



7302 ISAM
7330 ISAM FTTN
7360 ISAM FX
7356 ISAM FTTB REM
7362 ISAM DF/SF
7363 ISAM MX
7367 ISAM SX/DX

Push-Button Migration Tool

V3.3.98

R E L E A S E N O T E

3HH-04459-0424-FMZZA

Edition: 01

26 April, 2019

Released

Nokia is a registered trademark of Nokia Corporation. Other products and company names mentioned herein may be trademarks or trade names of their respective owners.

The information presented is subject to change without notice. No responsibility is assumed for inaccuracies contained herein.

© 2019 Nokia. All rights reserved.

Contains proprietary/trade secret information which is the property of Nokia and must not be made available to, or copied or used by anyone outside Nokia without its written authorization. Not to be used or disclosed except in accordance with applicable agreements.

Table of Contents

1. About this document	13
2. New about this ToolSet	14
Support of SNMPv2c or SNMPv3	14
Support of ftp and sftp	15
Supported NE families	16
Content of the Release	17
2.1 V3.3.98	17
2.1.1 Error Correction	17
2.2 V3.3.97	17
2.2.1 Error Correction	17
2.3 V3.3.96	17
2.3.1 Error Correction	17
2.4 V3.3.95	17
2.4.1 Error Correction	17
2.5 V3.3.94	18
2.5.1 New Requirement	18
2.6 V3.3.93 - Skipped	18
2.7 V3.3.92	18
2.7.1 Error Correction	18
2.8 V3.3.91	18
2.8.1 New Requirement	18
2.9 V3.3.90	18
2.9.1 New Requirement	18
2.10 V3.3.89	19
2.10.1 New Requirement	19
2.11 V3.3.88 Skipped	19
2.12 V3.3.87	19
2.12.1 New Requirement	19
2.13 V3.3.86	19
2.13.1 Error Correction	19
2.14 V3.3.84 & V3.3.85 Skipped (Delivery error)	19
2.15 V3.3.83	19
2.15.1 Error Correction	19
2.16 V3.3.82	20
2.16.1 Error Correction	20
2.17 V3.3.81	20
2.17.1 Error Correction	20

2.18 V3.3.80	20
2.18.1 New Requirement.....	20
2.19 V3.3.79	20
2.19.1 Error Correction.....	20
2.20 V3.3.78	21
2.20.1 New Requirement.....	21
2.20.2 Error Correction.....	21
2.21 V3.3.77 Skipped (Delivery error).....	21
2.22 V3.3.76	21
2.22.1 New Requirement.....	21
2.23 V3.3.75	21
2.23.1 Error Correction.....	21
2.24 V3.3.74	22
2.24.1 Error Correction.....	22
2.25 V3.3.73	22
2.25.1 Error Correction.....	22
2.25.2 Error Correction.....	22
2.25.3 Error Correction.....	22
2.26 V3.3.72	22
2.26.1 Error Correction.....	22
2.27 V3.3.71	23
2.27.1 Error Correction.....	23
2.27.2 Error Correction.....	23
2.28 V3.3.70	23
2.28.1 Error Correction.....	23
2.28.2 Error Correction.....	23
2.28.3 Error Correction.....	24
2.29 V3.3.69	24
2.29.1 Error Correction.....	24
2.30 V3.3.68	24
2.30.1 Error Correction.....	24
2.30.2 Error Correction.....	24
2.30.3 Error Correction.....	24
2.31 V3.3.67	25
2.31.1 Error Correction.....	25
2.32 V3.3.66	25
2.32.1 Error Correction.....	25
2.33 V3.3.65	25
2.33.1 New Requirement.....	25
2.34 V3.3.64	25
2.34.1 Error Correction.....	25
2.35 V3.3.63	25
2.35.1 Error Correction.....	25
2.35.2 Error Correction.....	26
2.36 V3.3.62	26
2.36.1 New Requirement.....	26
2.37 V3.3.61	26
2.37.1 New Requirement.....	26
2.38 V3.3.60	26
2.38.1 Error Correction.....	26

2.38.2 Error Correction	26
2.39 3.3.59	27
2.39.1 Error Correction	27
2.39.2 Error Correction	27
2.40 V3.3.58	27
2.40.1 New Requirement	27
2.41 V3.3.57	27
2.41.1 New Requirement	27
2.42 V3.3.56	27
2.42.1 New Requirement	27
2.42.2 Error Correction	28
2.43 V3.3.55	28
2.43.1 Error Correction	28
2.44 V3.3.54	28
2.44.1 Error Correction	28
2.45 V3.3.53	28
2.45.1 Error Correction	28
2.46 V3.3.52 Skipped	28
2.47 V3.3.51	29
2.47.1 New Requirement	29
2.48 V3.3.50	29
2.48.1 Error Correction	29
2.49 V3.3.49	29
2.49.1 Error Correction	29
2.50 V3.3.48-Skipped	29
2.51 V3.3.47	29
2.51.1 Error Correction	29
2.52 V3.3.46	30
2.52.1 Error Correction	30
2.53 V3.3.45	30
2.53.1 New Requirement	30
2.54 V3.3.44	30
2.54.1 New Requirement	30
2.55 V3.3.43	30
2.55.1 New Requirement	30
2.56 V3.3.42	30
2.56.1 Error Correction	31
2.56.2 New Requirement	31
2.57 V3.3.41	31
2.57.1 New Requirement	31
2.58 V3.3.40	31
2.58.1 New Requirement	32
2.59 V3.3.39	32
2.59.1 New Requirement	32
2.60 V3.3.38	32
2.60.1 New Requirement	32
2.61 V3.3.37	32
2.61.1 New Requirement	32

2.62 V3.3.36	32
2.62.1 New Requirement.....	32
2.63 V3.3.35	33
2.63.1 Error Correction.....	33
2.63.2 New Requirement.....	33
2.64 V3.3.34	33
2.64.1 New Requirement.....	33
2.65 V3.3.32 & V3.3.33 (skipped)	33
2.66 V3.3.31	33
2.66.1 Error Correction.....	33
2.67 V3.3.30	34
2.67.1 New Requirement.....	34
2.68 V3.3.29	34
2.68.1 Error Correction.....	34
2.69 V3.3.28	34
2.69.1 Error Correction.....	35
2.70 V3.3.27 (skipped)	35
2.71 V3.3.26	35
2.71.1 Error Correction.....	35
2.72 V3.3.25	35
2.72.1 Error Correction.....	35
2.72.2 Error Correction.....	35
2.73 V3.3.24	36
2.73.1 Error Correction.....	36
2.74 V3.3.23	36
2.74.1 New Requirement.....	36
2.75 V3.3.22	36
2.75.1 Error Correction.....	36
2.76 V3.3.21	36
2.76.1 New Requirement.....	36
2.77 V3.3.20	37
2.77.1 Error corrections.....	37
2.78 V3.3.19	37
2.78.1 Error corrections.....	37
2.78.2 Error corrections.....	37
2.79 V3.3.18	37
2.79.1 Error corrections.....	37
2.80 V3.3.17	38
2.80.1 Error corrections.....	38
2.81 V3.3.16	38
2.81.1 Error corrections.....	38
2.81.2 Error corrections.....	38
2.82 V3.3.15	38
2.82.1 New requirement	38
2.83 V3.3.14	39
2.83.1 New requirement	39
2.84 V3.3.13 skipped	39
2.85 V3.3.12	39

2.85.1 Error corrections	39
2.86 V3.3.11	39
2.86.1 Error corrections	39
2.87 V3.3.10	40
2.87.1 Error corrections	40
2.88 V3.3.9	40
2.88.1 New requirement	40
2.89 V3.3.8	40
2.89.1 New requirement	40
2.90 V3.3.7	41
2.90.1 New requirement	41
2.91 V3.3.6	41
2.91.1 New requirement	41
2.92 V3.3.5	41
2.92.1 Error corrections	41
2.93 V3.3.4	41
2.93.1 New requirement	41
2.94 V3.3.3	42
2.94.1 Error corrections	42
2.94.2 Error corrections	42
2.95 V3.3.2	42
2.95.1 New requirement	42
2.95.2 New requirement	42
2.96 V3.3.1	43
2.96.1 Error corrections	43
2.96.2 Error corrections	43
2.96.3 Error corrections	43
2.96.4 Error corrections	43
2.96.5 Error corrections	44
2.96.6 Error corrections	44
2.97 V3.3.0	44
2.97.1 Error corrections	44
2.98 V3.2.99	44
2.98.1 New requirement	44
2.99 V3.2.98	45
2.99.1 Error corrections	45
2.99.2 Error corrections	45
2.100 V3.2.97	45
2.100.1 Error corrections	45
2.100.2 Error corrections	45
2.101 V3.2.96	46
2.101.1 Error corrections	46
2.101.2 New requirement	46
2.102 V3.2.95	46
2.102.1 Error corrections	46
2.102.2 Error corrections	46
2.103 V3.2.94	47
2.103.1 Error corrections	47
2.103.2 Error corrections	47
2.104 V3.2.93	47
2.104.1 New requirement	47

2.105	V3.2.92	47
2.105.1	Error corrections	47
2.106	V3.2.91 skipped	48
2.107	V3.2.90	48
2.107.1	New requirement	48
2.108	V3.2.89	48
2.108.1	New requirement	48
2.109	V3.2.88	48
2.109.1	New requirement	48
2.110	V3.2.87	48
2.110.1	Error corrections	48
2.111	V3.2.86	49
2.111.1	Error corrections	49
2.112	V3.2.84 skipped	49
2.113	V3.2.83	49
2.113.1	New requirement	49
2.114	V3.2.82	49
2.114.1	Error corrections	49
2.114.2	Error corrections	49
2.114.3	Error corrections	50
2.115	V3.2.81	50
1.1.1	Error corrections	50
2.116	V3.2.80	50
2.116.1	New requirement	50
2.117	V3.2.79	50
2.117.1	New requirement	50
2.118	V3.2.78	51
2.118.1	New requirement	51
2.119	V3.2.77	51
2.119.1	Error corrections	51
2.120	V3.2.76	51
2.120.1	Error corrections	51
2.120.2	Error corrections	51
2.120.3	Error corrections	51
2.121	V3.2.75	52
2.121.1	New requirement	52
2.122	V3.2.74	52
2.122.1	Error corrections	52
2.122.2	Error corrections	52
2.122.3	Error corrections	52
2.122.4	Error corrections	53
2.123	V3.2.73	53
2.123.1	Error corrections	53
2.123.2	Error corrections	53
2.123.3	Error corrections	53
2.124	V3.2.72	54
2.124.1	Error corrections	54
2.125	V3.2.71 skipped	54
2.126	V3.2.70	54

