COMVERSE UNIVERSITY

OMNI Monitoring Tools

Lesson Objectives

By the end of this lesson, you will be able to describe:

- OMNI monitoring commands
- Distributed file system
  - Main configuration files
- MML commands
- OMNI alarms
- OMNI event files

Agenda

- **OMNI Monitoring Commands**
- **Distributed File System**
- **MML Commands**
- **Alarms and Events**

What Is OMNI

- OMNI is a middleware, upon which many of the Comverse ONE interfaces run.

- To access OMNI, connect to the desired interface, then type:
  mml

Is OMNI Running?

To check if OMNI is running, execute these commands from the desired interface.

ps -ef | grep pop

```
[root@sgu1 ~]# su - sguuser
SGU:sgu1> ps -ef |grep pop
root     29711 29429  0 Oct26 ?        00:00:09 pop
/home/sguuser/start.204
```

ps -ef | grep omni

OMNI Stop and Start (1)

	Linux
CCS	Service omni stop
DGU , SGU, SLU	Service omni start

Agenda

- OMNI Monitoring Commands
- **Distributed File System**
- MML Commands
- Alarms and Events

Distributed File System

- The Distributed File (DF) system resides in the Shared Memory and provides node synchronization.
- All nodes can read and modify files stored in the DF (mostly configuration files).

- There is a special set of commands for working with this file system. To use them change user to SGU/DGU/SNCP user.

- **DFls**: Lists the files on the DF
- **DFcat**: Displays the contents of a file

DFIs Command

This commands displays all shared memory files, such as configuration or measurement files.

```
archive.C7.204.101210
archive.C7.204.101215
archive.C7.204.101220
cestart.204
db.C7.mtp.204.pri
db.C7.mtp.204.pri.bak
db.C7.sccp.204.pri
db.IP.mm.204.pri
dtcap.cfg.204
guiserver.clint.tbl.204
meas_conf_info.C7.204
meas_conf_info.IP.204
mmlappl.IP.204
mmldbname.IP.204
pmdb.204
tap.204.log
tapdes.204
```

Measurement Files

These are measurement files as they appear in the DFls command output. They collect data concerning SS7 logical node performance.

```
BackupDays.IP.204
IPmeas.204.1216.1292450521
IPmeas.204.1217.1292536921
IPmeas.204.1218.1292623321
IPmeas.204.1219.1292709721
IPmeas.204.1220.1292796121
IPmeas.204.1221.1292882521
IPmeas.204.1222.1292968921
Meas.C7.204.1122
Meas.C7.204.1123
Meas.C7.204.1124
```

OMNI-Designated Processes File

The Tapdes.201 file lists all the designated processes on the OMNI cluster. These are the processes that will run automatically in the OMNI cluster once it is loaded.

```
SGU:sgu1> DFcat tapdes.204
TAP
PM
PortMon
OOSVR
GUISVR
MCONF
C7_NM
C7_MEAS
C7_L3MTP
C7_SCMG
C7_TCMG
IP_NM
MEAS_MANAGER
ALMSVR
CEMEAS
ALMSS7
DTCAP
```

Computing Elements Startup File

The **cestart** file contains the URE applications that are to be started.

These will run on top of the relevant interface, and not on OMNI itself.

```
SLU:slu1> DFcat cestart.202

.CE slu1
@IP IPC
OPPS    . 1 DEF DEF  202  100 /home/omni/bin/CallProcessor -name
OPPS -T
TPPS    . 1 DEF DEF  202  100 /home/omni/bin/CallProcessor -tpps
-name TPPS -T
URE_Q2  . 1 DEF DEF  202  100 /home/omni/bin/ure -Q -ratingdb 2
URE_U2  . 2 DEF DEF  202  100 /home/omni/bin/ure -U -ratingdb 2
TSP       . 1 DEF DEF  202  100 /home/omni/bin/tsp
NOTIFAGENT . 0 DEF DEF  202  100 /home/omni/bin/notifAgent
BILL_MANAGER . 2 DEF DEF 202 100 ipcbm -purge 2 -size 10240 -
time 0 -period 60
```

Agenda

- OMNI Monitoring Commands
- Distributed File System
- **MML Commands**
- Alarms and Events

