup_v6.conf
The following lines are changed.
[NETWORK]
ManagementIP=< management LAN IP address>
```

Syntax

```
[NETWORK]
ManagementIP=2001:2345::1480:9350:100
```

3. Restart SVmco to reflect the new the management LAN IP address.

Note

This procedure is unnecessary in case of a manual installation.

Syntax

```
/sbin/service  y30SVmco stop
/sbin/service  y30SVmco start
```

For details on how to specify any duplication of the management LAN with PRIMECLUSTER GLS, see the applicable PRIMECLUSTER manuals.

2.1.3. Checking the firewall function (opening ports)

Open any partition port that is required for operating SVmco but is not open because of firewall settings. Configure the management LAN interfaces.

*1 : Only a chain for the management LAN (MMLAN) is created by execution of the shell script for settings (setmlanfw.sh). Add the jump setting for the management LAN to INPUT or OUTPUT in iptables(iptables6). For details, see Using the shell script (setmlanfw.sh) for these settings.

■ Management LAN interfaces

Open the following ports for use with the management LAN interfaces.

Perform the operations described in 2.1.1 Confirming management LAN setting before making the settings. Open the ports by executing the shell script (setmlanfw.sh) for these settings. Alternatively, use the iptables command or another command to make the settings manually.

Ports to open for the management LAN interfaces

Port	Port number	Description	Remarks
snmptrap port	udp/snmptrap or 162	Open the port only for linkage with a cluster (e.g., PCL linkage).	For the IP addresses, specify the physical IP addresses of the MMBs (MMB#0/MMB#1) belonging to all cluster nodes.
rmcp+ port	udp/7000 to 7100		

● Using the shell script (setmlanfw.sh) for these settings
1. Confirm the completion of the operations described in 2.1.2 Setting the management LAN IP address.

2. Prepare a configuration file.
   The following is a sample configuration file.

   /opt/fujitsu/SVmco/sh/sample_conf_setmlanfw.txt

Remarks

A SVmco update will overwrite the above sample file. Save a copy of the configuration file to retain the original values.

In the configuration file, write [PCL] only on the first line. Then, on separate lines, write the physical IP addresses of the MMBs (MMB#0/MMB#1) belonging to all the cluster nodes defined for PRIMECLUSTER, or write the network IP addresses including the physical IP addresses of the aforementioned MMBs.

◆ The setting is different according to the communication protocol used by management LAN.

➢ **In case of IPv4**

```
Sample configuration file :

[PCL]
192.168.0.0/24
192.168.1.5
```

1. Check the status of firewall
   Execute the following command for checking the status of firewall.

   ```
   #/sbin/service iptables status
   ```

   Please start iptables by the following commands when the message that iptables such as

   "Firewall is not running" is displayed.

   The necessary setting cannot be done when not starting.

   ```
   #/sbin/service iptables start
   ```

2. Execute the shell script.

   In the first variable, specify the path to the configuration file prepared in step 2.

   A confirmation message appears for the contents of the configuration file.

Enter "Y".

Execution example: (The prepared configuration file "fwconf.txt" is assumed to be in the current directory.)

/opt/fujitsu/SVmco/sh/setmlanfw.sh./fwconf.txt

Management LAN IP address:

192.168.0.1

Source IPs for PRIMECLUSTER Service:

192.168.0.0/24

192.168.1.5.

Press "Y" to confirm above settings, "N" to cancel all settings

> Y

```
##################################################################
# Created the MMLAN chain on your firewall(iptables)           #
# For more detail on how to set firewall, refer to the Installation Manual.#
##################################################################
The setting was completed
```

3.   Execute iptables -L -n. Then, confirm that the "MMLAN" chain exists.

```
Execution example :
# iptables -L -n
Chain INPUT (policy DROP)
target  prot opt source      destination
MMLAN   all -- 0.0.0.0/0      0.0.0.0/0

Chain FORWARD (policy DROP)
target  prot opt source      destination

Chain OUTPUT (policy DROP)
target  prot opt source      destination
MMLAN   all -- 0.0.0.0/0      0.0.0.0/0

Chain MMLAN (2 references)
target  prot opt source      destination
ACCEPT  udp -- 192.168.0.0/24 192.168.0.1  udp dpts:7000:7100
ACCEPT  udp -- 192.168.0.1   192.168.0.0/24 udp spts:7000:7100
ACCEPT  udp -- 192.168.0.0/24 192.168.0.1  udp dpt:162
```

```
ACCEPT  udp  -- 192.168.0.1   192.168.0.0/24 udp spt:162
ACCEPT  udp  -- 192.168.1.5   192.168.0.1  udp dpts:7000:7100
ACCEPT  udp  -- 192.168.0.1   192.168.1.5   udp spts:7000:7100
ACCEPT  udp  -- 192.168.1.5   192.168.0.1  udp dpt:162
ACCEPT  udp  -- 192.168.0.1   192.168.1.5   udp spt:162
```

Note

After changing the IP address of the management LAN interface, delete the settings once, and set their values again. For details on how to delete the settings, see (8) Configuration deletion procedure in

4.   Add the "MMLAN" setting chain to INPUT and OUTPUT chains. At this time, take care to prevent interruptions by an existing REJECT setting in an INPUT or OUTPUT chain or by a user definition chain.

```
Example: REJECT setting in INPUT and FORWARD
# iptables –L
Chain INPUT (policy ACCEPT)
target   prot opt source        destination
ACCEPT    all  -- 0.0.0.0/0       0.0.0.0/0 state RELATED,ESTABLISHED
ACCEPT    icmp -- 0.0.0.0/0        0.0.0.0/0
ACCEPT    all  -- 0.0.0.0/0       0.0.0.0/0
ACCEPT    tcp  -- 0.0.0.0/0        0.0.0.0/0 state NEW tcp dpt:22
REJECT    all  -- 0.0.0.0/0        0.0.0.0/0  reject-with icmp-host-prohibited

Chain FORWARD (policy ACCEPT)
target  prot opt source      destination
REJECT    all  -- 0.0.0.0/0        0.0.0.0/0  reject-with icmp-host-prohibited

Chain OUTPUT (policy ACCEPT)
target   prot opt source       destination

Chain MMLAN (2 references)
target   prot opt source       destination
ACCEPT    udp -- 192.168.0.0/24      192.168.0.1    udp dpts:7000:7100
ACCEPT    udp -- 192.168.0.1       192.168.0.0/24 udp spts:7000:7100
ACCEPT    udp -- 192.168.0.0/24      192.168.0.1    udp dpt:162
ACCEPT    udp -- 192.168.0.1       192.168.0.0/24 udp spt:162
ACCEPT    udp -- 192.168.1.5       192.168.0.1    udp dpts:7000:7100
ACCEPT    udp -- 192.168.0.1       192.168.1.5    udp spts:7000:7100
ACCEPT    udp -- 192.168.1.5       192.168.0.1    udp dpt:162
ACCEPT    udp -- 192.168.0.1       192.168.1.5    udp spt:162
```

5. Add "MMLAN" to the fifth INPUT chain (before the REJECT setting) and to the OUTPUT chain. (For details on the iptables option, see the man manual.)

