

FMC Linux Configuration Files

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The file `/etc/sysconfig/dim`

Description

This file must contain one record (line) which defines the node on which the **DIM Name Server** is running. The file is accessed by many servers and clients which need to contact the DIM Name Server to publish services (servers) or to subscribe to services (typically clients).

Record format

`DIM_DNS_NODE= <node.domain>`

with no spaces ahead or behind of the = (equal sign).

Example:

`DIM_DNS_NODE=ctrl100.daq.lhcb`

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The file `/etc/sysconfig/fmc`

Description

This file must contain the **list** of the **FMC Control Servers** to be started at system start-up by the **system V start-up scripts** and their **command-line arguments**.

Record format

Can be one of the following:

- `LOG_SRV=<yes|no>`
- `TM_SRV=<yes|no>`
- `CM_SRV=<yes|no>`
- `PC_SRV=<yes|no>`
- `IPMI_SRV=<yes|no>`
- `LOG_ARGS="<logSrv arguments>"`
- `TM_ARGS="<tmSrv arguments>"`
- `CM_ARGS="<cmSrv arguments>"`
- `PC_ARGS="<pcSrv arguments>"`
- `IPMI_ARGS="<ipmiSrv arguments>"`

Examples:

Typical **Worker Node** configuration (see [logSrv\(8\)](#), [tmSrv\(8\)](#), [cmSrv\(8\)](#), [pcSrv\(8\)](#) and [ipmiSrv\(8\)](#) for a description of the the command-line arguments):

```
# tools to be started
# LOG_SRV=yes                                # Message Logger Server
# TM_SRV=yes                                 # Task Manager Server
# CM_SRV=yes                                 # Configuration Manager Server
# PC_SRV=no                                  # Process Controller Server
# IPMI_SRV=no                                # Power Manager Server
# -----
# command-line arguments
# see /opt/FMC/man/man8
LOG_ARGS="-S 200"
TM_ARGS="-p 2 -u online -U root --no-auth"
CM_ARGS=""
PC_ARGS="-u online -g online --no-auth"
IPMI_ARGS="-t 0"
# -----
```

Typical **Control Node** configuration (see [logSrv\(8\)](#), [tmSrv\(8\)](#), [cmSrv\(8\)](#), [pcSrv\(8\)](#) and [ipmiSrv\(8\)](#) for a description of the the command-line arguments):

```
# -----
# tools to be started
# LOG_SRV=yes                                # Message Logger Server
# TM_SRV=yes                                 # Task Manager Server
# CM_SRV=yes                                 # Configuration Manager Server
# PC_SRV=yes                                 # Process Controller Server
# IPMI_SRV=yes                               # Power Manager Server
# -----
# command-line arguments
# see /opt/FMC/man/man8
LOG_ARGS="-S 200"
TM_ARGS="-p 2 -u online -U root --no-auth"
CM_ARGS=""
PC_ARGS="-u online -g online --no-auth"
IPMI_ARGS="-t 0"
# -----
```

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The file `/etc/cmSrv.conf`

Description

The file `/etc/cmSrv.conf` must contain the **list of the files** that can be **created**, **read**, **modified** and **deleted** by the **FMC Configuration Manager Server** ([cmSrv\(8\)](#)) running on the current node. This file is ignored if the FMC Configuration Manager Server is started with the `--no-authentication` command line option. In this case all the files in the file system can be created, modified and deleted by the FMC Configuration Manager Server running on this node.

File format

File is made of an arbitrary number of **records**. Records are separated by the character `'\n'` (new-line, line-feed, LF, ASCII 0x0a). Blank records as well as comment records (i.e. records starting with the `'#'` character) are skipped. If a record contains the `'#'` character, all characters following the `'#'` character (including the `'#'` itself) are ignored.

Record format

```
(permission) file_name
```

Record fields description:

permission

The access permission, which can be `ro` (read only) or `rw` (read and write).

file_name

The absolute path of the file, which must not contain blanks.

N.B.

Do **NOT** add records "(rw) /etc/cmSrv.allow" and "(rw) /etc/cmSrv.conf" unless you understand well what you are doing!

Record Examples:

```
(rw) /etc/sysconfig/fmc
(rw) /etc/tmSrv.allow
(rw) /etc/ipmiSrv.conf
(rw) /etc/pcSrv.conf
(rw) /etc/pcSrv.init
(rw) /etc/pcSrv.allow
(rw) /tmp/test.conf
(ro) *
```

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The file /etc/cmSrv.allow

Description

The file /etc/cmSrv.allow must contain the list of the **couples** of wildcard patterns **user_pattern@hostname_pattern** **allowed to issue commands** to the **Configuration Manager Server** ([cmSrv\(8\)](#)) running on the current node.