Entering MML

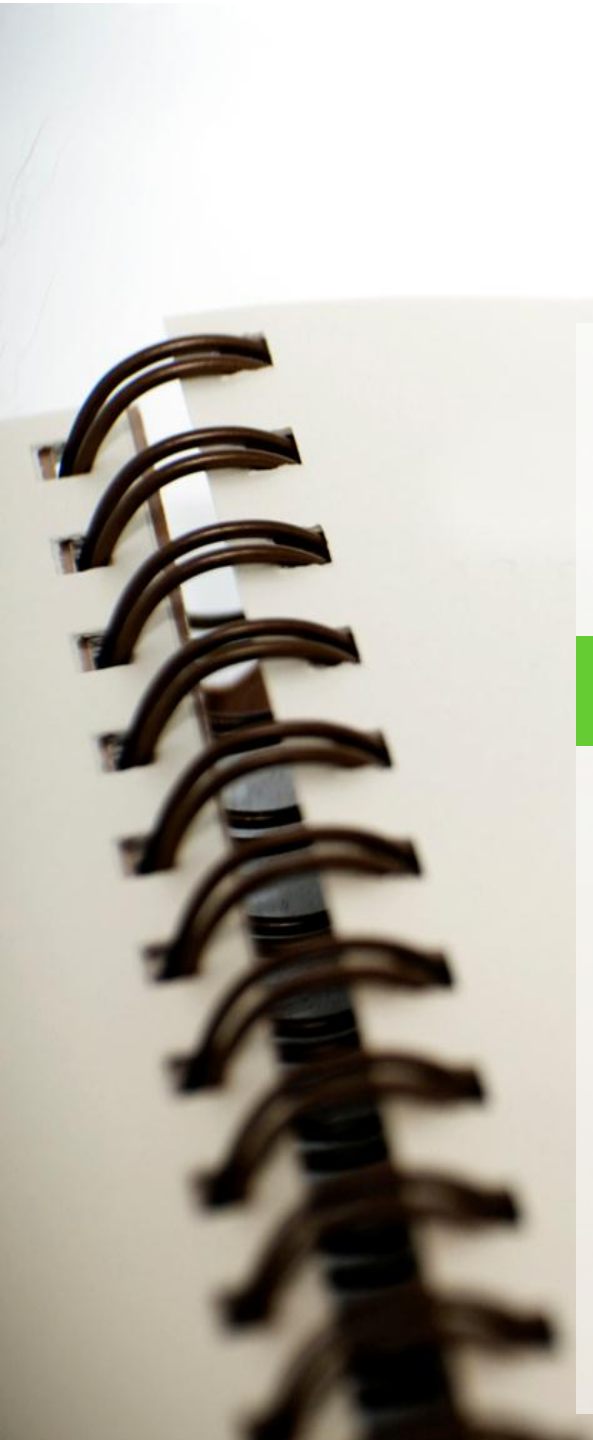
The MML is used for OMNI management.

```
SGU:sgu1> termhandler -node C7 or mml

+-------------+    Terminal Handler [Started]
| TermHandler |    Copyright 1993, 1994 DGM&S
+-------------+    All Rights Reserved



Usage: Filename:    - to execute from a file
       MML command: - series of mml command(s)

OMNI [22 Dec 2010 12:12:10] #1:
```

Display-Designation

```
OMNI [22 Dec 2010 13:44:23] #1:display-designation;

Send [DISPLAY-DESIGNATION;]? [Y/N]y
Sent MML command #1  to ACTV_PM, cmd[DISPLAY-DESIGNATION;]
starting 600 sec. timer...
1    [22 Dec 2010 13:44:36]
DISPLAY-DESIGNATION;
Designatable Process copies for system 204

Process         Active Copy    Standby Copy   Idle Copies
TAP                   sgu1           (none)
PM                     sgu1           (none)
PortMon              sgu1           (none)
OOSVR              sgu1           (none)
GUISVR             sgu1           (none)
MCONF            (none)         (none)
C7_NM              sgu1           (none)
C7_MEAS          sgu1           (none)
C7_L3MTP         sgu1           (none)
```

Agenda

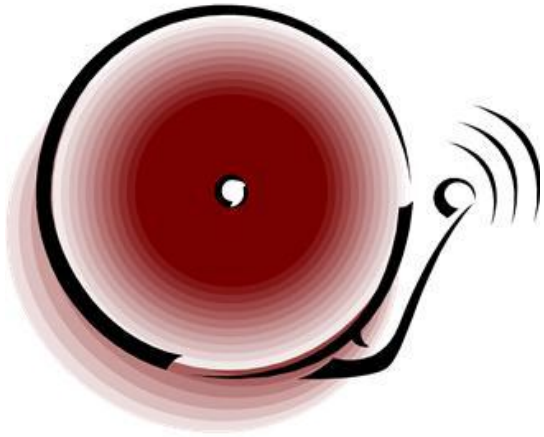


- OMNI Monitoring Commands
- Distributed File System
- MML Commands
- **Alarms and Events**

Alarms and Events Monitoring Facility

- Alarm and Event Monitoring Facility
  - Notifies the operator of faults and other events that affect the operation of the SGU

- The facility supports two kinds of operator notification messages:
  - Alarms
  - Events



Alarms and Events

The alarms and events are written to DF log files:

The file is a **binary** file of the alarm file and should not be viewed, moved, or deleted.