```
# /sbin/iptables –I INPUT 5 –j MMLAN
# /sbin/iptables –A OUTPUT –j MMLAN
```

6. Execute the iptables -L command, and confirm that the MMLAN chains added to the INPUT and OUTPUT chains are not interrupted by the previous REJECT, DROP, or other settings

```
Example of settings :
# iptables -L
Chain INPUT (policy ACCEPT)
target  prot opt source          destination
ACCEPT   all  -- 0.0.0.0/0         0.0.0.0/0  state RELATED,ESTABLISHED
ACCEPT   icmp -- 0.0.0.0/0          0.0.0.0/0
ACCEPT   all  -- 0.0.0.0/0         0.0.0.0/0
ACCEPT   tcp  -- 0.0.0.0/0          0.0.0.0/0  state NEW tcp dpt:22
MMLAN    all  -- 0.0.0.0/0         0.0.0.0/0
REJECT   all  -- 0.0.0.0/0         0.0.0.0/0  reject-with icmp-host-prohibited

Chain FORWARD (policy ACCEPT)
target  prot opt source       destination
REJECT   all  -- 0.0.0.0/0         0.0.0.0/0  reject-with icmp-host-prohibited

Chain OUTPUT (policy ACCEPT)
target  prot opt source       destination
MMLAN    all  -- 0.0.0.0/0         0.0.0.0/0

Chain MMLAN (2 references)
target  prot opt source       destination
ACCEPT   udp -- 192.168.0.0/24     192.168.0.1  udp dpts:7000:7100
ACCEPT   udp -- 192.168.0.1      192.168.0.0/24 udp spts:7000:7100
ACCEPT   udp -- 192.168.0.0/24     192.168.0.1  udp dpt:162
ACCEPT   udp -- 192.168.0.1      192.168.0.0/24 udp spt:162
ACCEPT   udp -- 192.168.1.5      192.168.0.1  udp dpts:7000:7100
ACCEPT   udp -- 192.168.0.1      192.168.1.5   udp spts:7000:7100
ACCEPT   udp -- 192.168.1.5      192.168.0.1  udp dpt:162
ACCEPT   udp -- 192.168.0.1      192.168.1.5   udp spt:162
```

7. Save the firewall configuration

```
# /sbin/service iptables save
```

➢ **In case of IPv6**

> Sample configuration file :
>
> [PCL]
> 2001:2345::1480:9350:101
> 2001:2345::1480:9350:102

1.   Check the status of firewall

> #/sbin/service ip6tables status

Please start ip6tables by the following commands when the message that ip6tables such as "Firewall is not running" is displayed.
The necessary setting cannot be done when not starting.

> #/sbin/service ip6tables start

2.   Execute the shell script.

In the second variable, specify the path to the configuration file prepared in step 2.

Execution example: (It is necessary to prepare the configuration file "Fwconf.txt" in the current directory.)

The Management IP Address is 2001:2345::1480:9350:100 and the node is of each.
It makes it to 2001:2345::1480:9350:101 and 2001:2345::1480:9350:102.

> # /opt/fujitsu/SVmco/sh/setmlanfw.sh -v6 ./fwconf.txt

A confirmation message appears for the contents of the configuration file.
Enter "Y".

> Execution example: (The prepared configuration file "fwconf.txt" is assumed to be in the current directory.)
> Management LAN IP address:
> 2001:2345::1480:9350:100
> Source IPs for PRIMECLUSTER Service:
> 2001:2345::1480:9350:101
> 2001:2345::1480:9350:102
> Press "Y" to confirm above settings, "N" to cancel all settings
> > Y
> ##
> # Created the MMLAN chain on your firewall(ip6tables)   #

```
# For more detail on how to set firewall, refer to the Installation Manual.#
###############################################################
The setting was completed
```

3. Execute ip6tables -L -n. Then, confirm that the "MMLAN" chain exists.

```
Execution example :
# ip6tables -L -n
Chain INPUT (policy DROP)
target  prot opt source      destination
MMLAN   all -- anywhere    anywhere

Chain FORWARD (policy DROP)
target  prot opt source      destination

Chain OUTPUT (policy DROP)
target  prot opt source      destination
MMLAN   all – anywhere     anywhere


Chain MMLAN (2 references)

target  prot opt source      destination
ACCEPT          udp                2001:2345::1480:9350:101/128
2001:2345::1480:9350:100/128 udp dpts:afs3-fileserver:font-service
ACCEPT          udp                2001:2345::1480:9350:100/128
2001:2345::1480:9350:101/128 udp spts:afs3-fileserver:font-service
ACCEPT          udp                2001:2345::1480:9350:101/128
2001:2345::1480:9350:100/128 udp dpt:snmptrap
ACCEPT          udp                2001:2345::1480:9350:100/128
2001:2345::1480:9350:101/128 udp spt:snmptrap
ACCEPT          udp                2001:2345::1480:9350:102/128
2001:2345::1480:9350:100/128 udp dpts:afs3-fileserver:font-service
ACCEPT          udp                2001:2345::1480:9350:100/128
2001:2345::1480:9350:102/128 udp spts:afs3-fileserver:font-service
ACCEPT          udp                2001:2345::1480:9350:102/128
2001:2345::1480:9350:100/128 udp dpt:snmptrap
ACCEPT          udp                2001:2345::1480:9350:100/128
2001:2345::1480:9350:102/128 udp spt:snmptrap
```

Note

After changing the IP address of the management LAN interface, delete the
settings once, and set their values again. For details on how to delete the
settings, see (8) Configuration deletion procedure in 4.1.4 Firewall Setting

4. Add the "MMLAN" setting chain to INPUT and OUTPUT chains. At this time, take care to prevent interruptions by an existing REJECT setting in an INPUT or OUTPUT chain or by a user definition chain.