2.126.1	New requirement	54
2.126.2	New requirement	54
2.127	V3.2.69	54
2.127.1	Error corrections	54
2.128	V3.2.68	55
2.128.1	Error corrections	55
2.128.2	Error corrections	55
2.128.3	Error corrections	55
2.129	V3.2.67	55
2.129.1	Error corrections	55
2.129.2	Error corrections	55
2.129.3	Error corrections	56
2.129.4	Error corrections	56
2.130	V3.2.66	56
2.130.1	Error corrections	56
2.131	V3.2.65	56
2.131.1	Error corrections	56
2.131.2	Error corrections	56
2.131.3	Error corrections	57
2.132	V3.2.64	57
2.132.1	Error corrections	57
2.133	V3.2.63	57
2.133.1	Error corrections	57
2.134	V3.2.62	57
2.134.1	Error corrections	57
2.134.2	Error corrections	57
2.134.3	Error corrections	58
2.134.4	New requirement	58
2.134.5	Error corrections	58
2.135	V3.2.61	58
2.135.1	Error corrections	58
2.135.2	Error corrections	58
2.136	V3.2.60	59
2.136.1	New requirement	59
2.136.2	Error corrections	59
2.136.3	Error corrections	59
2.137	V3.2.59	59
2.137.1	Error corrections	59
2.137.2	Error corrections	60
2.138	V3.2.58	60
2.138.1	Error corrections	60
2.139	V3.2.57	60
2.139.1	Error corrections	60
2.140	V3.2.56	60
2.140.1	New requirement	60
2.141	V3.2.55	61
2.141.1	Error corrections	61
2.141.2	Error corrections	61
2.142	V3.2.54	61
2.142.1	Error corrections	61
2.142.2	Error corrections	61
2.142.3	Error corrections	61

2.143	V3.2.53 (skipped).....	62
2.144	V3.2.52	62
2.144.1	New requirement	62
2.145	V3.2.51	62
2.145.1	Error corrections.....	62
2.146	V3.2.50	62
2.146.1	Error corrections.....	62
2.146.2	Error corrections.....	62
2.147	V3.2.49 (skipped).....	63
2.148	V3.2.48	63
2.148.1	Error corrections.....	63
2.149	V3.2.47	63
2.149.1	Error corrections.....	63
2.149.2	Error corrections.....	63
2.149.3	Error corrections.....	64
2.150	V3.2.46	64
2.150.1	Error corrections.....	64
2.151	V3.2.45	64
2.151.1	Error corrections.....	64
2.152	V3.2.44	64
2.152.1	New requirement	64
2.153	V3.2.43	65
2.153.1	New requirement	65
2.154	V3.2.42	65
2.154.1	New requirement	65
2.155	V3.2.41	65
2.155.1	New requirement	65
2.156	V3.2.40	65
2.156.1	New requirement	65
2.157	V3.2.40	66
2.157.1	Error correction.....	66
2.157.2	Error correction.....	66
2.158	V3.2.38	66
2.158.1	New requirement	66
2.159	V3.2.37	66
2.159.1	Error corrections.....	66
2.160	V3.2.36	67
2.160.1	Error corrections.....	67
2.161	V3.2.35	67
2.161.1	Error corrections.....	67
2.161.2	Error corrections.....	67
2.161.3	Error corrections.....	68
2.162	V3.2.34	68
2.162.1	Error corrections.....	68
2.163	V3.2.33	68
2.163.1	Error corrections.....	68
2.163.2	Error corrections.....	69
2.163.3	Error corrections.....	69
2.163.4	Error corrections.....	69

2.164	V3.2.32	69
2.164.1	Error corrections	69
2.165	V3.2.31	70
2.165.1	Error corrections	70
2.165.2	Error corrections	70
2.166	V3.2.30	70
2.166.1	Error corrections	70
2.166.2	Error corrections	71
2.167	V3.2.29	71
2.167.1	Error corrections	71
2.168	V3.2.28	71
2.168.1	Error corrections	71
2.169	V3.2.27	72
2.169.1	Error corrections	72
2.170	V3.2.26	72
2.170.1	Error corrections	72
2.171	V3.2.25	72
2.171.1	Error corrections	72
2.172	V3.2.24	73
2.172.1	Error corrections	73
2.173	V3.2.23	73
2.173.1	Error corrections	73
2.174	V3.2.22	73
2.174.1	Error corrections	73
2.175	V3.2.21(skipped).....	73
2.176	V3.2.20	74
2.176.1	Error corrections	74
2.176.2	Error corrections	74
2.177	V3.2.19	75
2.177.1	Error corrections	75
2.178	V3.2.18	75
2.178.1	Error corrections	75
2.179	V3.2.17	75
2.179.1	Error corrections	75
2.180	V3.2.16	76
2.180.1	Error corrections	76
2.181	V3.2.15	76
2.181.1	Error corrections	76
2.182	V3.2.14	76
2.182.1	Error corrections	76
2.183	V3.2.13	76
2.183.1	Error corrections	76
2.184	V3.2.12	78
2.184.1	New Requirement:.....	78
2.184.2	Error corrections	78
2.185	V3.2.11	78
2.185.1	Error corrections	78
2.186	V3.2.10	79
2.186.1	New Requirement:.....	79

2.187	V3.2.9	79
2.187.1	Error corrections	79
2.188	V3.2.8	80
2.188.1	Error corrections	80
2.189	V3.2.7	80
2.189.1	Error corrections	80
2.190	V3.2.6(skipped)	81
2.191	V3.2.5	81
2.191.1	New requirement	81
2.192	V3.2.4(skipped)	81
2.193	V3.2.3	81
2.193.1	Error corrections	81
2.194	V3.2.2	81
2.194.1	Error corrections	81
3.	Prerequisites	83
4.	Contents of the PBMT package	84
4.1	Delivery Information	84
5.	Installation Guide	90
6.	Documentation	91

1. About this document

This document provides information on content of release V3.3.98 of the Push-Button Migration Tool and contains the changes introduced versus V3.3.97.

Please read this entire document before installing this release.

This release superseded the previous package and is functionally backwards compatible.

2. New about this ToolSet

Starting from V3.0.1 following feature has been incorporated in the toolset:

- ◆ TL1 support for ONT related operations

Starting from V2.1 some new features have been incorporated in the toolset:

- ◆ Support of SSH for CLI
- ◆ Support of SNMPv2c and SNMPv3
- ◆ Support of ftp and sftp
- ◆ Support of NE families

Support of SSH

PBMT tools can use SSH for CLI sessions when SSH is the only communication channel configured in the ISAM. By default both CLI and TL-1 are enabled via both the secured and non-secured communication channels. Communication via the non-secure channels can be disabled by means of the appropriate CLI or LT-1 commands. The username and password defined for the CLI sessions still apply. However in order to work in a secured way it is recommended to add the ISAMs as known nodes to the system's configuration where PBMT will be executed (the nodes end up in the `/etc/ssh/known_hosts` file). By doing so an SSH session to a node will never be a session to a node not known to the system and hence the connection will be accepted, if not the connection will be refused.

Note: from V2.1.17, PBMT scripts will autonomously determine whether CLI over SSH or CLI over Telnet is available. Depending on the access possibilities PBMT will either use SSH or Telnet:

- No CLI over Telnet: PBMT scripts will use SSH for CLI communication
- CLI over Telnet and SSH: PBMT scripts will use Telnet for CLI communication
- TL1 over UDP: PBMT scripts will use UDP communication to port 13001 on the ISAM.
- TL1 over SSH: PBMT scripts will use SSH for TL-1 communication. Communication established using port 1022 on the ISAM.
- No TL1: all TL-1 access will be skipped.

Configuring SSH is described in DLP-170 of the Operations and Maintenance using CLI customer documentation.

Support of SNMPv2c or SNMPv3

SNMPv2c and SNMPv3 support is provided in this new version of the toolset. SNMPv2c can be enabled by providing the `--v2` option (the SNMPv1 community string still applies for SNMPv2c).

SNMPv3 is enabled by providing the --v3auth for SNMPv3 authentication and the optional privacy parameters provided using the --v3priv command switch (or by providing the requested information when running Config.pl to configure the PBMT toolset).

--v3auth requires 3 option-fields separated by a ':' character:

- A username
- A password (at least 8 characters are required)
- Authentication protocol (SHA or MD5. MD5 is default)

--v3priv requires 2 option-fields separated by a ':' character:

- Privacy protocol (DES, 3DES or AES, DES is default)
- A password

Support of ftp and sftp

The PBMT tools now determines the protocol used to transfer files by checking the settings in the ISAM itself. Depending on this setting files are stored and retrieved from different locations:

- tftp: files are stored and retrieved relative to a "tftp-top" directory setting.
- ftp and sftp: files are stored and retrieved either relative to the user performing the file upload (configured in the ISAM when configuring the file transfer protocol (see DLP-203 of the Operations and Maintenance using CLI of the customer documentation)).

Because of this specifying the software package needs some attention and PBMT looks for the OSWP using the following search mechanism:

- First we check whether the OSWP as specified via the --swp parameter is existing. If existing PBMT assumes that the node will be using ftp or sftp.
- If the OSWP is not found it next probes the home directory of the user running PBMT. If existing PBMT assumes that the node will be using ftp or sftp.
- If the OSWP is still not found we concatenate the OSWP file name with the TFTP top-directory setting and check whether the OSWP can be found. If existing we assume that the node will be using tftp as file transfer mechanism
- If the OSWP is still not found an error is generated.