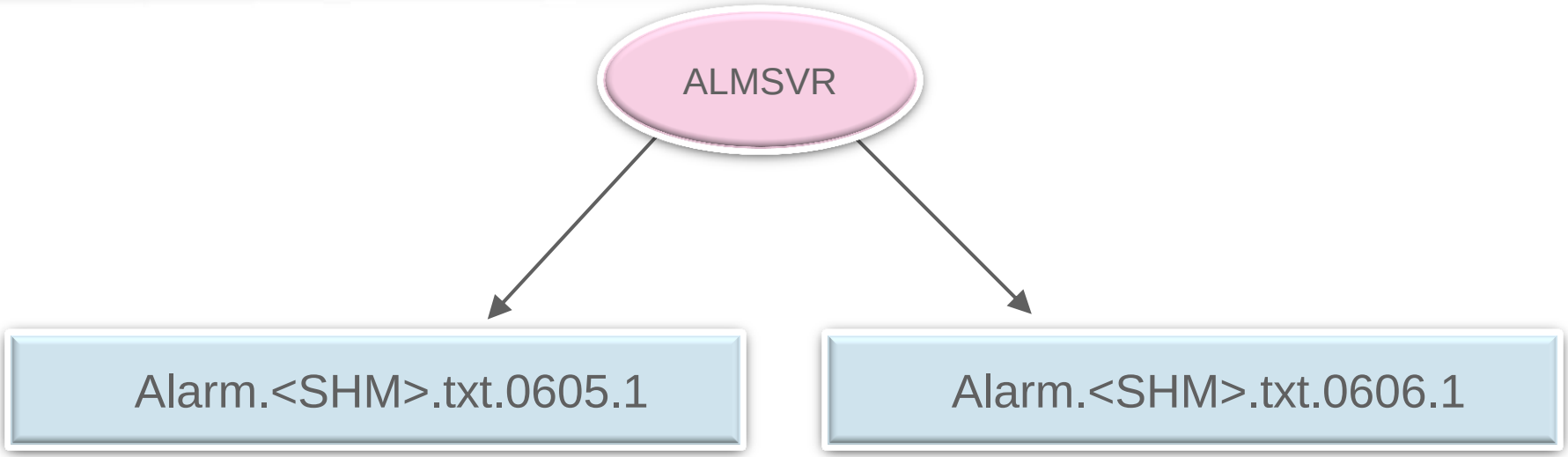
Alarms

- **Hardware problems**
- **Software problems**
- **Service fault**

Events

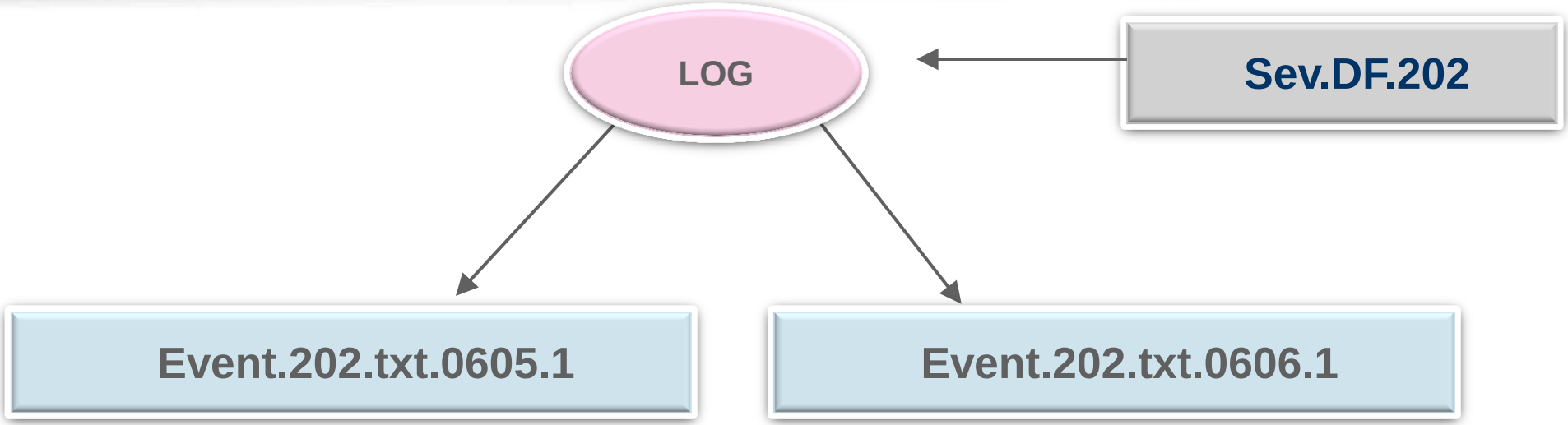
- **Diagnostic messages**
- **Debug output**
- **Low-level OS faults**
- **Illogical coding conditions**
- **Other information**