```
Example: REJECT setting in INPUT and FORWARD
# iptables –L

Chain INPUT (policy ACCEPT)
target    prot opt source          destination
ACCEPT       all        anywhere              anywhere              state
RELATED,ESTABLISHED
ACCEPT    ipv6-icmp  anywhere        anywhere
ACCEPT    all    anywhere         anywhere
ACCEPT    tcp    anywhere         anywhere      state NEW tcp dpt:ssh
REJECT    all    anywhere         anywhere          reject-with  icmp6-adm-
prohibited




Chain FORWARD (policy ACCEPT)
target    prot opt source          destination
REJECT    all    anywhere         anywhere          reject-with  icmp6-adm-
prohibited

Chain OUTPUT (policy ACCEPT)
target    prot opt source          destination

Chain MMLAN (2 references)
target  prot  opt source      destination
ACCEPT    udp    2001:2345::1480:9350:101/128  2001:2345::1480:9350:100/128
udp dpts:afs3-fileserver:font-service
ACCEPT    udp    2001:2345::1480:9350:100/128  2001:2345::1480:9350:101/128
udp spts:afs3-fileserver:font-service
ACCEPT    udp    2001:2345::1480:9350:101/128  2001:2345::1480:9350:100/128
udp dpt:snmptrap
ACCEPT    udp    2001:2345::1480:9350:100/128  2001:2345::1480:9350:101/128
udp spt:snmptrap
ACCEPT    udp    2001:2345::1480:9350:102/128  2001:2345::1480:9350:100/128
udp dpts:afs3-fileserver:font-service
ACCEPT    udp    2001:2345::1480:9350:100/128  2001:2345::1480:9350:102/128
udp spts:afs3-fileserver:font-service
ACCEPT    udp    2001:2345::1480:9350:102/128  2001:2345::1480:9350:100/128
udp dpt:snmptrap
```

```
ACCEPT    udp    2001:2345::1480:9350:100/128  2001:2345::1480:9350:102/128
udp spt:snmptrap
```

5.   Add "MMLAN" to the fifth INPUT chain (before the REJECT setting) and to
     the OUTPUT chain. (For details on the ip6tables option, see the man
     manual.)

```
# /sbin/ip6tables –I INPUT 5 –j MMLAN

# /sbin/ip6tables –A OUTPUT –j MMLAN
```

6.   I Execute the ip6tables -L command, and confirm that the MMLAN chains
     added to the INPUT and OUTPUT chains are not interrupted by the
     previous REJECT, DROP, or other settings.

```
Example of settings :
# ip6tables –L

Chain INPUT (policy ACCEPT)
target    prot opt source          destination
ACCEPT       all      anywhere              anywhere           state
RELATED,ESTABLISHED
ACCEPT    ipv6-icmp  anywhere        anywhere
ACCEPT    all      anywhere         anywhere
ACCEPT    tcp      anywhere         anywhere       state NEW tcp dpt:ssh
MMLAN    all      anywhere         anywhere
REJECT    all      anywhere          anywhere          reject-with icmp6-adm-
prohibited

Chain FORWARD (policy ACCEPT)
target    prot opt source          destination
REJECT    all      anywhere          anywhere          reject-with icmp6-adm-
prohibited

Chain OUTPUT (policy ACCEPT)
target    prot opt source          destination
MMLAN    all      anywhere         anywhere

Chain MMLAN (2 references)
target  prot  opt source      destination
ACCEPT              udp                     2001:2345::1480:9350:101/128
2001:2345::1480:9350:100/128 udp dpts:afs3-fileserver:font-service
```

```
ACCEPT              udp                 2001:2345::1480:9350:100/128
2001:2345::1480:9350:101/128 udp spts:afs3-fileserver:font-service
ACCEPT              udp                 2001:2345::1480:9350:101/128
2001:2345::1480:9350:100/128 udp dpt:snmptrap
ACCEPT              udp                 2001:2345::1480:9350:100/128
2001:2345::1480:9350:101/128 udp spt:snmptrap
ACCEPT              udp                 2001:2345::1480:9350:102/128
2001:2345::1480:9350:100/128 udp dpts:afs3-fileserver:font-service
ACCEPT              udp                 2001:2345::1480:9350:100/128
2001:2345::1480:9350:102/128 udp spts:afs3-fileserver:font-service
ACCEPT              udp                 2001:2345::1480:9350:102/128
2001:2345::1480:9350:100/128 udp dpt:snmptrap
ACCEPT              udp                 2001:2345::1480:9350:100/128
2001:2345::1480:9350:102/128 udp spt:snmptrap
```

7.   Save the firewall configuration.

```
# /sbin/service ip6tables save
```

2.1.4. Installing a SVmco update

This section describes how to install a SVmco update in Red Hat Enterprise Linux.

The description in this section assumes that the SVmco package file(SVmco-$VER-$REL.tar.gz) has already been uncompressed in a work directory (referred to as $WORK_DIR, in this document), and directory "SVmco" has already been made.
Perform these operations with root authority.

1.   Stop the SVmco service

/sbin/service y30SVmco stop

2.   Change the current directory to SVmco in $WORK_DIR:

cd $WORK_DIR/SVmco

3.   Enter the following command to start installation:

./INSTALL.sh

4.   Start the SVmco service

/sbin/service y30SVmco start

Notes of SVmco update
·   When updating SVmco on PRIMECLUSTER system, please stop PRIMECLUSTER according to the PRIMECLUSTER Installation and Administration Guide.
·   Because PRIMECLUSTER function stops during update or restart of SVmco temporarily, either of two kinds of PRIMECLUSTER messages might be output.

     7210 An error was detected in MMB.
     SA SA_mmbp.so to test host <nodename> failed

2.1.5. Uninstalling SVmco

This section describes how to uninstall SVmco in Red Hat Enterprise Linux.
Execute the following commands in the order shown to first stop SVmco services and then uninstall the SVmco package.

Syntax

```
/sbin/service y30SVmco stop
/bin/rpm -e SVmco
```

3 Manual SVmco Installation and Uninstallation

This appendix describes how to manually install and uninstall SVmco for a specific operating system.

If you use SVIM and SVmco was installed by the selection, you need not manually install SVmco.

3.1. Manually Installing SVmco (Linux: Red Hat Enterprise Linux)

This section describes how to manually install SVmco in Linux (Red Hat Enterprise Linux). Perform these operations with root authority.

Remarks
 The limitation when SVmco is not installed is as follows.
◆   PRIMECLUSTER linkage is disabled.

3.1.1. Installation flow

For details on how to install SVmco, see PRIMEQUEST 2000 Series Installation Manual. For details on how to configure SVmco, see 2.1 Configuring SVmco (Linux: Red Hat Enterprise Linux).

3.1.2. Checks before SVmco installation

This section describes the checks to make before SVmco installation.

・   Confirming management LAN settings

3.1.2.1. Confirming management LAN settings

For details on how to confirm management LAN settings, see 2.1.1 Confirming management LAN settings.

3.1.3. Installing SVmco

3.1.3.1. Packages required for Svmco

The following table lists the packages required for SVmco operation.
Please confirm necessary package has been installed in the partition before installing SVmco.

Packages

RHEL6 X64
gdb-x.x-x.x.x86_64
glibc-x.x-x.x.x.i686
openssl-x.x.x-x.x_x.x.i686
net-snmp-libs-x.x-x.x.i686
net-snmp-x.x-x.x.x86_64
net-snmp-utils-x.x-x.x.x86_64

RHEL7 X64
gdb-x.x-x.x.x86_64
glibc-x.x-x.x.x.i686
openssl-libs-x.x.x-x.x.i686
net-snmp-x.x.x-x.x.x86_64

3.1.3.2. Installing SVmco

Execute the following command to install the SVmco package.
The following explanation is based on the assumption that the SVmco package (SVmco-$VER-$REL.tar.gz) has been extracted in the work directory ($WORK_DIR).

Syntax