The assumed file transfer protocol is next compared to what is configured in the node itself. An error is generated when a mismatch is detected between the assumed setting by PBMT and the configured settings in the node.

One important remark about the OSWP and the file transfer protocol being used.

The OSWP as provided by Nokia in the delivery is made assuming that tftp is used as file transfer protocol. If ftp or sftp will be used the ASAM-CORE setting needs to be adjusted in such a way that the file can be found at the specified location when the user configured for the file transfer protocol initiates the transfer. In case the specification is not correct, the file transfer will end in a failure stating that a file could not be found.

For more information about the PBMT toolset please refer to the Software Upgrade and Migration Application Procedures as provided in the customer documentation.

Supported NE families

Starting from V2.1 a set of NE families is supported by the PBMT tools:

- The ISAM family (up to R3.7)
- The ETSI 7302 ISAM family (starting from R4.0) consisting of FD-only equipment (includes 7330 equipment practice).
- The ANSI 7302 ISAM family (starting from R4.0) consisting of XD-only equipment (includes 7330 equipment practice).
- The common ETSI/ANSI 7302 ISAM family (starting from R4.0) and currently only includes one NT type: the AGNT-A N.
- The ETSI 7302 ISAM variant for NTT (starting from R4.0). The SW package identifier is 'AC' as compared to 'AA' for the regular ETSI 7302.
- The HiCap 7302 ISAM family (starting from R3.7.10)
- The ISAM 7354RU family
- The 1540Litespan family (support for NT GEB3-B)
- The ISAM 7360 family (starting from R4.2)
- The ISAM 7367 family (starting from R4.6.01)
- The ISAM 7363 family (starting from R5.0.00a)
- The ISAM 7362 family (starting from R5.5)

Each NE family has a set of associated directories for storing the offline migration tools:

- ./tools/NT and ./tools/Lanx for the ISAM family and ETSI 7302 ISAM family
- ./tools/NT_ANSI and ./tools/Lanx_ANSI for the ANSI 7302 ISAM family
- ./tools/NT_HICAP for the 7302 ISAM HiCap family
- ./tools/7354RU for the ISAM 7354RU family.
- ./tools/NT_LS and ./tools/Lanx_LS for the 1540Litespan NE family.
- ./tools/IVPS for storing the IVPS toolchain.
- ONT Release Mapping file present as ./tools/ONT_Release_Mapping.txt

Content of the Release

2.1 V3.3.98

2.1.1 Error Correction

- ▶ **ALU02569714 Rollback script fails for 7363 on PBMT 3.3.97 while it should be supported from R6.1 onwards**

Problem: When Rollback from R6.1 to R6.0.01f is attempted on 7363 node the rollback script fails with incompatible NT error since the RANI-A NTIO card was plugged into the NT-B slot .

Solution: The rollback script was expecting a redundant NT in NT-B slot for 7363 node and exiting with error when incompatible NTs was present. Since 7363 does not support redundancy we have removed the redundant board check for 7363 nodes.

2.2 V3.3.97

2.2.1 Error Correction

- ▶ **ALU02562661 Problems with PBMT in R5.5.02f package**

Problem: When the swdl.pl and migrate.pl tools is used along with the option --seplug and --session together with a --hosts file, the script fails with the error in creation of separate log file because the script tries to create log file in same name for different nodes in each session.

Solution: The logfile name is created with session and node number so that separate file is created for each node.

2.3 V3.3.96

2.3.1 Error Correction

- ▶ **ALU02544261 invoke a DTAG migration from 52.699 to 61.069: NEW alarms**

Problem: Although no new alarms are present, statusCheckCmp.pl does claim that new alarms are present. This is due to the alarm detail stored to the status file in the random order which leads to same alarm being stored in different format in the status file before and after migration

Solution: The order in which the alarm details for each alarm stored in the status file will follow alphabetical order so that the alarm before and after migration are matched properly.

2.4 V3.3.95

2.4.1 Error Correction

- ▶ **ALU02547314 Status check compare script does not validate 802.1x ports**

Problem: Status Check compare script does not compare the actual number of authorized ports before and after migration. It always shows zero ports authorized irrespective of ports actual authorization status. As a result, if there are ports authorized before migration and are moved to unauthorized state,

status check compare script still would pass which should not be the case. This is observed in SX-48U.

Solution: The regular expression used to read the authorization state from status pre/postOperCheck log file is modified to read the state properly in all statuscheckcmp libraries.

2.5 V3.3.94

2.5.1 New Requirement

► ALU02551519 In PBMT, Require to support the new SHA2 authentication protocols from R61

Problem: SHA2 algorithm support in ISAM is given via RCR ALU02365023. PBMT support for SHA2 algorithm for snmpv3 should be provided.

Solution: SHA2 authentication protocols (SHA256 and SHA512) has introduced in PBMT for SNMP v3 communication with ISAM

2.6 V3.3.93 - Skipped

2.7 V3.3.92

2.7.1 Error Correction

► ALU02550344 Migration result is showing as failed

Problem: migrate.pl shows the results as failure when oswp is in act-via-standby state for more than one hour even though the migration is successful

Solution: The timeout value for waiting in act-via-standby is increased and precondition for ISSU is added to the script so that the migration fails if a protected port or LT is down before migration

► ALU02552653 NT-A serial number info wrong in Migration log.

Problem: Serial number printed in the detailed log file was printing nt-b serial number in place of nt-a serial number.

Solution: The values printed in the log file is corrected to print the correct serial number.

2.8 V3.3.91

2.8.1 New Requirement

► ALU02547907 PBMT support for Lanx Migration tool 1.86

Problem: PBMT support for Lanx Migration tool 1.86

Solution: Code changes done to use Lanx Migration tool 1.86

2.9 V3.3.90

2.9.1 New Requirement

► ALU02546056 FANT-H support in PBMT

Problem: FANT-H board support needs to be added to PBMT

Solution: FANT-H board is added to pbmt capability model.

2.10 V3.3.89

2.10.1 New Requirement

► ALU02540454 IVPS Changes, CORE-1 Migration Changes

Problem: Ivps profile increased from 8 to 11. CORE-1 migration from fast-reroute facility to fast-reroute one-to-one from r58. Rollback support for 7363,7367.

Solution: Code changes is done to migration and include ivps 11 profile during voice migration. Changes done to migrate core-1 configs from fast-reroute facility to fast-reroute one-to-one (if configured). Added support for 7363 and 7367 setups to rollback.pl script.

2.11 V3.3.88 Skipped

2.12 V3.3.87

2.12.1 New Requirement

► ALU02535137 Remove DB-Version and release.build no number mapping in PBMT Application

Problem: DB-version is mapped to build no. range for each release internally in pbmt which is used to determine the possibility of migration/upgrade for the builds used. This required a regular update in pbmt every time a db version is introduced or the build number exceeds the determined range.

Solution: Build number limitation in the script is removed and OFLMT configuration file dbtool.cfg is now used to read DB-version and allowed migration paths to determine the possibility of migration.

2.13 V3.3.86

2.13.1 Error Correction

► ALU02532829 PBMT statuscheck alarm rtrv via cli to be added for all platforms

Problem: Status check changes done for FD/FX to be added to MX/SX libraries. Warnings observed in status check compare script

Solution: Status check changes to support alarms via CLI added for MX/SX libraries and warnings resolved in status check compare script

2.14 V3.3.84 & V3.3.85 Skipped (Delivery error)

2.15 V3.3.83

2.15.1 Error Correction

► ALU02510303 FT Issues observed in Migration Via CLI RCR

Problem: When ONT download/activate script is executed for not connected ONT the script skips these ONT's. Buffer size exceeds when issue is seen when

ontDownloadandActivate script is executed for ISAM which have more than 2000 ONT's configured.

Solution: ONT Download activation script is corrected to handle un-connected ONT. CLI buffer modified to higher value and Telnet Timeout increased to solve the Buffer size issue for large number of ONT.

2.16 V3.3.82

2.16.1 Error Correction

► ALU02510303 FT Issues observed in Migration Via CLI RCR

Problem: Status check scripts does not store detailed alarm log in status file. Stage ONT script assumes file transfer protocol as sftp when CLI credentials are passed in command line irrespective of the configuration in ISAM.

Solution: Status Check script updated to store detailed alarms in pre/post status file. Staging script updated to process credentials correctly when file transfer is SFTP

2.17 V3.3.81

2.17.1 Error Correction

► ALU02520102 Warning message while performing precheck for NRNT-A migration from 5402 to 6001

Problem: Precheck shows some warning during precheck of NRNT-A

Solution: While processing the NT/LT slots, the calculation for validating multicast calculation was rectified to resolve this issue.

2.18 V3.3.80

2.18.1 New Requirement

► ALU02509227 Customer's umask value to be used in PBMT to create files and directory

Problem: System umask value should not be overridden and Need not provide write permission for the files and directory created by PBMT

Solution: Introduced a new field UMASK_OVERRIDE to set Y/N to override umask settings to 0 and perform chmod operations for the files and directories created by PBMT. When we set N, Then it will not override umask setting and will not perform chmod operations.

2.19 V3.3.79

2.19.1 Error Correction

► ALU02520102 [MIGRATION] swdl.pl failed on downloading build 53.172 from base build 5402.604

Problem: SW Download fails for RANT-A from build 53.172 to 5402.604. Issue occur only for minimized SW with different target path

Solution: Issue occur only for the boards ECNT-C, NANT-A, AGNT-A. These boards fall under more than one family. We use SW variant from OSWP/SWP file, To identify proper family. Minimized SW with different target path has relative path and SW variant position will vary. Passing the filename alone solve the problem.

2.20 V3.3.78

2.20.1 New Requirement

► ALU02518082 PBMT support for R6.1

Problem: ISR61 release need to be supported in PBMT

Solution: Required code changes done in PBMT to support ISR61

2.20.2 Error Correction

► ALU02509477 Migration fails with operator id set to 265 in MX platforms.

