



Comverse Knowledge Group

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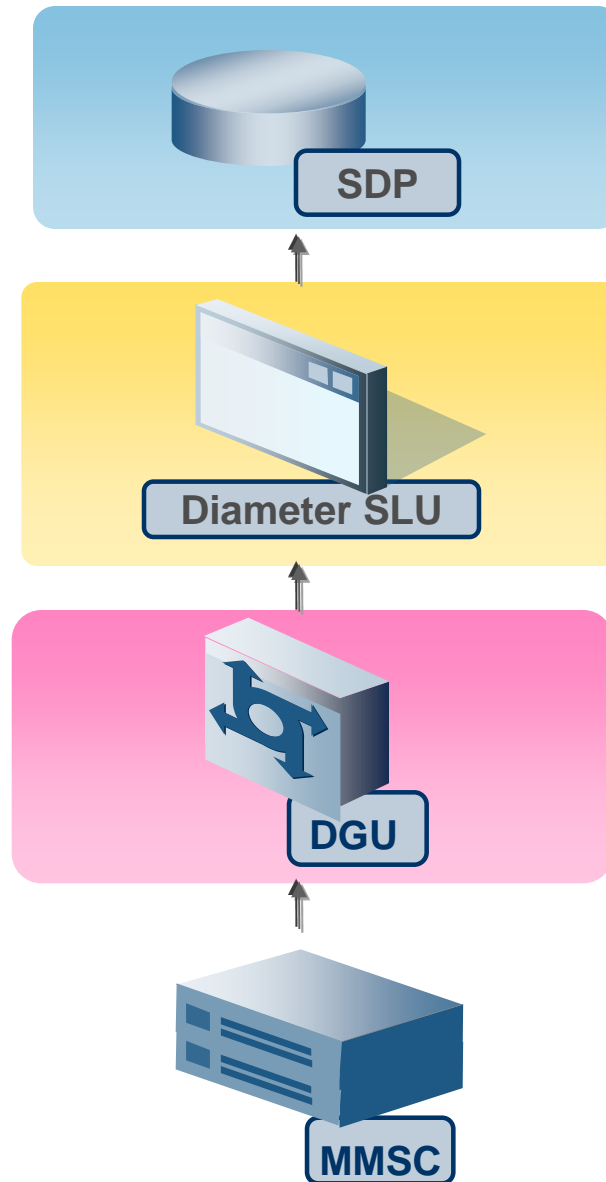
## Diameter Pipe – Monitoring

# Lesson Objectives

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

- Monitor the different components of the Diameter pipe and their connectivity
- Locate the configuration files of each main process

# The Diameter Pipe



# Agenda

Monitoring the OMNI Processes

Monitoring Client-Access

Monitoring Access-Application

Monitoring Application-Data



# Monitoring the OMNI Processes

- On the DGU: Display Designation and Configuration
- One the DSLU: Display Designation and Configuration
- OMNI Booting

# DGU Display Designation and Configuration

Command: **displ-designation:**

```
DGA>>displ-designation;  
MML sent to dgu1.PM:  
DISPL-DESIGNATION;  
  
Designatable Process copies for system 206  
  
Process           Active Copy      Standby Copy  
TAP                dgu1             (none)  
PM                 dgu1             (none)  
PortMon            dgu1             (none)  
OOSVR              dgu1             (none)  
GUISVR             dgu1             (none)  
MCONF              (none)           (none)  
IP_NM              dgu1             (none)  
MEAS_MANAGER        dgu1             (none)  
ALMSVR             dgu1             (none)  
TRMIAP             dgu1             (none)  
CEMEAS             dgu1             (none)
```

DGU Configuration File

```
DGU:dgu1> DFcat tapdes.206  
TAP  
PM  
PortMon  
OOSVR  
GUISVR  
MCONF  
IP_NM  
MEAS_MANAGER  
ALMSVR  
TRMIAP  
CEMEAS
```

# DSLUI Display Designation and Configuration

Command: **displ-designation**

```
OMNI [31 Jan 2008 12:10:42] #.:displ-designation;
Designatable Process copies for system 202

Process           Active Copy      Standby Copy     Idle
TAP               dslu1           (none)
PM               dslu1           (none)
PortMon          dslu1           (none)
OOSVR            dslu1           (none)
GUISVR           dslu1           (none)
SERVOOS          dslu1           (none)
LOG              dslu1           (none)
IP_NM            dslu1           (none)
MEAS_MANAGER     dslu1           (none)
BILL_MANAGER     dslu1           (none)
TCPIP_RP         dslu1           (none)
IP_GUISVR        dslu1           (none)
TREATMENT        dslu1           (none)
ALMSVR           dslu1           (none)
TRMIAP           dslu1           (none)
CEMEAS           dslu1           (none)
TSP              dslu1           (none)
```

DSLUI Configuration File

```
SNCP:dslu1> Orcat tapdes.202
TAP
PM
PortMon
OOSVR
GUISVR
SERVOOS
LOG
IP_NM
MEAS_MANAGER
BILL_MANAGER
TCPIP_RP
IP_GUISVR
TREATMENT
ALMSVR
TRMIAP
CEMEAS
TSP
```

# Finding the DGA Process

Command: **OMD DGA**

```
OGU:dgu1> omd DGA
name=omd19535, path=omd, node=, target=DGA

current time is Thu Jan 31 12:06:49 2008
type '?' for command list
DGA>>
```