Alarm.SHM.<mmdd>.<nnnn…>



- File located under – **/home/omni/<CE Name>/tmp**
- There are two kind of files – use only the txt file
  - txt – Text format
  - nls – Binary format

Event.202.<mmdd>.<nnnn…>

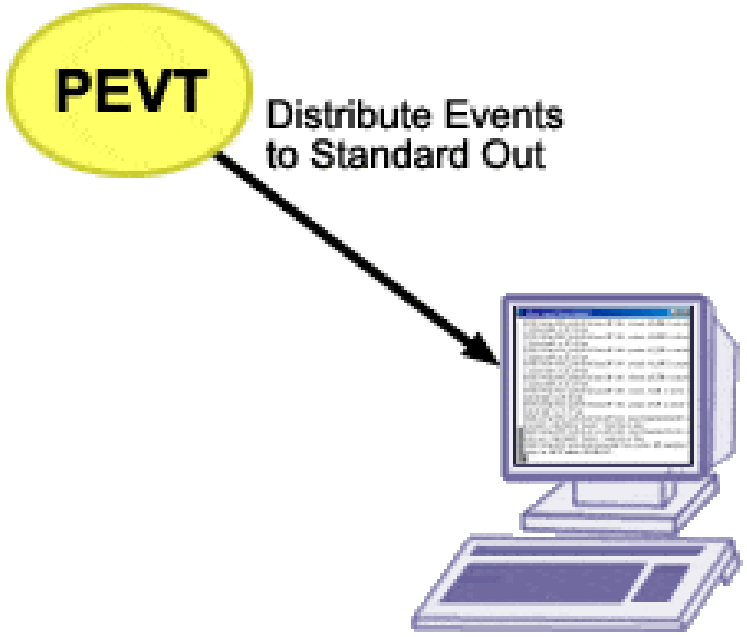


File located under – **/home/omni/man/event/txt/**

```
EVENT 017016
        TAP: FtSendIpc() to <string> failed, errno <numeric>

ORIGINATOR -     tap(1q)

SEVERITY -       CRITICAL

CAUSE
        FtSendIpc(3f) to the given destination process failed.

SUGGESTED ACTION
        Restart destination process, or logical node, or platform.
```

Viewing the Events

- Files can be viewed by executing DFcat on the appropriate file.
- The PEVT tool can be used to direct the output directly to the terminal screen as it is being created.

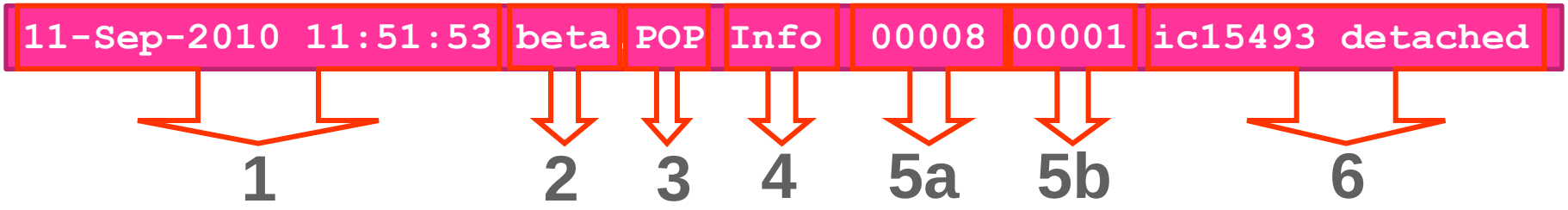


Events Files

The LOG process records events in the Event files located – **~/<ce>/tmp>**

For example – **~/sgu1a/tmp>Event.201.txt.0316.1**

Event File Structure



16-Mar-2010 16:38:43 map1.POP Error 00008 00006 pevt24801 failed health check [entry=23 pid=24801]

Each event file contains:

1. Date and time
2. System name (CE)
3. Originating process
4. Severity level (info, error, critical, illogical)
5. Event code
   - Event type
   - Event ID
6. Event descriptive text

00008, 00001

> 008001

Summary

This lesson has covered:

- OMNI monitoring commands
- Distributed file system
- MML commands
- Alarms and events