Problem: When operator id 265 is configured in ISAM, PBMT script is unable to activate oswp via snmpset which causes the pbmt script to fails. For this operator id, snmpset for activating oswp failed.

Solution: When transaction id is acquired via cli, activation is also triggered via cli instead of snmp since this operator id does not allow snmp set.

2.21 V3.3.77 Skipped (Delivery error)

2.22 V3.3.76

2.22.1 New Requirement

► ALU02508990 ONT Migration using CLI

Problem: The requirement is that the operator will disable the TL1 port and execute the PBMT script and the migration should be successful. PBMT scripts stageont.pl, ontDownloadandActivate.pl and statuscheck.pl scripts were using TL1 connection.

Solution: stageont.pl, ontDownloadandActivate.pl and statuscheck.pl scripts are modified to perform their functions via CLI when TL1 is disabled in the node.

2.23 V3.3.75

2.23.1 Error Correction

► ALU02509477 Migration fails with operator id set to 265 in MX platforms.

Problem: When operator id 265 is configured in ISAM, PBMT script is unable to set the configuration-lock which causes the pbmt script to fails. For this operator id, snmpset for configuration-lock doesn't work.

Solution: Combination of CLI and SNMP set is used to acquire transaction-lock when particular operator id is configured.

2.24 V3.3.74

2.24.1 Error Correction

► ALU02498528 AutoSwitch error file reporting through PBMT migrate.pl

Problem: This PBMT changes is due to support RCR ALU02388869. If error record found in AutoSwitch module, then a separate error file autoswitch_error.log is generated.

Solution: PBMT logs the error in the detailed log file when autoswitch_error.log file is generated during offline migration.

2.25 V3.3.73

2.25.1 Error Correction

► ALU02494119 [NRNT-A/FD-REM]:Retrieving LT configuration failed on doing precheck for path 5701.324 to 60.080

Problem: precheck.pl script fails for NRNT-A connected to FD-REM with '1895: Failed to retrieve equipment data': Retrieving LT configuration failed: info configure equipment slot flat has incomplete response with 'write error: filehandle isn't open' error.

Solution: Issue is caused while retrieving MacAddressUnicase value from the ISAM. The Value is retrieved and processed properly for NRNT-A platform.

2.25.2 Error Correction

► ALU02485782 Input tar creation failure in ISAM v6.0

Problem: As part of changes made in Makefile, “./lib/version.pm” is changed to “lib/version.pm” which caused error while creating Input tar file for AMS.

Solution: Changed ‘lib/version.pm’ to ‘./lib/version.pm’ in Makefile which resolved the issue.

2.25.3 Error Correction

► ALU02494467 PBMT support for build no. greater than 700 in R5302 stream

Problem: R5302 stream build number goes beyond 700 series which is not supported by pbmt. So pbmt script could not be executed for 5302c builds.

Solution: Support for 700 series is added for R53xx in Capability.

2.26 V3.3.72

2.26.1 Error Correction

► ALU02492899 Software download failed because of disk full issue but PBMT tool reporting success

Problem: swdl.pl script is executed for NANT-A platform, the script exit with success message but the download failed in ISAM due to disk full issue.

Solution: The available state of the new SW is validated after download is completed.

2.27 V3.3.71

2.27.1 Error Correction

- ▶ **ALU02489952 RANTA : Migration to 60.070 fails with Use of uninitialized value in concatenation (.) or string**

Problem: migrate.pl script fails for MX platform because the script was not checking to get the existing transaction value from the setup before setting new one.

Solution: Existing transaction value is checked before setting new value.

2.27.2 Error Correction

- ▶ **ALU02487424 Many warning are coming in migration domain**

Problem: swdl.pl generates lot of warning messages in NRNT-I platform. The warnings are observed when the commands executed by script fails to execute in ISAM, but the script still expects a response.

Solution: CLI command execution is handled to check for the valid response and handled the failed command execution case.

2.28 V3.3.70

2.28.1 Error Correction

- ▶ **ALU02489155 [Migration] On downloading a build through swdl.pl "List SW disk files failed" error reported**

Problem: swdl.pl script fails with error "show software-mngt swp-disk-file | match exact:L6GQZA58.146 has incomplete response" since the cli command only send the particular match. The script expects End of execution string to start processing the output, but it was not received in this case.

Solution: This case (|match exact:) is handled differently than the other send command which resolves the issue.

2.28.2 Error Correction

- ▶ **ALU02489022 Migrate.pl script tries to login to the ISAM before reboot completes and reports Failure.**

Problem: In migrate.pl script, the script does not wait for ISAM to reboot after activating new SW. The script fails with error "Targeted SW is not activated, System rolled backed to old one".

Solution: CLI connection was still available after activating the new SW for some time which caused the issue. Script check for the OSWP active state and waits if it is in act-act-nt state.

2.28.3 Error Correction

► **ALU02488253 swdl.pl fails for RANT-B setup alone**

Problem: Swdl.pl for Rant-b board fails when the active release is older than R60.

Solution: Changes made for RANT-C support in pbmt caused failure for RANT-B board. Capability is modified to resolve the issue.

2.29 V3.3.69

2.29.1 Error Correction

► **ALU02487343 [Migration] Migrate SW Build fails with error "Use of uninitialized value" in multiple tasks**

Problem: Migrate.pl script fails after activating the new SW due to problem in CLI connection.

Solution: CLI connection is closed after activating the new SW and a new connection is created when ISAM boots up.

2.30 V3.3.68

2.30.1 Error Correction

► **ALU02486035 StatuscheckCmp fails when successful login alarm is seen in post statuscheck for script login.**

Problem: In MX and SX, the successful login alarm is not observed in release <R5.8 and successful login alarm is seen in release R60. This caused statusCheckCmp.pl to fail in SX and MX.

Solution: Successful login alarms are ignored for MX and SX in R60 and later.

2.30.2 Error Correction

► **ALU02485930 BTYPE accepts junk value in PreCheck whereas all others expect SNMP; Error in code line num.575**

Problem: precheck.pl script accepts junk values for -btype option while the only accepted values should be SNMP or YANG

Solution: --btype value passed to the script is validated in precheck.pl

2.30.3 Error Correction

► **ALU02483929 Release stream 5700 is not known for migration to ISR60**

Problem: Migration from release older than 57 failed due to active NT type not being set for NANT-A board

Solution: Retrieving active NT type during migration solved the issue

2.31 V3.3.67

2.31.1 Error Correction

- ▶ **ALU02483723 [Migration] Migrate SW Build fails with error "18: **FATAL** Activation of the new OSWP failed"**

Problem: Migrate.pl fails for NANT-A platform due to failure to activate the new SW caused by issue with retrieving active NT

Solution: Retrieving active NT correctly solved the issue.

2.32 V3.3.66

2.32.1 Error Correction

- ▶ **ALU02483928 60.057: MX: Build download fails**

Problem: "show equipment protection-element" is checked when executing swdl.pl for MX. Mx does not have content for that command which resulted in failure.

Solution: This command is not executed for boards which supports 7363 and 7367

2.33 V3.3.65

2.33.1 New Requirement

- ▶ **ALU02474195 PBMT support for 7367 ANSI VSRM-B**

Problem: PBMT needs to support new board SRNT-N

Solution: Support for the new board is added in PBMT

2.34 V3.3.64

2.34.1 Error Correction

- ▶ **ALU02481104 Download SW Build fails with error "Use of uninitialized value in hash element"**

Problem: swdl.pl failed for NANT-A board with error "Use of uninitialized value in hash element". This is due to failure to check the active nt after getting nt details

Solution: Access/set of active NT after fetching nt detail solved the issue.

2.35 V3.3.63

2.35.1 Error Correction

- ▶ **ALU02473689 swdl.pl with reduce option is not working for 60 builds**

Problem: swdl.pl with reduce option fails when the active build is 60. This is due the MIB version supported by pbmt was not updated.

Solution: MIB version supported by pbmt is updated to support R6X releases.

2.35.2 Error Correction

► ALU02481108 [SX-48V] Precheck fails while doing migration

Problem: PreCheck.pl scripts fails for SX platform due to changes made for ALU02460863. SNMP bulk request does not contain value for nt-b in sx platform.

Solution: Snmpget is used to retrieve the NT board instead of bulk request

2.36 V3.3.62

2.36.1 New Requirement

► ALU02471697 Betterment of ErrorCode reporting in PBMT Application

Problem: All scripts in pbmt have their separate set of error code which result in multiple entry for same error message. The idea is to use the same error code and message in all scripts.

Solution: We have re-engineered the ErrorCode library in PBMT for betterment of error details report in PBMT application,
Use same error code for a reporting message across application.

2.37 V3.3.61

2.37.1 New Requirement

► ALU02460863 Extended Log Functionality in PBMT

Problem: Improvement for the logging functionality in PBMT

Solution: Implemented all new separate Library for Logging in PBMT, It contains function to file processing and message processing related to Log.

2.38 V3.3.60

2.38.1 Error Correction

► ALU02471106 PBMT warning error when retrieving ont sw dld status

Problem: Some warnings observed while executing ONT software download script.

Solution: Issue has fixed through adding DPU software release number

2.38.2 Error Correction

► ALU02470414 System Busy State (SARB) timeout (s) is not working as expected, it is always taking the timeout

Problem: When we change system busy retry wait timeout in param.cfg, It is impact in the execution.

Solution: Same configuration key used in param.cfg has used in script to refer system busy retry timeout value

2.39 3.3.59

2.39.1 Error Correction

► ALU02466906 No. of retries when busy is observer for TL1 command in PBMT

Problem: Application is not retrying 5 times, When system's TL1 communication found system is busy.

Solution: It retry for 10 times when system is busy found through TL1 communication. Now it is fixed to retry for 5 times as per design

2.39.2 Error Correction

► ALU02467241 Minimize the SW Build fails in 5801.338 with error Use of uninitialized value in concatenation (.)