How does OMNI know to boot DGA?

```
OGU:dgu1> DFcat cstart.206
CE dgu1
IP IPC
DGA . 1 DEF DEF 206 100 dga
```



# Finding the OCS\_SLF Process

Command: **omd OCS\_SLF**

```
SNCP:dslu1> omd OCS_SLF
name=omd3644, path=omd, node=OCS, target=OCS_SLF

current time is Thu Jan 31 12:20:54 2008
type '?' for command list
OCS_SLF>>
```

How does OMNI know to boot OCS\_SLF?

```
SNCP:dslu1> DFcat cestart.202

.CE dslu1
@IP IPC
SDS_Q1 . 1 DEF DEF 202 101 /home/omni/bin/sds -Q
DP 2
SDS_U1 . 2 DEF DEF 202 101 /home/omni/bin/sds -U
DPId 1 -NumConnectionsPerSDP 2
TSP . 1 DEF DEF 202 101 /home/omni/bin/tsp
OCS_SLF . 0 DEF DEF 202 101 /home/omni/bin/ocs
```

# Monitoring OMNI Booting

Command: **pevt**

```
# init a
# exit
SNCP:slu2> pevt
005003 29-Jan-2008 17:43:54 slu2.RC Info    Full client RC registered [entry=20 pi
d=25543 queue=0x2c30010]
005003 29-Jan-2008 17:43:54 slu2.IP Info    Full client IP registered [entry=14 pi
d=25536 queue=0x2c40011]
005003 29-Jan-2008 17:43:54 slu2.TREATMENT Info    Full client TREATMENT registere
d [entry=23 pid=25546 queue=0x2c50012]
017023 29-Jan-2008 17:43:54 slu2.TAP Info    process TREATMENT is active (initiali
zed) on CE slu2
005003 29-Jan-2008 17:43:54 slu2.IP_NM Info    Full client IP_NM registered [entry
```

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# Monitoring Client–Access

Command: **dgu-display-all;**

```
DGA>>dgu-display-all;  
MML sent to dgul.PM:  
  DGU-DISPLAY-ALL;  
  
DGU Display all:  
  
PeerTable *****  
Peer Entry 0  
  Name           = smsc1  
  Peer ID        = 0  
  Peer FQDN       = smsc1.movilnet.com  
  Peer Port       = 3868  
  Local FQDN      = dgul.comverse.com  
  Local Port      = 3868  
  Transport       = TCP  
  Security        = IPSEC optional  
  Connection Est  = SERVER  
  Activated       = true  
  Status          = DOWN  
Peer Entry 1  
  Name           = smsc2  
  Peer ID        = 1
```

Configuration File: **db.DGU.dga.206**

```
DGU:dgul> cat db.DGU.dga.206|grep smsc  
DGU-CREATE-REALM:REALM-NAME="smc1.movilnet.com";  
DGU-CREATE-REALM:REALM-NAME="smc2.movilnet.com";  
DGU-CREATE-PEER:PEER-NAME="smc1",PEER-FQDN="smc1.movilnet.com"  
com",PEER-PORT="diameter",LOCAL-PORT="diameter",TRANSPORT=TCP,SE
```

# Agenda

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# Monitor Client–Access

Command: **dgu-display-all;**

```
SLUTable *****
SLU Entry 0
  Name           = dslu1
  SLU ID         = 0
  SLU FQDN       = dslu1.comverse
  SLU IP Address = 172.50.102.136
  SLU Port       = 10410
  Hop ID        = 0
  Watchdog Pending = 0
  Watchdog Hop ID = 0
  Watchdog Start  = 1201779332
  Pending Count   = 0
  Pending Count Max = 0
  Pending Count Alarm = 0
  Delay Average   = 0 ms
  Delay Alarm     = INACTIVE
  Activated       = true
  Congested       = false
  State           = CONN_OPEN (2)
SLU Entry 1
```

Configuration File: **db.DGU.dga.206**

```
DGU:dgu1> cat db.DGU.dga.206|grep slu
DGU-CREATE-SLU:SLU-NAME="dslu1",SLU-FQDN="dslu1.comverse
DGU-CREATE-SLU:SLU-NAME="dslu2",SLU-FQDN="dslu2.comverse
DGU-ADD-SLU-SERVICE:SERVICE-NAME="PPS",SLU-NAME="dslu1";
DGU-ADD-SLU-SERVICE:SERVICE-NAME="PPS",SLU-NAME="dslu2";
DGU-ACTIVATE-SLU: SLU-NAME="dslu1";
DGU-ACTIVATE-SLU: SLU-NAME="dslu2";
```

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# Monitor Application – Storage

Command: **show-conn;**

```
SDS_Q1>>SDS_Q1,SHOW-CONN;
```

```
MML sent to SDS_Q1:
```

```
SHOW-CONN;
```

```
ConnThread 3: sncp_user/comverse@sdp1_n1.world: state = 4, lastRC = 0, connInst  
= 0, Qsize = 0
```

```
ConnThread 5: sncp_user/comverse@sdp1_n1.world: state = 4, lastRC = 0, connInst  
= 1, Qsize = 0
```

```
DONE
```



# Summary

This lesson has covered monitoring commands for:

- OMNI processes
- Client-Access
- Access-Application
- Application-Data