```
cd $WORK_DIR/SVmco
./INSTALL.sh
```

3.1.4. Automatic configuration during SVmco installation

The following table lists settings for SVmco operation. The installer automatically adds or updates these settings during SVmco installation.

Settings automatically added/changed during SVmco installation

Target	Action	Remarks
snmptrapd.conf file	Add setting	
snmptrapd start option	Change	
SELinux setting	Add setting	The policy module is added. However, this policy module does not operate when SElinux sets disable.

3.1.5. Settings after SVmco installation

This section describes the settings after SVmco installation.

- Setting the management LAN IP address
- Checking the firewall function (opening ports)
- Reboot partition

3.1.5.1. Setting the management LAN IP address

For details on how to confirm Setting the management LAN IP address, see .

3.1.5.2. Checking the firewall function (opening ports)

For details on how to confirm Checking the firewall function (opening ports), see 2.1.3 Checking the firewall function (opening ports).

3.1.5.3. Reboot partition

Please reboot partition of PRIMEQUEST after installing SVmco.

Syntax

```
/sbin/reboot
```

3.1.6.   Installing a SVmco update

For details on how to install a SVmco update, see 2.1.4 Installing a SVmco update.

3.1.7.   Uninstalling SVmco

For details on how to uninstall SVmco, see 2.1.5 Uninstalling SVmco.

4 SVmco CLI (Command Line Interface) Operations

This chapter describes the commands for operating SVmco from the CLI (command line interface).

To use the CLI, first log in to the operating system.

4.1. CLI of SVmco

4.1.1. List of CLI command

The following table lists the CLI commands for SVmco.

List of commands

No	Command name	Privileges	Remarks
1	SVmco start/stop command	root authority	Start and stop of SVmco service
2	SVmco investigation data collection command	root authority	For collecting SVmco data for investigation
3	Firewall setting command for management LAN interface	root authority	For supporting firewall settings for management LAN interface to provide PRIMECLUSTER linkage

4.1.2. SVmco Start/Stop Command (y30SVmco)

The y30SVmco command starts or stops SVmco.

Remarks

- The user must have root privileges to execute this command.

- SVmco is a daemon program. It starts automatically when the system boots.

(1) Syntax

```
/sbin/service y30SVmco {start | stop | status}
```

(2) Options

start | stop | status

- start ：Starts SVmco.

- stop ：Stops SVmco.

- status ：Checks the SVmco operating status.

(3) Usage example

a. Example of starting SVmco

```
# /sbin/service y30SVmco start
```

b. Example of stopping SVmco

```
# /sbin/service y30SVmco stop
```

c. Example of checking the SVmco operating status