Problem: Minimize script is not working as per expectation.

Solution: There is a code flaw in the script which leads to problem to work as per expectation. Problem has fixed with code block and made it to working

2.40 V3.3.58

2.40.1 New Requirement

► ALU02465937 Lxx.yy release support in PBMT

Problem: DPU software format of LXX.YYY need to be supported in PBMT

Solution: Required code changes in PBMT to support DPU SW with release format Lxx.YYY.

2.41 V3.3.57

2.41.1 New Requirement

► ALU02456936 PBMT & OFLMT support for R6.0

Problem: PBMT application must use latest LANX migration tool v1.84 (recently introduced).

Solution: Required code changes in PBMT to support and use latest LANX migration tool v1.84.

2.42 V3.3.56

2.42.1 New Requirement

► ALU02463990 PBMT Application should retry when System is busy in TL1 communication

Problem: There is no retry mechanism when application detects system busy.

Solution: When application detects system busy, It will retry maximum of 5 times with configurable retry wait time.

2.42.2 Error Correction

► ALU02437757 PBMT statusCheckCmp.pl reports incorrect result

Problem: statuscheck compare script doesn't provide proper results when ONT state information differ between pre-migration and post-migration.

Solution: Instead of checking the ONT OSS state from pre-migration and post-migration, It will start to compare the state difference blindly for OSS and ISS ONT states

2.43 V3.3.55

2.43.1 Error Correction

► ALU02457606 Migration interrupt on emergency call feature" doesn't work for sharedline

Problem: For "Migration interrupt on emergency call feature", please take "secondary-sip-term" table into consideration.

Solution: Secondary-sip-term and emergency-call-sec are added to the emergency-call-alarm list

2.44 V3.3.54

2.44.1 Error Correction

► ALU02456796 Status check pre and post display NOK in PBMT Version: V3.3.53

Problem: When Status Check pre/post is run it displays debug errors in V3.3.53

Solution: Log message has issue that was recently introduced to trace SNMP messages

2.45 V3.3.53

2.45.1 Error Correction

► ALU02456102 migrate.pl fails for HiCap Boards

Problem: migrate.pl script fails fails for 58 to 5801 for HiCap Boards.

Solution: Handled perl Die problem by fixing the function call in IsamCli library

2.46 V3.3.52 Skipped

2.47 V3.3.51

2.47.1 New Requirement

- ▶ **ALU02447836 PBMT Code changes to support In-service Migrate/Upgrade of FX-7360**

Problem: Code changes in PBMT tool to support In-Service upgrade of FX-7360

Solution: Required code change in PBMT to support In-Service upgrade done for FX-7360

2.48 V3.3.50

2.48.1 Error Correction

- ▶ **ALU02450204 Remotes (Migration): Couldn't open TL1 session on running StatusCheck.pl**

Problem: When CLI is configured as telnet and TL1 is configured as ssh and UPD_KNOWN_HOST_FILE is set to Y, the script is not able to update the known host when RSA key is received

Solution: RSA key is also updated in the known host when UPD_KNOWN_HOST_FILE is set to Y

2.49 V3.3.49

2.49.1 Error Correction

- ▶ **ALU02444650 config TPID in R57, PBMT migration to R58, slot16 "use-vlan-dot1q-etype" didn't remove**

Problem: When TPID config is done in previous releases and cli slot numbering is configured as type-based, then "use-vlan-dot1q-etype" for certain slot number was not removed.

Solution: If the slot numbering is type-based then the LT slot number retrieved via cli is converted to match the slot numbering in lpd/config.cfg file to remove "use-vlan-dot1q-etype" for the particular slot.

2.50 V3.3.48-Skipped

2.51 V3.3.47

2.51.1 Error Correction

- ▶ **ALU02400908 ONTDLACT ont software ctrl rule set fail due to SARB but no error**

Problem: Customer is now using LRM to download or activate ONT software. With some large node, PBMT script sets the ONT SW CTRL rule but it is not really implemented due to SARB (NE resource busy). PBMT does not check if ONT ctrl rule is really set well or not so result is still PASS when it should return as failure

Solution: Error count incremented when update of ONT software control table has failed to report as a failure summary at end of execution.; Redelivered same issue (from V3.3.42), Additionally handling the configured ONT count is zero and process unconfigured ONTs

2.52 V3.3.46

2.52.1 Error Correction

► ALU02431642 swdl.pl failed when rpni-c is plugged in

Problem: Rpn-c support was not available in PBMT Capabilities

Solution: RPNI-C is added to PBMT Capabilities

2.53 V3.3.45

2.53.1 New Requirement

► ALU02423319 SRNT-P board support in PBMT from release R5701a

Problem: New NT Board SRNT-P is introduced for support/use

Solution: Required code change in PBMT to support SRNT-P board for any future migrations purpose

2.54 V3.3.44

2.54.1 New Requirement

► ALU02420579 LANX MIGRATION TOOL R1.83 support in R58

Problem: Lanx migration tool provided a new version R1.83 which must be support and use in PBMT to perform any Lanx migration

Solution: Required code change in PBMT to use newly introduced Lanx migration tool R1.83 for any Lanx migrations.

2.55 V3.3.43

2.55.1 New Requirement

► ALU02400566 PBMT code changes to support TPID translation

Problem: From 58 release onwards, update the NT Configuration to disable TPID translation for NT ports attached to FELT-B LT that was previously configured with an uplink board profile.

Solution: As per requirement, In migration through PBMT we disable/remove the felt-b ports which are configured as ethernet uplink mode.

2.56 V3.3.42

2.56.1 Error Correction

- ▶ **ALU02400908 (and clones ALU02411879, ALU02411880) : ONTDLACT ONT software ctrl rule set fail due to SARB but no error**

Problem: Customer is now using LRM to download or activate ONT software. With some large node, PBMT script sets the ONT SW CTRL rule but it is not really implemented due to SARB (NE resource busy). PBMT does not check if ONT ctrl rule is really set well or not so result is still PASS when it should return as failure..

Solution: Error count incremented when update of ONT software control table has failed to report as a failure summary at end of execution.

- ▶ **ALU02403385 (and clones ALU02411889, ALU02411890) : PBMT will quit when rtrv-ont::all but no ONT configured on OLT**

Problem: Current PBMT script will just quit when "rtrv-ont::all;" when no ONT is configured on target OLT.

Solution: The constraint of having atleast one ONT configuration to proceed in ONT Download Activate script is removed. Instead of script exiting when no ONT is configured, the script will now print a message in log file and proceed further .

2.56.2 New Requirement

- ▶ **ALU02405898: XVPS Db version is B5.701 for 5701 release**

Problem: Migration failure is observed when XVPS migration is performed within Minor releases

Solution: Migration Code updated to include XVPS migrated content when XVPS migration is attempted between minor releases.

2.57 V3.3.41

2.57.1 New Requirement

- ▶ **ALU02400566: PBMT code changes to support TPID translation**

Problem: TPID translation disable support in PBMT through migration when active release is lesser than release 58 and target version is equal or greater than 58 release for FELT-B boards previously configured with uplink board profile

Solution: Support provided in PBMT to disable TPID translation for NT ports attached to FELT-B boards configured in uplink mode in NANT-E and all FANT variants

2.58 V3.3.40

2.58.1 New Requirement

► **ALU02405898: XVPS Db version is B5.701 for 5701 release**

Problem: PBMT code changes to support XVPS Db version B5.701 for 5701 release

Solution: Code changes done to support the respective XVPS Db version in 5701

2.59 V3.3.39

2.59.1 New Requirement

► **ALU02402433: PBMT code changes to support ISR58**

Problem: ISR58 release need to be supported in PBMT

Solution: Required code changes done in PBMT to support ISR58

2.60 V3.3.38

2.60.1 New Requirement

► **ALU02401314: Post migration script invocation in migrate script**

Problem: Post migration script invocation via migrate.pl needs to be updated

Solution: Post migration script calling notation changed to include only ISAM IP address and log directory as command line options

2.61 V3.3.37

2.61.1 New Requirement

► **ALU02397238: Migration restricted from 5602 release to 57 release**

Problem: Migration need to be restricted from 5602 release to 57 release.

Solution: Code changes done to not allow any migration operation from 5602 release to 57 release and allow migration from 5602 to 5701 release

2.62 V3.3.36

2.62.1 New Requirement

► **ALU02392474: CFNT-C support in PBMT from Release 5701**

Problem: CFNT-C support is required in PBMT from Release R5701

Solution: Code changes in PBMT done to support CFNT-C from 5701 release onwards.

2.63 V3.3.35

2.63.1 Error Correction

► ALU02380215: Passive software abort NOK while downloading build using swdl.pl

Problem: When ISAM is up with ISR51 build and passive OSWP is in disabled state, trying to perform software download with PBMT version V3.3.31 gives a regexp error stating failure to retrieve OSWP info "passive SWP name '/Sw/Ont' not according to regexp '.....(\d)(\d).(\d)(\d\d)'"

Solution: The issue occurs during passive OSWP available state being disabled, and download of OSWP file is attempted when the SWP file is not existing in ISAM especially when only oswp1 is active and oswp2 is disabled. Now we have handled this scenario, by not trying to fetch SWP name of passive OSWP (when its available state is disabled)

2.63.2 New Requirement

► ALU02386457: PBMT & OFLMT support for DB change in R5701

Problem: PBMT and OFLMT support required for DB change in R5701

Solution: Support for R5701 DB change is provided in PBMT and OFLMT.

2.64 V3.3.34

2.64.1 New Requirement

► ALU02384555: PBMT support for DB change in R5602

Problem: PBMT support required for DB change in R5602

Solution: Support for R5602 DB change is provided in PBMT

2.65 V3.3.32 & V3.3.33 (skipped)

2.66 V3.3.31

2.66.1 Error Correction

► ALU02373989: MX- RANT-A - PBMT is hanged when privilege is given as read-only for community PUBLIC

Problem: PBMT is hanged when privilege is given as read-only for community PUBLIC

Solution: One of pre-constraint was SNMP community should have read and write access to set some values through SNMP.
Setting an community read-only requirement will not happen in real-time.

