

Instructions for taking minimum logs when investigating non-functional BSC

Summary:

This Technical Bulletin aims to provide instructions for taking minimum logs before performing any corrective maintenance tasks on the BSC.

Description:

We often receive cases where the network element is not performing to its capacity. In the course of recovery and maintenance, the logs may be lost due to restarting of some network elements. This prevents complete investigation and final resolution of the problem.

In order to know the real cause, certain logs should be recorded so that timely investigation can be carried out.

Instructions:

The following commands must be executed for taking the necessary logs:

From BSC side:

ZUSI;
ZWQO:CR;
ZWQO:RUN;

ZDDE::"ZGSC";
ZDDE:MCMU,0:"ZGSC";
ZDDE:MCMU,1:"ZGSC";
ZDDE:BCSU,<index>:"ZGSC"; Repeat this command for all the BCSUs

ZNEL;
ZNET;
ZNSI:<network_number>;
ZNHI:<network_number>;
ZOBI:<network_number>;
ZOBL:<network_number>;
ZNFI:<network_number>;

ZEEI;
ZEEL;
ZEEP;
ZEE0:ALL;
ZDCD;
ZCEL:NCGR=<speech_circuit_group_names>;

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ZRCI:GSW; ----->S9
 ZRCI:GSW:NCGR= <bscspecch_circuit_group_names>; ----->S9
 OR
 ZRCI; ----->S10, S10.5
 ZRCI:SEA=3:NCGR=<bscspecch_circuit_group_names>:PRINT=5; ----->S10, S10.5

 ZWTI:P;
 ZDRI;
 ZDTI;
 ZEGO:ALL;
 ZWGO;
 ZWOO; ----->S9
 ZWOI; ----->S10, S10.5
 ZWOS; ----->S10, S10.5

 ZAHO;
 ZEOL;
 ZAHP:::<day before the problem was noticed>;
 ZEOH:::<day before the problem was noticed>;

UTPFIL patch information:

ZDFD:OMU:5AC0002,,N,W,;
 ZDFD:MCMU,<active>:5AC006A,,N,W,;
 ZDFD:MCMU,<active>:5AC006B,,N,W,;

If the problem is with GPRS, additional logs must be taken from BSC:

-PCU log writings from all the BCSUs

From OMU service terminal (ZDDS;) get to the service terminal of PCU

1. Go to the service terminal of the PCU

ZRS:3<BCSU _ind>,x0BF

Or

ZRS:3<BCSU _ind>,x0BE

SW Release	x
S9, S10	PCU TERM ID
S10.5	PCU TERM ID +1

Examples:

S9, S10

Check PCU TERM index:

ZFUI;

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BEARER ID	BEARER NAME	BEARER RATE (KBIT/S)	CHANNEL	EXT PCM	TIME SLOTS	UNIT	TERM	FUNCT
0	SGSN	512	41	1- 8	BCSU-6	9	0	

Access PCU Service Terminal with command:

00-MAN>ZRS:36,90BF

S10.5

Check PCU TERM index:

ZFUI;

BEARER ID	BEARER NAME	BEARER RATE (KBIT/S)	CHANNEL	EXT PCM	TIME SLOTS	UNIT	TERM	FUNCT
0	SGSN1	128	41	1- 2	BCSU-7	4	0	

Access PCU Service Terminal with command:

00-MAN> ZRS:37,50BF

S9 PCU service terminal commands

clog -s

clog -f <family_id>

quit

From this print out family_id can be noted

Eg: clog -f 434 printout logs from the process 434

Logout from PCU service terminal

IS10, S10.5 PCU service terminal commands

clog -s -a

quit

Logout from PCU service terminal

-BTSs information under investigation:

ZFW0:BCSU=0&&8:BTS;

----> BSCE, BSCi, BSC2A/E, BSC2i

ZFW0:BCSU=0&&6:BTS;

----> BSC3i

ZFUI;

ZEQ0:<bts_id>:GPRS;

ZEBP;

ZDPY:BCSU,<bcsu_index of BCSU handling the GB interface>:PCU,<pcu_index>:PID; -----> S10.5

If the problem is with GPRS, additional info about SGSN & MS SW and CD level:

SGSN manufacturer, SW and CD level

MS manufacturer, type and SW level

From MSC side:

ZUSI;

ZAHO;

ZWQ0:CR;

ZEDO:NAME=<bsc name>;

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ZEDB:VER=<bssap_version>;
ZRCI:GSW; ----->M9
ZRCI:GSW:NCGR= <bscspecch_circuit_group_names>; ----->M9
OR
ZRCI; ----->M10, M11
ZRCI:SEA=3:NCGR=<bscspecch_circuit_group_names>:PRINT=5; ----->M10, M11

ZNET;
ZNSI: <network_number>:<spc_bsc>;
ZNHI: <network_number>:<spc_bsc>;
ZNFI: <network_number>:<spc_bsc>;

ZOBI:<network_number>;
ZOBL:<network_number>;
ZDCD;
ZCEL:NCGR==<bscspecch_circuit_group_names>;
ZAHP:::<day before the problem was noticed>;
```