```
# /sbin/service y30SVmco status
```

- In case of RHEL6

The output message is different according to the version of Red Hat Linux.

Option	Status of SVmco(y30SVmco)	message	Meaning	Action
start	shutdown	Starting SVmco services: OK]	Success to start y30SVmco.	-
		Starting SVmco services: [NG]	Failed to start y30SVmco.	Please check the SVmco setting.
	running	SVmco is already running	y30SVmco already running.	-
stop	shutdown	Shutting down SVmco services: [OK]	y30SVmco already stopped	-
	running	Shutting down SVmco services: [OK]	Success to stop y30SVmco.	-
		Shutting down SVmco services: exit=%1 [NG]	Failed to start y30SVmco. %1:error code	Please check the SVmco setting.
status	shutdown	SVmco is stopped (%1)	SVmco is stopped %1: return code	-
	running	SVMCO is running	y30SVmco already running.	-

- RHEL7

The following messages are output to/var/log/messages instead of the message of start completion/stop not being output to the console for RHEL7

Optinos	Status of SVmco(y10SVmco)	Output message	Meaning	Acrtion
start	shutdown	y30SVmco: Starting SVMCO services: y30SVmco: [OK]	Success to start y30SVmco.	-
		y30SVmco: Starting SVMCO services: y30SVmco: exit=%1[NG]	Failed to start y30SVmco %1 : error code (Sometimes output error message.)	Please check the SVmco setting.
	running	ex) Started Activation/Deactivation script of the Server View Mission Critical Option."(*1)	Success to start y30SVmco.	-
stop	shoutdown	ex) Stopped Activation/Deactivation script of the Server View Mission Critical Option. (*1)	y30SVmco has already stopped	-
	running	y10SVmco: Shutting down ipmi driver services: [OK]	Success to stop y30SVmco.	-
		y30SVmco:Shutting down SVmco services: y30SVmco:exit=xxx	Failed to stop y30SVmco.	Please check the SVmco setting.
status	shutdown	ex) "Active: inactive (dead)"is included in the output message.(*1)	y30SVmco is stopped.	-
	running	ex) "Active: active (exited)" is included in the output message.(*1)	y30SVmco already running.	-

*1: It is different depending on OS.

Remarks

(xxxx) is detailed information.

(4) End status

0 : Normal end

>0 : Abnormal end

(5) Notes

The following message may appear when you start SVmco with the y30SVmco command. The command will be executed normally even if this message appears.

/bin/mknod: `/dev/watchdog': The file exists.

4.1.3. Command for Collecting SVmco Data for Investigation (getosvmco)

The getosvmco command batch-writes data for investigation, such as the following SVmco failure data, to a single compressed file.

- Installation status of application packages

- Files and modules

- Configuration files

- Internal logs

- Trace files

Remarks

The user must have root privileges to execute this command.

(1) Syntax

For output_filename, specify the full path of the destination file to which to write the compressed data for investigation.

/opt/fujitsu/SVmco/sh/getosvmco {output_filename}

(2) Options

None

(3) Usage example

To write data for investigateion to the /tmp/dump/mco_dump file.

/opt/fujitsu/SVmco/sh/getosvmco /tmp/dump/mco_dump

(4) End status

0 : Normal end

>0 : Abnormal end

4.1.4. Firewall Setting Command for the Management LAN Interface (setmlanfw.sh)

The setmlanfw.sh command is a tool that supports the opening of the necessary ports when the system has a firewall configured for the management LAN interface and the system provides PRIMECLUSTER linkage through the management LAN network.

This command opens the following ports for the specified IP addresses.

- snmptrap port: udp/162

- rmcp+ port: udp/7000 to 7100

Note

If you need to change the firewall configuration, for instance, for changing the IP address of the management LAN interface, delete the firewall configuration according to the deletion procedure and then create the configuration procedure again.

Remarks

- The user must have root privileges to execute this command.

- Use the following procedure to execute this command.

(1) Syntax

For config_file, specify the file that contains the IP addresses of the ports to open.

/opt/fujitsu/SVmco/sh/setmlanfw.sh {config_file}

(2) Options

- v6: For firewall of IPv6

Note:

Unnecessary to use IPv4.

(3) Usage example

For config_file, specify /tmp/config.txt, which contains the IP addresses of the ports to open.

/opt/fujitsu/SVmco/shsetmlanfw.sh /tmp/config.txt

(4) Output messages

The following messages appear for this CLI command.

Too few argument
Too more argument
Cannot read the file : %s
No IP setting or illegal IP format in /etc/fujitsu/SVmco/usr/ipsetup.conf
No IP setting in %s
Already set iptables
The setting was completed

Remarks

In addition to the above messages, the CLI displays messages to confirm the settings.

(5) Message Details

Details of the message displayed with this CLI is as follows.

Too few argument

Meaning:

The number of options is invalid.

Corrective action:

The configuration file must be specified to execute the command. Specify the configuration file. Then, re-execute the command.

Too more argument

Meaning:

The number of options is invalid.

Corrective action:

The configuration file must be specified to execute the command. Specify the configuration file. Then, re-execute the command.

Cannot read the file : %s

Meaning:

A file required for execution could not be found.

Corrective action:

The file indicated in the message could not be found. Confirm that the file exists. Then, reexecute the command.

No IP setting or illegal IP format in /etc/fujitsu/SVmco/usr/ipsetup.conf (or ipsetup_v6.conf)

Meaning:

The IP address of the management LAN is not set in the SVmco operation file /etc/fujitsu/SVmco/usr/ipsetup.conf(ipsetup_v6.conf). Alternatively, the format of the IP address is incorrect.

Corrective action:

Referring to 2.1.2 Setting the management LAN IP address , set the IP address of the management LAN. Reexecute the command.

No IP setting in %s

Meaning:

The setting could not be found in the file indicated in the message.

Corrective action:
- If %s is /etc/fujitsu/SVmco/usr/ipsetup.conf(or ipsetup_v6.conf):

Referring to 2.1.2 Setting the management LAN IP address, set the IP address of the management LAN. Reexecute the command.
- If %s is other than the above:

Set the IP address in the file indicated in the message. Reexecute the command.

Already set iptables

Meaning:

It is already set.

Corrective action:

Confirm iptables -L –n(or ip6tables -L –n). If there is no problem with the setting, no action is necessary.

If the setting is no longer correct or is defective, delete the setting. Reexecute the command.

The setting was completed

Meaning:

The setting was completed.

Corrective action:

No action is necessary.

(6) End status

0: Normal end

>0: Abnormal end

(7) Configuration procedure

Configure the interface for the management LAN before executing this command.

A set content depends on the communication protocol used by management LAN.

➢ **In case of IPv4**

1. Specify the IP address of the management LAN interface in the SVmco configuration file (/etc/fujitsu/SVmco/usr/ipsetup.conf).

   For details on setting the IP address of the management LAN interface, see 2.1.2 Setting the management LAN IP address.

   Configuration example/etc/fujitsu/SVmco/usr/ipsetup.conf

[NETWORK] ManagementIP=192.168.0.1

2. Prepare a configuration file that contains the IP addresses of the ports to open.

   In the configuration file, specify the physical IP addresses of the MMBs (MMB physical IP addresses <MMB#0/MMB#1>) that belong to any of the cluster nodes defined in PRIMECLUSTER. Alternatively, specify the network IP address that includes the aforementioned MMB physical IP addresses, following the line that contains "[PCL]" only. Each line in the file should contain only one entry.

   Configuration example/tmp/config.txt

[PCL] 192.168.0.0/24 192.168.1.5

   Remarks

   A sample configuration file is available at:

   /opt/fujitsu/SVmco/sh/sample_conf_setmlanfw.txt

3. Execute setmlanfw.sh with the configuration file prepared in step 2 specified.

   After you execute this command, messages to confirm the settings made in step 1 and step 2 appear. Enter "Y" to accept the settings or "N" to edit the settings.

   Then, proceed to the next process.

   Execution example Specifying the configuration file prepared in step 2

```
# /opt/fujitsu/SVmco/sh/setmlanfw.sh /tmp/config.txt

Management LAN IP address:

192.168.0.1


Source IPs for PRIMECLUSTER Service:

192.168.0.0/24

192.168.1.5


Press "Y" to confirm above settings, "N" to cancel all settings

> Y

The setting was completed
```

4. Execute the iptables -L -n command to confirm that the configuration chain "MMLAN" exists.

   Executing the setmlanfw.sh command creates the configuration chain "MMLAN," which is referenced by the INPUT and OUTPUT chains.

   Execution example

```
# iptables -L -n

Chain INPUT (policy DROP)

target  prot opt source     destination

MMLAN   all  -- 0.0.0.0/0    0.0.0.0/0


Chain FORWARD (policy DROP)

target   prot opt source    destination


Chain OUTPUT (policy DROP)