File format

One couple **user_pattern@hostname_pattern** per **record**. Records are separated using '**\n**' (new-line, line-feed, LF, ASCII 0x0a). Blank records as well as comment records (i.e. records starting with the '#' character) are skipped.

Record format

user_pattern@hostname_pattern (**user_pattern** and **host_pattern** are separated by the '@' (at) character).

Record fields description:

user_pattern

user-name wildcard pattern (see [glob\(7\)](#)).

host_pattern

host-name wildcard pattern (see [glob\(7\)](#)).

Record Examples:

```
online@farm0101.mydomain
*@farm0101.mydomain
online@*
*@*
online@farm01???.mydomain
online@farm01?[0-9].mydomain
online@farm01[0-9][0-9].mydomain
```

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The file /etc/tmSrv.allow

Description

The file /etc/tmSrv.allow must contain the list of the **couples** of wildcard patterns **user_pattern@hostname_pattern** **allowed to issue commands** to the **Task Manager Server** ([tmSrv\(8\)](#)) running on the current node and is needed only if the Task Manager Server is running in authenticated mode (option **--no-authentication** **not** chosen).

File format

One couple **user_pattern@hostname_pattern** per **record**. Records are separated using '**\n**'

(new-line, line-feed, LF, ASCII 0x0a). Blank records as well as comment records (i.e. records starting with the '#' character) are skipped.

Record format

user_pattern@**hostname_pattern** (**user_pattern** and **hostname_pattern** are separated by the '@' (at) character).

Record fields description:

user_pattern

user-name wildcard pattern (see [glob\(7\)](#)).

host_pattern

host-name wildcard pattern (see [glob\(7\)](#)).

Record Examples:

```
online@farm0101.mydomain
*farm0101.mydomain
online@*
*.*
online@farm01???.mydomain
online@farm01?[0-9].mydomain
online@farm01[0-9][0-9].mydomain
```

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The file **/etc/pcSrv.conf**

Description

The file **/etc/pcSrv.conf** must contain the **list** of the **host names** of the nodes controlled by the **Process Controller Server** ([pcSrv\(8\)](#)) running on the current node.

File format

One **hostname** per **record**. Records are separated using '\n' (new-line, line-feed, LF, ASCII 0x0a). Blank records as well as comment records (i.e. records starting with the '#' character) are skipped.

Record format

hostname (without domain).

Record examples:

```
farm0101
farm0102
farm0103
farm0104
```

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The file **/etc/pcSrv.init**

Description

The file **/etc/pcSrv.init** must contain the **list** of the **processes** to be **started** at the **start-up** of the the Process Controller Server ([pcSrv\(8\)](#)) running on the current node. Further processes can be added at run time to the list by means of the [pcAdd\(1\)](#) command. Processes can be removed from the list by means of the [pcRm\(1\)](#) command.

File format

One **process entry** per **record**. Records are separated using '\n' (new-line, line-feed, LF, ASCII 0x0a). Blank records as well as comment records (i.e. records starting with the '#' character) are skipped.

Record format

the same format of the [pcAdd\(1\)](#) command (excepting `-v`, `-N`, `-C` and `--no-authentication` options), i.e:

```
[ -m NODE_PATTERN... ] [ -c ] [ -D NAME=VALUE... ] [ -s SCHEDULER ] [ -p NICE_LEVEL ] [ -r
RT_PRIORITY ] [ -a CPU_NUM... ] [ -d ] [ -n USER_NAME ] [ -g GROUP_NAME ] [ -w WD ] [ -o ] [ -e ] [ -O
OUT_FIFO ] [ -E ERR_FIFO ] [ -A ] [ -N MAX_START_N ] [ -K CHECK_PERIOD ] [ -X DIS_PERIOD ] -u
UTGID PATH [ ARG... ]
```

Parameter Expansion

The string "`${RUN_NODE}`" is replaced by the `hostname` of the node on which the process is started, in the fields: `UTGID`, `PATH`, `ARG`, `WD`, `NAME=value`, `OUT_FIFO` and `ERR_FIFO`.