Since SNMP community is read-only, Unable to set expected value through SNMP. Considering the execution to be in loop with timeout, We are fixing it by trying at some iteration count for all scenarios.

2.67 V3.3.30

2.67.1 New Requirement

► ALU02360205: PBMT support for 7367 ANSI CDER-A

Problem: 7367 ANSI CDER-A need to be supported in PBMT

Solution: Provided required code changes done in PBMT to support 7367 ANSI CDER-A.

2.68 V3.3.29

2.68.1 Error Correction

► ALU02354283: [PPP] [MX] After migration PPP traffic were discarded at bridgeport level

Problem: The root cause of the problem is the Uplink VLANport configuration made as mandatory in R5501, due to introduction of ERPS on MX/SX. Prior to ERPS introduction, only one uplink port or LAG uplink was supported on MX/SX platforms.

ERPS mandates more than one physical uplink support for Uplink to support ring traffic in both uplinks during failure, which allows multiple uplinks configured and hence requires explicit BP and VLANport configuration on these uplinks

Solution: Workaround for this issue is given via pre-migration script – RemotesUplinkConfig. The script requires the uplink port to be provided as input by the operator. If the uplink Bridgeport is not available it will be created on uplink port provided, otherwise existing uplink port will be used by fetching all VLAN ids from user bridge port, multicast and pppox client port configuration and associated to the uplink Bridgeport. No configuration action will be taken by the script if above uplink VLANport configuration is already available and Mac-learning will be disabled for all newly created uplink Bridgeports and VLANports

2.69 V3.3.28

2.69.1 Error Correction

► ALU02371048: Removing conversion scripts from pbmt

Problem: We need to remove convert scripts from PBMT. These scripts will henceforth be delivered separately to customer on request.

Solution: The convert scripts have been removed from the PBMT package.

2.70 V3.3.27 (skipped)

2.71 V3.3.26

2.71.1 Error Correction

► ALU02346977: [cox isam cft] Migration failure

Problem: Migration fails after two hours, PBMT logs created huge 10+GB.

Solution: PBMT script run in loop, when it tries to migration duplex setup with FGLT-B (or) FWLT-A. This happens only when migration from R53 and not from r5502. A behaviour change observed with FGLT-B Lts in-between R53 and R5502 releases.

Now PBMT script has adopted to handle both the releases in common script

2.72 V3.3.25

2.72.1 Error Correction

► ALU02346977: FR: DSL sync details missing from the preOperCheck and postOperCheck logs during migration SX16F

Problem: While performing statuscheck of ISAM before and after migration, seems that script is not populating XDSL line details properly

Solution: We observed that LT Ifindex value got changed recently, It implies the SNMP MIB OID to fetch XDSL line details. Now we use CLI command to fetch XDSL line details.

2.72.2 Error Correction

► ALU02351031: ONTs not getting upgrade using PBMT via LRM TRD 05/04/2017

Problem: ONT upgrade through download and active not working properly for a HW Version pattern 3FE56389AB*

Solution: Processing of all our TL1 command O/P is now started to treat all special/predefined characters as normal characters as like others. So that it will match * as *, not treated as predefined behaviour special character

2.73 V3.3.24

2.73.1 Error Correction

► ALU02325693: Redundant NT not syncing due to insufficient CF space

Problem: ISAM flashed with R4.3.05c factory release. When we try to download with/without reduce option through PBMT. Execution end up with threshold 95% space issue.

Solution: We gave workaround in PBMT to fix this CF space threshold issue by running some set of T&D commands in ISAM.

Which was earlier run through manually.

2.74 V3.3.23

2.74.1 New Requirement

► ALU02350073: PBMT code changes to support ISR57

Problem: ISR57 release need to be supported in PBMT

Solution: Provided required code changes done in PBMT to support ISR57.

2.75 V3.3.22

2.75.1 Error Correction

► ALU02345022: PBMT swdl.pl won't download to ISAM build 33.521

Problem: transaction configure lock/release issue when ISAM has 33.521 and trying to download R53+.

Solution: Problem only occurs when ISAM has build lesser than R5102. So logic we approached is Acquire/Release the transaction configure-lock has done through CLI (if not obsolete) and then SNMP to support the older and newer version of SNMP

2.76 V3.3.21

2.76.1 New Requirement

► ALU02347016: PBMT Changes to support LANX version 1.82

Problem: New LANX version is introduced

Solution: Required code changes done in PBMT to handle LANX version 1.82.

2.77 V3.3.20

2.77.1 Error corrections

- ▶ **ALU02346179: FR: DSL sync details missing from the preOperCheck and postOperCheck logs during migration SX16F**

Problem: XDSL Line details were not shown properly in status check script operation check log files

Solution: Now we have included the ANSI VSRAM type to fetch XDSL line details.

2.78 V3.3.19

2.78.1 Error corrections

- ▶ **ALU02342031: PBMT statusCheckCmp.pl cannot be run from command line**

Problem: PBMT script statusCheckCmp.pl can't be run from command line like './statusCheckCmp.pl'

Solution: Issue solved through update SHABONG line in PBMT script statusCheckCmp.pl to run directly.

2.78.2 Error corrections

- ▶ **ALU02323756: [MIGR] [XGS-PON]: migrate.pl Failed: 2041: New software not activated**

Problem: Migration fails and throw error as "New software not activated and Rollback". It happens only for FGLT-B/FWLT-W It boards as it takes more time to bring up and ISAM connectivity issue. (See RCR ALU02010066: ISAM Upgrade Improvements [LT SW Pre-Download])

Solution: Incorporated logic to adopt act-act-nt in active status message and handled ISAM-PBMT communication properly

ALU02342304: Clone of ALU02342031

ALU02342305: Clone of ALU02342031

2.79 V3.3.18

2.79.1 Error corrections

- ▶ **ALU02335757 : Migration via PBMT tool from 5501 to 5502 fails stating release 5505 is not known for migration**

Problem: On NRNT-A board, migration failed from 5501 to 5502 version with error stating that release not known for that migration.

Solution: Release 5500 series has configured in the mapping configuration list.

2.80 V3.3.17

2.80.1 Error corrections

- ▶ **ALU02329470: Clone of ALU02330646.**

ALU02330645: Clone of ALU02330646

2.81 V3.3.16

2.81.1 Error corrections

- ▶ **ALU02330646 : Migration ISAM with PBMT tool failed with error “SNMPv3 privacy protocol can only be DES”**

Problem: While running ont scripts (ONT Staging, ONT Download Activation), doesn't accept DES as SNMPv3 privacy protocol. But other PBMT script which has SNMPv3 provision accept DES as privacy protocol.

Solution: Now we have provided DES as one of the possible value for SNMPv3 privacy protocol for ont scripts.

2.81.2 Error corrections

- ▶ **ALU02325687 : When LRM failure occurs, log file directs the user to a _0 file.**

Problem: While PBMT script ran with -id options, PBMT will log all kind of message on <logfile> as id option value along with some predefined value and won't generate log file as <logfile>_0. When some error occurs PBMT instruct us to look on <logfile>_0.

Solution: PBMT scripts will not instruct to look into <logfile>_0 for detailed log information when we pass -id option.

2.82 V3.3.15

2.82.1 New requirement

- ▶ **ALU02328971 : PBMT changes to support R5601**

Problem: PBMT support for R5601 should be given.

Solution: PBMT support for R5601 is provided.

2.83 V3.3.14

2.83.1 New requirement

► ALU02324103 : PBMT changes to support R5502

Problem: PBMT support for R5502 should be given.

Solution: PBMT support for R5502 is provided.

2.84 V3.3.13 skipped

2.85 V3.3.12

2.85.1 Error corrections

► ALU02311349 : PBMT migration failed due to New software not activated error

Problem: While running migration script, it fails with the following error. Migration is done successfully but the script fails as "New software not activated, system rolled back".

Solution: Since it's a duplex FANT-G system upgrade via standby NT must be done before the NT restart.

2.86 V3.3.11

2.86.1 Error corrections

► ALU02310475 : Migration script fails due to transaction release error

Problem: While running migration script, after NT restart when another SNMP manager tries to access the ISAM it fails with the following error. Migration is done successfully but the script fails as it's not able to release transaction.

Solution: The CLI command for transaction acquire is replaced with SNMP as the CLI command has become obsolete. Now proper transaction lock will be obtained by PBMT on the ISAM, so it won't allow other managers to access the ISAM even after restart.

2.87 V3.3.10

2.87.1 Error corrections

► ALU02307515 : R5501 offline migration not working for team builds

Problem: R5501 offline migration not working for team builds dm.prot is not properly migrated, so the LANX NTs loose the IP@ configuration and MIGRATION_02 is failing (aborted after ~40 min).

Solution: For LIS builds also we migrate offline to the target DB version viz. B5.501.

2.88 V3.3.9

2.88.1 New requirement

► ALU02285181 : Improvements in ISR56

Problem: PBMT improvements planned for ISR56 are:

1. Using SNMP to acquire and release transaction since the CLI commands for the same have become obsolete.
2. Pre-check of whether database activation after-download is enabled in the ISAM wherever database download is done.
3. Support for LANX migration tool 1.81.
4. Better logging functionality.
5. Handling of statusCheck.pl script for boards not supporting TL1.
6. Support for SRNT-K.

Solution: The PBMT improvements are done.

2.89 V3.3.8

2.89.1 New requirement

► ALU02285181 : Improvements in ISR56

Problem: PBMT improvements planned for ISR56 are:

1. Using SNMP to acquire and release transaction since the CLI commands for the same have become obsolete.
2. Pre-check of whether database activation after-download is enabled in the ISAM wherever database download is done.
3. Support for LANX migration tool 1.81.
4. Better logging functionality.

Solution: The PBMT improvements are done.