target   prot opt source    destination

MMLAN   all -- 0.0.0.0/0   0.0.0.0/0
```

```
Chain MMLAN (2 references)
target  prot opt source      destination
ACCEPT  udp  -- 192.168.0.0/24  192.168.0.1   udp dpts:7000:7100
ACCEPT  udp  -- 192.168.0.1   192.168.0.0/24 udp spts:7000:7100
ACCEPT  udp  -- 192.168.0.0/24 192.168.0.1   udp dpt:162
ACCEPT  udp  -- 192.168.0.1   192.168.0.0/24 udp spt:162
ACCEPT  udp  -- 192.168.1.5   192.168.0.1   udp dpts:7000:7100
ACCEPT  udp  -- 192.168.0.1   192.168.1.5   udp spts:7000:7100
ACCEPT  udp  -- 192.168.1.5   192.168.0.1   udp dpt:162
ACCEPT  udp  -- 192.168.0.1   192.168.1.5   udp spt:162
```

> ➢ **In case of IPv6**

1. Specify the IP address of the management LAN interface in the SVmco configuration file (/etc/fujitsu/SVmco/usr/ipsetup_v6.conf).

    For details on setting the IP address of the management LAN interface, see 2.1.2 Setting the management LAN IP address.

    Configuration example/etc/fujitsu/SVmco/usr/ipsetup_v6.conf

    ```
    [NETWORK]
    ManagementIP=2001:2345::1480:9350:100
    ```

2. Prepare a configuration file that contains the IP addresses of the ports to open.

    In the configuration file, specify the physical IP addresses of the MMBs (MMB physical IP addresses <MMB#0/MMB#1>) that belong to any of the cluster nodes defined in PRIMECLUSTER. Alternatively, specify the network IP address that includes the aforementioned MMB physical IP addresses, following the line that contains "[PCL]" only. Each line in the file should contain only one entry.

    Configuration example/tmp/config.txt

    ```
    [PCL]
    2001:2345::1480:9350:101
    2001:2345::1480:9350:102
    ```

    Remarks

    A sample configuration file is available at:

    /opt/fujitsu/SVmco/sh/sample_conf_setmlanfw.txt

3. Execute setmlanfw.sh with the configuration file prepared in step 2 specified.

    After you execute this command, messages to confirm the settings made in step 1 and step 2 appear. Enter "Y" to accept the settings or "N" to edit the settings.

    Then, proceed to the next process.

    Execution example Specifying the configuration file prepared in step 2

```
# /opt/fujitsu/SVmco/sh/setmlanfw.sh /tmp/config.txt

Management LAN IP address:
2001:2345::1480:9350:100


Source IPs for PRIMECLUSTER Service:
2001:2345::1480:9350:101
2001:2345::1480:9350:102


Press "Y" to confirm above settings, "N" to cancel all settings

> Y

The setting was completed
```

4. Execute the ip6tables -L -n command to confirm that the configuration chain "MMLAN" exists.

   Executing the setmlanfw.sh command creates the configuration chain "MMLAN," which is referenced by the INPUT and OUTPUT chains.

   Execution example

```
# ip6tables –L

Chain INPUT (policy ACCEPT)
target    prot opt source           destination
ACCEPT    all    anywhere           anywhere           state
RELATED,ESTABLISHED
ACCEPT    ipv6-icmp  anywhere       anywhere
ACCEPT    all    anywhere       anywhere
ACCEPT    tcp    anywhere           anywhere           state NEW
tcp dpt:ssh
MMLAN     all    anywhere       anywhere
REJECT    all    anywhere           anywhere           reject-with
icmp6-adm-prohibited

Chain FORWARD (policy ACCEPT)
target    prot opt source           destination
REJECT    all    anywhere           anywhere           reject-with
icmp6-adm-prohibited


Chain OUTPUT (policy ACCEPT)
```

```
target    prot opt source          destination
MMLAN     all    anywhere          anywhere

Chain MMLAN (2 references)
target  prot  opt source      destination
ACCEPT             udp                2001:2345::1480:9350:101/128
2001:2345::1480:9350:100/128 udp dpts:afs3-fileserver:font-service
ACCEPT             udp                2001:2345::1480:9350:100/128
2001:2345::1480:9350:101/128 udp spts:afs3-fileserver:font-service
ACCEPT             udp                2001:2345::1480:9350:101/128
2001:2345::1480:9350:100/128 udp dpt:snmptrap
ACCEPT             udp                2001:2345::1480:9350:100/128
2001:2345::1480:9350:101/128 udp spt:snmptrap
ACCEPT             udp                2001:2345::1480:9350:102/128
2001:2345::1480:9350:100/128 udp dpts:afs3-fileserver:font-service
ACCEPT             udp                2001:2345::1480:9350:100/128
2001:2345::1480:9350:102/128 udp spts:afs3-fileserver:font-service
ACCEPT             udp                2001:2345::1480:9350:102/128
2001:2345::1480:9350:100/128 udp dpt:snmptrap

ACCEPT             udp                2001:2345::1480:9350:100/128
2001:2345::1480:9350:102/128 udp spt:snmptrap
```

(8) Configuration deletion procedure

To change part of the firewall configuration, such as the IP address of the management LAN interface, first delete the configuration.

After deleting it, reconfigure the firewall.

> **In case of IPv4**

1. Execute iptables -L -n to confirm that the configuration chain "MMLAN" exists.

   If it does not exist, the following steps are not necessary.

2. Delete the references to MMLAN from the INPUT and OUTPUT chains.

   Execution example

   ```
   # iptables -D INPUT -j MMLAN
   ```