Record examples:

```
-u counter /opt/FMC/tests/counter
-m * -e -o -c -u memSrv_u /opt/FMC/sbin/memSrv -l 1
-m * -e -o -c -u fsSrv_u -n root /opt/FMC/sbin/fsSrv -l 1 -a
-m * -c -u gaudiLog /opt/FMC/sbin/logSrv -S 100 -p /tmp/logGaudi.fifo -s gaudi
-m * -e -o -u counter_${RUN_NODE} /opt/FMC/tests/counter -a ${RUN_NODE}
```

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The file `/etc/pcSrv.allow`

Description

The file `/etc/pcSrv.allow` must contain the **list** of the **couples** of **wildcard patterns** `user_pattern@hostname_pattern` **allowed to issue commands** to the **Process Controller Server** ([pcSrv\(8\)](#)) running on the current node and is needed only if the Process Controller Server is running in authenticated mode (option `--no-authentication` **not** chosen).

File format

One couple `user_pattern@hostname_pattern` per **record**. Records are separated using `'\n'` (new-line, line-feed, LF, ASCII 0x0a). Blank records as well as comment records (i.e. records starting with the `'#'` character) are skipped.

Record format

`user_pattern@hostname_pattern` (`user_pattern` and `host_pattern` are separated by the `'@'` (at) character).

Record fields description:

`user_pattern`

user-name wildcard pattern (see [glob\(7\)](#)).

`host_pattern`

host-name wildcard pattern (see [glob\(7\)](#)).

Record Examples:

```
online@farm0101.mydomain
*@farm0101.mydomain
online@*
*@*
online@farm01???.mydomain
online@farm01?[0-9].mydomain
online@farm01[0-9][0-9].mydomain
```

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The file `/etc/ipmiSrv.conf`

Description

The file `/etc/ipmiSrv.conf` must contain both the **Global Configuration Parameters** and the

Per-node Configuration Parameters of the **Power Manager Server** ([ipmiSrv\(8\)](#)) running on the current node.

File format

File is made of an arbitrary number of records, which can be either a **global configuration record** or a **node configuration record**. Records are separated by the character `'\n'` (new-line, line-feed, LF, ASCII 0x0a). Blank records as well as comment records (i.e. records starting with the `'#'` character) are skipped. If a record contains the `'#'` character, all characters following the `'#'` character (including the `'#'` itself) are ignored.

Global configuration record format

Can have one of the following three formats (where the strings need to be quoted, by double quotation marks, only if they include spaces):

```
IPMI_USER=string
    Set the default username (mandatory).
IPMI_PASSWD=string
    Set the default password (mandatory).
IPMI_CMD=string
    Set the path to the ipmitool executable image (optional).
```

Per-node configuration record format

The per-node record is made of 7 fields, separated by the character `','` (comma), in the sequence: `hostName,userName,passWord,port,authType,privLvl,oemType`.

The first field (`hostName`) is mandatory; the following fields can be omitted. The last fields can be omitted simply avoid writing them. Intermediate fields can be omitted by writing the string `"NULL"` (see examples below).

Per-node configuration field description:

```
hostName (mandatory)
    Hostname (IPMI interface) of the controlled node.

userName (optional)
    Username sent to the controlled node for the IPMI authentication. Can be noUser if no
    username has to be sent.

passWord (optional)
    Password sent to the controlled node for the IPMI authentication.

port (optional)
    UDP port contacted on the controlled node. Default port: 623.

authType (optional)
    Authentication type to use during IPMIv1.5 lan session activation on the controlled node.
    Supported types are: NONE, PASSWORD, MD2, MD5, or OEM.

privLvl (optional)
    Force session privilege level on the controlled node. Allowed level: CALLBACK, USER,
    OPERATOR, ADMINISTRATOR. Default level: ADMINISTRATOR.

oemType (optional)
    Select OEM type to support on the controlled node. This usually involves minor hacks in
    place in the code to work around quirks in various BMCs from various manufacturers.
    Supported types are: supermicro, intelwv2, intelplus, icts, ibm.
```

See [ipmitool\(1\)](#) for more details.

Example:

```
# -----
# Sample configuration file /etc/ipmiSrv.conf
# -----
```

```
# Global configuration records
IPMI_USER=root          # default user
IPMI_PASSWD=my_passwd  # default password
# -----
# Per-node configuration records
# hostName,userName,passWord,port,authType,privLvl,oemType
farm0101
farm0102,myuser
farm0102,noUser
farm0103,noUser,mypassword
farm0104,myuser,mypassword,1623
farm0105,myuser,mypassword,1623,MD2,OPERATOR,intelwv2
farm0106,NULL,NULL,NULL,MD2,OPERATOR,intelwv2
# -----
```

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-- [DomenicoGalli](#), 30 Oct 2008 - 14:11

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