2.90 V3.3.7

2.90.1 New requirement

► ALU02285181 : Improvements in ISR56

Problem: PBMT improvements planned for ISR56 are:

1. Using SNMP to acquire and release transaction since the CLI commands for the same have become obsolete.
2. Pre-check of whether database activation after-download is enabled in the ISAM wherever database download is done.
3. Support for LANX migration tool 1.81.

Solution: The PBMT improvements are done.

2.91 V3.3.6

2.91.1 New requirement

► ALU02285181 : Improvements in ISR56

Problem: PBMT improvements planned for ISR56 are:

1. Using SNMP to acquire and release transaction since the CLI commands for the same have become obsolete.
2. Pre-check of whether database activation after-download is enabled in the ISAM wherever database download is done.

Solution: The PBMT improvements are done.

2.92 V3.3.5

2.92.1 Error corrections

► ALU02286690 : PBMT wrong variable name in StageONT7302HiCap.pm, affects DWLDONTRELMAPFILE feature

Problem: When PBMT is used to transfer the ONT release mapping file to the 7360 to support the OLT feature "ONT type alarm differentiation", a failure is seen if --ontreleasemap is used to point to a mapping file outside of the ONT software delivery folder.

Solution: Correct variable is used to find the file size of ONT Releasemap file.

2.93 V3.3.4

2.93.1 New requirement

► ALU02285705 : PBMT support for LANX migration tool 1.81

Problem: PBMT should support new LANX migration tool 1.81.

Solution: PBMT support for new LANX migration tool 1.81 is provided.

2.94 V3.3.3

2.94.1 Error corrections

- ▶ **ALU02275785 : PBMT 3.2.96 cvtNantA2E.pl script fails when only Radius authentication is allowed on isam**

Problem: The cvtNantA2E.pl fails with error: FAILED: Failed to open '/ams/swm/ne//tmp/10.64.164.87/CTusr000.txt' for reading: No such file or directory.

Solution: The issue comes only when RADIUS is enabled. The conversion scripts fail while accessing the CTusr000 table, because the CTusr000 table has been modified as CTusr003. Changes are done so that the scripts access either CTusr000 or CTusr003 whichever is present in the DB, and no password reset of the system admin to default value happens during conversion.

2.94.2 Error corrections

- ▶ **ALU02280023 : Migrate.pl fails with error: Upgrade Restricted.**

Problem: When migrate.pl is executed to migrate from 54 to 5501 it fails with error Upgrade Restricted: Target release different from active

Solution: Code changes to pick DB Version from build is introduced for a particular range of build version.

2.95 V3.3.2

2.95.1 New requirement

- ▶ **ALU02278259 : PBMT support for Perl v5.16.3**

Problem: PBMT support for Perl v5.16.3 should be given.

Solution: PBMT support for Perl v5.16.3 is provided.

2.95.2 New requirement

- ▶ **ALU02276408 : PBMT changes to support R56**

Problem: PBMT support for R56 should be given.

Solution: PBMT support for R56 is provided.

2.96 V3.3.1

2.96.1 Error corrections

► ALU02271670 : Offline migration is not working correct for LIS builds

Problem: PBMT tool is not working correct for team packages (number range 7xx). Reason: Capability.pm contains information about which database to be used for 55.3xx and 55.4xx build numbers (B5.501), but not for 55.7xx. As a consequence, PBMT tool creates DB A5.500 for 55.7xx builds.

Solution: use exact DB version from build files for offline migration.

2.96.2 Error corrections

► ALU02253637 : cvtNantA2D.pl script does not work properly with PBMT V3.2.76

Problem: KPN has trouble using cvtNantA2D.pl for PBMT 3.2.76. As customer claim the ISAM with converted database (NANT-D) did not boot up. I have tested issue in my TSC lab there are some errors as we trying to boot up nant-d with converting database.

In TSC lab ISAM could be boot up however configuration under service context is missing.

Solution: While convert from NANT-A to NANT-D, Configure services were included properly profile admin details (DbProfile). Through that admin can configure new services properly.

2.96.3 Error corrections

► ALU02232832 : PBMT v3.2.76 doesn't convert the DB correctly

Problem: PBMT v3.2.76 doesn't convert the DB correctly

Solution: Conversion from NANT-A to NANT-D DB contents were updated properly, Issue occurred because some table were missed to populate in NANT-A from R51 to R53 migration.

2.96.4 Error corrections

► ALU02240675 : cvtNant*.pl conversion scripts fail when ISAM only accepts SSH

Problem: When ISAM only accept SSH for the CLI, cvtNantA2D.pl is not able to connect ISAM.

Solution: Connecting ISAM through SSH mode operation is provided in ISAM for conversion script.

2.96.5 Error corrections

- ▶ **ALU02240338 : Migration from R5.2.02f to R5.3.02a randomly reported error TRD 30days**

Problem: Migration from R5.2.02f to R5.3.02a randomly reported error TRD 30days. 2016-06-17 19:20:13 [FamilyCommon::IncrErrorCount:950] Child 0: 2016-06-17 19:20:13: Failed for olt02.nuq151.googlefiber.net: 2006: Transaction owner release period expired (owner 1.1.1.1)

Solution: Handled the traction acquire lock and release properly now in ISAM through PBMT.

2.96.6 Error corrections

- ▶ **ALU02273329: Clone of ALU02271670.**

2.97 V3.3.0

2.97.1 Error corrections

- ▶ **ALU02271083 : FT issues found for pbmt support for SNMP to YANG RCR**

Problem: swdl.pl script fails when Minimized swp of YANG build is passed without '--btype YANG argument. precheck.pl script fails when Minimized swp of YANG build is passed without '--btype YANG' argument. Upgrade.pl returns conditional success stating isam is not pingable while isam is reachable.'--btype YANG' argument is passed. Migrate.pl returns conditional success stating isam is not pingable while isam is reachable.'--btype YANG' argument is passed.

Solution: Reported issue has handled to cross check passed SWP name along with NT SWP map file content and minimized one
Check have handled properly to return proper exit status

2.98 V3.2.99

2.98.1 New requirement

- ▶ **ALU02250240: SNMP to NetConf upgrade through PBMT**

Problem: A code drop to support upgrade from SNMP to NETCONF build through pbmt.

Solution: Support for upgrade from SNMP to NETCONF in PBMT is given.

2.99 V3.2.98

2.99.1 Error corrections

- ▶ **ALU02270353 : AMS 9.5.03 NE download ISR5.4+ OSWP fail when LT board usage is edited**

Problem: AMS 9.5.03 NE download ISR5.4+ OSWP fail when LT board usage is edited.

Solution: Missed to parse and handle MinSet configuration details in user defined configuration (instead of fetch through ISAM) while fetching the NTType. Minset value also passed as part of Nt-Type since parsing is missed.

2.99.2 Error corrections

- ▶ **ALU02270390: Clone of ALU02270353.**

2.100 V3.2.97

2.100.1 Error corrections

- ▶ **ALU02266288 : [7363 NGVR][Migration tool] migrate 7363 NGVR from R52.615 version to R55.113 via AMS fail**

Problem: 7363 NGVR run normal in 52.615 version, NGVR is managed by AMS, then migrate NGVR from R52.615 to R55.113 version via AMS, it should be success, but now, it always fail, the reason of failure is "DB version not as expected vs A5.200".

Solution: Removing the DB Migration Path change support for B5.2.03 support is not required. DTAG customer will use offline migration directly.

2.100.2 Error corrections

- ▶ **ALU02237462: PBMT tools swdl reduce problem in the linux platform**

Problem: Reduce option is working in the solaris platform, but in the linux platform, the script isn't working.

Solution: During reduced download, the reduced descriptor file and the overall reduced descriptor file are formed under the hostname directory. But the contents of the overall descriptor file is formed with ip addr of the ISAM instead of hostname. So, download fails while trying to put the reduced descriptor file to the ISAM. Changes are done so that the overall reduced descriptor file is formed based on whether the reduced descriptor file is formed under ip addr directory or hostname directory.

2.101 V3.2.96

2.101.1 Error corrections

► ALU02263616: [7367 VOICE]Migration should fail if new CDE is not available

Problem: When doing migration, if new CDE can't be downloaded migration should fail and report error. But for 7367 migration is successful, when CDE is empty.

Solution: New voice boards like SPOT-A, SPOT-C and SPOT-D were not included in the check for voice boards in PBMT. So, the script assumes that there is no voice board inserted and does migration even without CDE files. So these boards are included in the check to resolve this issue.

2.101.2 New requirement

► ALU02265039: To support DB change (for migration) in 5501

Problem: In Migration (PBMT & OFLMT), to support database change in R5501 release and its DB version termed as B5.501.

Solution: The Db change support in 5501 is given.

2.102 V3.2.95

2.102.1 Error corrections

► ALU02253040: Migration when tried with oflonly and ofldb failing (Within Same release)

Problem: Migration when tried with oflonly and ofldb is failing (Within Same release) with Can't call method "version" on an undefined value at /home/gelango/mig55/55.088/lib/ToolCommon.pm line 689.

Solution: oflonly and ofldb option is not required for internal upgrade/migration (even though we use migrate.pl , This feature is introduced for AMS to use single script for upgrade and migration) when there really no DB migration taken place. This scenario won't occur anytime, Also we have to suggest the team (LRM/TEC team) to use appropriate scripts for migration and upgrade.

2.102.2 Error corrections

► ALU02257963: Warning thrown when performing Migration from 53.172 to 55.095 using ofldb option in AGNT-A

Problem: When i ran migrate.pl with ofldb option from 53.172 to 55.095 in AGNT-A. DB migration is successful but i see a below error in the script [PID 30029] Warning [package 'main', file: 'migrate.pl', line:2087]: Use of uninitialized value in numeric eq (==) at migrate.pl line 2087.

Solution: Problem has solved by the way to set default to a variable, which is checked and thrown warning

2.103 V3.2.94

2.103.1 Error corrections

► ALU02251693: Brand ALU has to be rebranded to Nokia in config.pl of PBMT

Problem: Rebrand the name of ALU to Nokia in PBMT scripts.