```
# iptables -D OUTPUT -j MMLAN
```

3. Delete the settings in the configuration chain "MMLAN."

    Execution example

    ```
    # iptables -F MMLAN
    ```

4. Delete the configuration chain "MMLAN."

    Execution example

    ```
    # iptables -X MMLAN
    ```

> ➤ **In case of IPv6**

1. Execute ip6tables -L -n to confirm that the configuration chain "MMLAN" exists.

    If it does not exist, the following steps are not necessary.

2. Delete the references to MMLAN from the INPUT and OUTPUT chains.

    Execution example

    ```
    # ip6tables -D INPUT -j MMLAN
    # ip6tables -D OUTPUT -j MMLAN
    ```

3. Delete the settings in the configuration chain "MMLAN."

    Execution example

    ```
    # ip6tables -F MMLAN
    ```

4. Delete the configuration chain "MMLAN."

    Execution example

    ```
    # ip6tables -X MMLAN
    ```

5 Messages

This section describes the message of SVmco.

Describes the meaning of the messages displayed by SVmco, and how to handle the messages.

The message is output to syslog of OS.

The following terms indicate the severity of each message:

- Error: Serious system problem

- Warning: Caution or warning. The system can continue operating.

- Info: Notification event

5.1. SVmco Messages

This chapter lists SVmco log messages.

00002

system err() %s4, %s5, %s5, %s5, %s5

Meaning:

A SVmco system error was detected.

 %s4 = Numerical value (1 to 3 digits)

 %s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00003

system err() [%s1:%s2] %s4, %s5, %s5, %s5, %s5

Meaning:

A SVmco system error was detected.

 %s1 = Numerical value (1 digit)

 %s2 = Numerical value (2 to 4 digits)

 %s4 = Numerical value (1 to 3 digits)

 %s5 = Numerical value (1 to 8 digits)

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

00051

lib call err [%s1:%s2] (%s5) %s5, %s4, %s5, %s5, %s5, %s5

Meaning:

An error occurred during a required library call at SVmco startup.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00061

daemon normal end(etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A SVmco daemon process terminated normally.

Corrective action:

No action is necessary.

Severity:

Info

00062

child process abnormal end [%s1:%s2] (%s3) %s1:%s4

Meaning:

An error occurred in a SVmco child process.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s3 = Character string (2 to 7 characters)

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

00063

child process %s6 time out [%s1:%s2] (%s3)

Meaning:

A SVmco child process became unresponsive.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s3 = Character string (2 to 7 characters)

%s6 = stop or exec

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

00064

Start failed:Parameter error [%s1:%s2]

Meaning:

SVmco startup failed because of a parameter error.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00065

Start failed (/etc/fujitsu/SVmco/global/pmsvmco.conf):system call error [%s1:%s2]

Meaning:

A system call error occurred at SVmco startup.

 %s1 = Numerical value (1 digit)

 %s2 = Numerical value (2 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00066

Start failed (/etc/fujitsu/SVmco/global/pmsvmco.conf):File can not open [%s1:%s2] (%s4)

Meaning:

A file required for SVmco startup could not be opened.

 %s1 = Numerical value (1 digit)

 %s2 = Numerical value (2 to 4 digits)

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00067

Start failed (/etc/fujitsu/SVmco/global/pmsvmco.conf):Multiplex starting (%s4)

Meaning:

Multiple startups of SVmco occurred.

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00068

Start failed (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s1:%s4:child process was stopped

Meaning:

A SVmco child process was stopped.

 %s1 = Numerical value (1 digit)

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00069

startup succeeded (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

SVmco successfully started.

Corrective action:

No action is necessary.

Severity:

Info

00070

stop by Ctrl-C (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A SVmco process was stopped by Ctrl+C.

Corrective action:

No action is necessary.

Severity:

Info

00071

cannot open file (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A SVmco definition file could not be opened.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00072

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):line length over

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The character length of (file name:line=line number) is too long.

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00073

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):out of section

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

(file name:line=line number) is data outside the section.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00074

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):bad section

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The section format in (file name:line=line number) is incorrect.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00075

file read err (/etc/fujitsu/SVmco/global/pmsvmco.conf):not enough memory

Meaning:

The amount of allocatable memory is less than the memory size required for SVmco operation.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00076

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):section name overlaps

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The same section name as in (file name:line=line number) was detected.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00077

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):bad member

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The member format in (file name:line=line number) is incorrect.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00078

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):member

name overlaps

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The same member name as in (file name:line=line number) was detected.

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00079

file read err (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s5:%s4:system error

Meaning:

An error occurred during reading of a SVmco definition file.

 %s4 = Numerical value (1 to 3 digits)

 %s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00080

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s5:%s4:bad member

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

(file name) is an invalid member.

 %s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00081

cannot   change   directory (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s1:%s4

Meaning:

The work directory change in SVmco failed.

%s1 = Numerical value (1 digit)

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00083

starting timeout (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A time-out was detected at SVmco startup.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00090

abnormal end of service was detected

Meaning:

A SVmco service terminated abnormally.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00100

Stop failed:Parameter error [%s1:%s2]

Meaning:

SVmco stop failed because of a parameter error.

 %s1 = Numerical value (1 digit)

 %s2 = Numerical value (2 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00101

timeout occurred (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A time-out occurred while SVmco was stopped.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00102

message err [%s1:%s2] (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s4

Meaning:

An error occurred in message processing while SVmco was stopped.

 %s1 = Numerical value (1 digit)

 %s2 = Numerical value (2 to 4 digits)

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00104

request is rejected [%s1:%s2] (%s5) %s5

Meaning:

A SVmco stop request was rejected.

 %s1 = Numerical value (1 digit)

 %s2 = Numerical value (2 to 4 digits)

 %s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00105

Under stop processing execution [%s1:%s2] (%s5) %s5

Meaning:

SVmco stop has been requested.

 %s1 = Numerical value (1 digit)

 %s2 = Numerical value (2 to 4 digits)

 %s5 = Numerical value (1 to 8 digits)

Corrective action:

No action is necessary.

Severity:

Info

00111

lib call err [%s1:%s2] (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s1:%s5, %s4, %s5, %s5, %s5, %s5

Meaning:

A library call failed during the SVmco stop process.

 %s1 = Numerical value (1 digit)

 %s2 = Numerical value (2 to 4 digits)

 %s4 = Numerical value (1 to 3 digits)

 %s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00112

system call err [%s1:%s2] (%s5) %s1:%s4

Meaning:

A system call error occurred during the SVmco stop process.

 %s1 = Numerical value (1 digit)

 %s2 = Numerical value (2 to 4 digits)

 %s4 = Numerical value (1 to 3 digits)

 %s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00129

stop succeeded (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

The SVmco stop process was successful.

Corrective action:

No action is necessary.

Severity:

Info

00130

stopped by Ctrl-C (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

The SVmco stop process was stopped by Ctrl+C.

Corrective action:

No action is necessary.

Severity:

Info

00131

cannot open file (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

The definition file for the SVmco stop process could not be opened.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00132

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :line length over

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The character length of (file name:line=line number) is too long.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00133

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :out of section

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

(file name:line=line number) is data outside the section.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00134

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :bad section

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could

not start.

The section format in (file name:line=line number) is incorrect.

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00135

file read err (/etc/fujitsu/SVmco/global/pmsvmco.conf):not enough memory

Meaning:

The amount of allocatable memory is less than the memory size required for the SVmco stop process.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00136

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :section name overlaps

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The same section name was detected in (file name:line=line number).

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00137

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :bad member

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The member format in (file name:line=line number) is incorrect.

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00138

file   format   err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4)   :member   name overlaps

Meaning:

The format of the definition file for the SVmco stop process is incorrect.

The same member name as in (file name:line=line number) was detected.

 %s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00139

file read err (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s5:%s4:system error

Meaning:

An error occurred during reading of the definition file for the SVmco stop process.

 %s4 = Numerical value (1 to 3 digits)

 %s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00140

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf)%s5:%s4　:no member

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

A required member could not be found in (file name).

 %s4 = Numerical value (1 to 3 digits)

 %s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00141

cmd_path length over

Meaning:

The path length of the command used for the SVmco stop process is too long.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00142

cmd_path disconnected [%s1:%s2] %s1:%s4

Meaning:

The command path used for the SVmco stop process was disconnected.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00143

target process does not exist [%s1:%s2] (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

The process that is to be stopped during the SVmco stop process could not be found.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

00399

(%s1-%s2) Process Manager Down:Err (i_err=%s4, os_err=%s5, detail(1=%s5, 2=%s5, 3=%s5))

Meaning:

SVmco Process Manager failed.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

01190

setting error (%1)

Meaning:

The preparation process for setting PANIC as the MMB system status at operating system hang failed.

%1 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

01191

configuration file error (%1,%2)

Meaning:

The file that contains the Software Watchdog timer setting used for operating system hang has a description error. The setting is invalid. (The Software Watchdog timer is stopped.)

%1 = File name (character string. Full path)

%2 = Detailed error code (4-digit numerical value)

1176: The configuration file is invalid. Confirm the existence and format of the configuration file.

1177: A setting value is invalid. Confirm the setting value.

1178: A setting value is outside its range. Check the range of the setting value.

1179: No section/member was found. Confirm that the section/member definition is correct.

Corrective action:

Check the configuration file. If the problem persists, contact your sales representative or a field engineer.

Severity:

Warning

04000

system err [%1:%2] %3,%4,%5,%6,%7

Meaning:

A SVmco system error was detected.

%1 = Numerical value (1 to 2 digits)

%2 = Numerical value (1 to 4 digits)

%3 = Numerical value (1 to 3 digits)

%4 = Numerical value (1 to 10 digits)

%5 = Numerical value (1 to 10 digits)

%6 = Numerical value (1 to 10 digits)

%7 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04001

system err [%1:%2] %3

Meaning:

A SVmco system error was detected.

 %1 = Numerical value (1 to 2 digits)

 %2 = Numerical value (1 to 4 digits)

 %3 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04002

Start failed :system call error [%1:%2] %3

Meaning:

A system call error occurred at SVmco startup.

 %1 = Numerical value (1 to 2 digits)

 %2 = Numerical value (1 to 4 digits)

 %3 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04004

starting timeout (%1)

Meaning:

A time-out was detected at SVmco startup.

 %1 = Character string (1 to 256 characters)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

04005

Start failed :stop request (%1) [%2:%3]

Meaning:

A service stop request was accepted during SVmco startup.

 %1 = Character string (1 to 256 characters)

 %2 = Numerical value (1 to 2 digits)

  %3 = Numerical value (1 to 4 digits)

Corrective action:

No action is necessary.

Severity:

Info

04007

Start failed: cannot execute process (%1) [%2:%3] %4

Meaning:

An error occurred at SVmco process startup.

 %1 = Character string (1 to 256 characters)

 %2 = Numerical value (1 to 2 digits)

 %3 = Numerical value (1 to 4 digits)

 %4 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04008

cannot open file (%1)

Meaning:

A SVmco definition file cannot be opened.

 %1 = Character string (1 to 256 characters)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04009

file read err (%1): not enough memory

Meaning:

The amount of allocatable memory is less than the memory size required for SVmco operation.

 %1 = Character string (1 to 256 characters)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04010

Start failed (%1): configure error [%2:%3] %4

Meaning:

An error was detected in a setting value of the SVmco definition file.

 %1 = Character string (1 to 256 characters)

 %2 = Numerical value (1 to 2 digits)

 %3 = Numerical value (1 to 4 digits)

 %4 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04011

Start failed (%1) %2:%3:child process was stopped

Meaning:

An error was detected in a setting value of the SVmco definition file.

%1 = Character string (1 to 256 characters)

%2 = Numerical value (1 digit)

%3 = Character string (1 to 10 hexadecimal digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04012

lib call err [%1:%2] %3,%4,%5,%6,%7,%8

Meaning:

An error occurred during a required library call at SVmco startup.

%1 = Numerical value (1 to 2 digits)

%2 = Numerical value (1 to 4 digits)

%3 = Numerical value (1 to 10 digits)

%4 = Numerical value (1 to 3 digits)

%5 = Numerical value (1 to 10 digits)

%6 = Numerical value (1 to 10 digits)

%7 = Numerical value (1 to 10 digits)

%8 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04013

cannot change directory %1:%2

Meaning:

The work directory change in SVmco failed.

 %1 = Numerical value (1 to 10 digits)

 %2 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04018

child process abnormal end [%1:%2] (%3) %4:%5

Meaning:

A SVmco child process terminated abnormally.

 %1 = Character string (1 to 256 characters)

 %2 = Numerical value (1 digit)

 %3 = Character string (1 to 10 hexadecimal digits)

 %4 = Numerical value (1 to 2 digits)

 %5 = Numerical value (1 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

04019

service was started

Meaning:

A SVmco service was started.

Corrective action:

No action is necessary.

Severity:

Info

04020

service was stopped

Meaning:

A SVmco service was stopped.

Corrective action:

No action is necessary.

Severity:

Info

04802

management IP wrong format. Data=file_no;%d1, line:%d2, data:"%s"

Meaning:

There are mistakes in the configuration file of management LAN.

  %d1 = Numerical value of decimal number (1 digits)

  %d2 = Numerical value (1-4 digits)

  %s = Cause details

Corrective action:

Correct the configuration file correctly according to the following procedures, and restart SVmco.

◆   %s is "File format error. "

    The mistake is found in the format of ipsetup.conf or the ipsetup_v6.conf

    file.

    Please confirm the following formats.

    ➢   In case of IPv4

     ipsetup.conf

```
 [NETWORK]
 ManagementIP=xxx.xxx.xxx.xxx
```

    ➢   In case of IPv6
     ipsetup_v6.conf

```
[NETWORK]
ManagementIP=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx
```

◆ %s is "not IPv4 format"

The mistake is found in the format of ManagementIP of the ipsetup.conf file.

Please reconfigure IP address by formatting IPv4.

◆ %s is "not IPv6 format"

The mistake is found in the format of ManagementIP of the

ipsetup_v6.conf file.

Please reconfigure IP address by formatting IPv4.

If the problem persists, collect getosvmco, and contact your sales representative or a field engineer.

Severity:

Warning

05308

FJSVfefpcl driver open error

Meaning:

An ioctl error occurred when it was issued to fefpcl, or the state of fefpcl is abnormal. The error is reported in the ioctl results.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

05380

configuration file error (%1,%2)

Meaning:

There is no definition file for the half/full down detection threshold setting for the PRIMECLUSTER linkage function, or the file has a description error. The operation is performed with the default settings.

%1 = File name (character string. Full path)

%2 = Detailed error code (4-digit numerical value)

5408: A configuration file error occurred. Confirm the existence and format of the configuration file.

5409: No section/member was found. Confirm that the section/member definition is correct.

5410: The magnitude relationship between the members is invalid. Check the magnitude relationship between the setting values.

5411: A setting value is invalid. Confirm the setting value.

5412: A setting value is outside its range. Check the range of the setting value.

Corrective action:

Check the configuration file. If the problem persists, contact your sales representative or a field engineer.

Severity:

Warning

05402

FJSVfefpcl is not installed

Meaning:

The fefpcl driver is not installed.

Corrective action:

If the driver is not installed, install it. If the driver is already installed or if the problem persists after driver installation, contact your sales representative or a field engineer.

Severity:

Info