Solution: Brand ALU has been modified to Nokia in Config.pl, upgrade.pl and migrate.pl.

2.103.2 Error corrections

► ALU02255980: Statuscheckcompare result stores wrong result for a node if prior node compare is failing

Problem: Statuscheckcompare result stores wrong result for a node if prior node compare is failing

Solution: StatusCheckCmp.pl is modified so that the results of each node is correctly stored in the result files while using --hosts option.

2.104 V3.2.93

2.104.1 New requirement

► ALU02237966: Improvements in ISR R5.5

Problem: Some of the improvements planned in ISR R5.5 are:

1. debug ssh port change from 30 to 11130 from R5.5 onwards
2. Handle some often access functional arguments to PBMT global. So that can access and update anywhere in PBMT
3. Ensure PBMT host(s) options behavior and functionality
4. Issues found in PBMT:
 - Rollback of AGNT-A with --swpfile option
 - Rollback to a minimized/reduced OSWP for ANSI

Solution: The improvements are handled in PBMT.

2.105 V3.2.92

2.105.1 Error corrections

► ALU02240675: cvtNant*.pl conversion scripts fail when ISAM only accepts SSH

Problem: cvtNant*.pl conversion scripts fail when ISAM only accepts SSH.

Solution: Connecting ISAM through SSH mode operation is provided in ISAM for conversion script.

2.106 V3.2.91 skipped

2.107 V3.2.90

2.107.1 New requirement

► **ALU02250240: SNMP to NetConf upgrade through PBMT**

Problem: A code drop to support upgrade from SNMP to NETCONF build through pbmt.

Solution: Support for upgrade from SNMP to NETCONF in PBMT is given.

2.108 V3.2.89

2.108.1 New requirement

► **ALU02237966: Improvements in ISR R5.5**

Problem: debug ssh port must be changed from 30 to 11130 from R5.5 onwards.

Solution: Debug ssh port is changed from 30 to 11130.

2.109 V3.2.88

2.109.1 New requirement

► **ALU02236748: ANSI 7330: Align PBMT Rollback options with 7360 and 7342**

Problem: This new requirement is to align the Rollback script behavior to ISR (7360) and FGU (7342) stream by accepting the Active OSWP as parameter to the --swp parameter.

Solution: The rollback behaviour of ANSI stream is aligned with the ISR by accepting active oswp for the --swp parameter.

2.110 V3.2.87

2.110.1 Error corrections

► **ALU02224709: Swdl+reduce fails if debug mode is kept as ssh**

Problem: swdl+reduce fails with debug ssh enabled throwing 1024: SW reduction failed: SW reduction ended prematurely: 10000: Executing 'octopus' failed (Enable write on /Sw failed) error.

Solution: Parsing of the secure debug settings is modified.

2.111 V3.2.86**2.111.1 Error corrections****► ALU02231273: Issues found in XDescriptor**

Problem: Through hosts option, When PBMT generate new OSWP as per build's NT-SWP-Mapping. Migration throw error like SW pre-check failure: SWP 'L6GPAA54.408' not present as second SW and warnings like Use of uninitialized value \$family in hash element at /home/arulbria/pbmt/5401.412/lib/Capability.pm line 6255.

Solution: XDescriptor feature is included for precheck script also. V3.2.85 skipped

2.112 V3.2.84 skipped**2.113 V3.2.83****2.113.1 New requirement****► ALU02188053: Modifications of PBMT perl code for ALU02061162**

Problem: Adding the ANSI decisions to the code to force the PMBT to use T&D SSH in the same areas as in the ported RCR ALU02033563.

Solution: Added the ANSI decisions to the code to force the PMBT to use T&D SSH in the same areas as in the ported RCR ALU02033563.

2.114 V3.2.82**2.114.1 Error corrections****► ALU02215557: Failed to download Minimized NE SW release to the multiple ISAM NE's with dual NT cards**

Problem: Managed 2 NE's with dual NT cards and minimized the NE software release (Only the NT cards which are used in those two NEs are make it as 'used' and all other NT card SW loads as 'unused'). After that triggered NE SW download on both NEs we are getting download failed with an error "Minimize SWP failed.{0}" for both NEs.

Solution: While trying to minimize the SW with more than NT-TYPE, then allow to minimize when all NT falls under same SWP Descriptor file and throw appropriate error message.

2.114.2 Error corrections**► ALU02216697: NGVR: Precheck fails when migrating using PBMT in RANT-A**

Problem: NGVR: Precheck fails when migrating using PBMT in RANT-A

Solution: We have included the NT-SWP mapping and picking the right SWP descriptor in preCheck too since all the scripts are independent and preCheck can run before SW Download.

2.114.3 Error corrections

ALU02220647: Clone of ALU02216697.

2.115 V3.2.81

1.1.1 Error corrections

► **ALU02202972: Warnings thrown while doing swdl+ reduce in parallel node.**

Problem: swdl+reduce throws the following error. Use of uninitialized value \$out[0] in pattern match (m//) at /home/gelango/mig5401/PBMT/54.360/lib/SecureDebugTAndD.pm line 783.

Solution: We have reset GloabalVariables which affect misbehavior of ISAM for hosts options.

2.116 V3.2.80

2.116.1 New requirement

► **ALU02211967: PBMT update to support Proposal builds in R5401**

Problem: PBMT update to support Proposal builds in R5401 for RLAB runs.

Solution: PBMT update to support Proposal builds in R5401 for RLAB runs is provided.

2.117 V3.2.79

2.117.1 New requirement

► **ALU02206611: RCR ALU0216792 - Multiple SWP Descriptor as per Build information**

Problem: Changes should be made in PBMT to support multiple/Dynamic SWP Descriptor information based on build.

Solution: Changes made in PBMT to support multiple/Dynamic SWP Descriptor information based on build.

2.118 V3.2.78

2.118.1 New requirement

► ALU02196748: PBMT support for FGN45

Problem: PBMT support for FGN45.

Solution: PBMT support for FGN45 is given.

2.119 V3.2.77

2.119.1 Error corrections

► ALU02196118: Disconnect one of two ongoing emergency-calls, migration will interrupt the rest call and complete.

Problem: Establish two emergency-calls. Disconnect one of the two emergency-calls. Migration is successful and the rest call is interrupted. But Migration should be interrupted and the rest call should not be interrupted.

Solution: The command used to retrieve the emergency call alarms is modified so that even cascading calls can be captured.

2.120 V3.2.76

2.120.1 Error corrections

► ALU02184944: [MIGR]: ontDownloadandActivate with operationmode ACTONLY results in "ONT SW Version Cntrl Error"

Problem: Failing ontDownloadandActivate with parameter --operationmode ACTONLY on large FieldDB(all ONTs sw-ver-planned=AUTO) with extra ONTs(G-010G-P in this case) added with fixed sw-ver-planned

Solution: sw-ver-pland is set as AUTO only to the OOS ONTs which has the mnemonic equal to the 'onttype' passed to the ontDownloadandActivate.pl script.

2.120.2 Error corrections

► ALU02200401: cvtNantA2D.pl script fails in 5.3.01g

Problem: cvtNantA2D.pl script fails with the following error message.
FAILED: SHUB System: CLI response not completely parsed, left: 'isadmin># '

Solution: Fix has provided to eliminate ISAM prompt values, while fetch configuration through 'info configure' o/p.

2.120.3 Error corrections

► ALU02175120: [MIGR]: "Failed to add ONT SW CTRL table entry" executing ontDownloadandActivate

Problem: Executing PBMT-script ontDownloadandActivate an error is generated: "Failed to add ONT SW CTRL table entry"

Solution: Entry is created in the SW CTRL table only for the ONTs whose HWVER and VARNT are unique.

2.121 V3.2.75

2.121.1 New requirement

► ALU02198672: PBMT support for ISR55

Problem: PBMT support for ISR55.

Solution: PBMT support for ISR55 is given.

2.122 V3.2.74

2.122.1 Error corrections

► ALU02193793: FT: Issues found in R5401 RCR(s) ALU02076635 and ALU02070958

Problem: When Emergency call feature is Disabled, Then no need to prompt emergency call poll timeout value.

Solution: When emergency-call feature is disabled while running Config.pl it will not prompt for emergency call polling timeout value.

2.122.2 Error corrections

► ALU02189074: Statuscheck is failing in second node if tl1-ssh configured in 1st node and tl1-udp configured in 2nd node

Problem: When statuscheck pre is run, statuscheck pre is passing for the first node and it is failing for the second node. (cli-ssh tl1-ssh in first node cli-ssh tl1-udp in second node)

Solution: Reset the global variable which design the connection type as SSH/Telnet, when we perform operation on each isam through hosts option

2.122.3 Error corrections

► ALU02197279: Migration is passing and PBMT is common across release (Hence raising this FR in R5302)

Problem: After migrating from 46.088 to 54.153 , Migration is successful but the below warning is thrown. Warning [package 'FamilyCommon', file: '/home/gelango/migration54/PBMT/54.153/lib/FamilyCommon.pm', line:481]: Argument "" isn't numeric in numeric eq (==) at /home/gelango/migration54/PBMT/54.153/lib/FamilyCommon.pm line 481.

Solution: Some SNMP query return error message as 'noSuchObject'. Now we have handled that error message too.

2.122.4 Error corrections

- ▶ **ALU02197781: Clone of ALU02189074.**

2.123 V3.2.73

2.123.1 Error corrections

- ▶ **ALU02183524: [MIGR]: ontDownloadandActivate with --operationmode ACTONLY GPONOLTRNGMODE changed to NORMAL**

Problem: Executing PBMT-script ontDownloadandActivate with parameter -operationmode ACTONLY then the GPONOLTRNGMODE is changed again to NORMAL.

Solution: The GPONOLTRNGMODE configuration goes missing while running the ontDownloadandActivate.pl script. The script is modified such that the GPONOLTRNGMODE configuration retains it's previous value.

2.123.2 Error corrections

- ▶ **ALU02181126: [SX SF-16F - SRNT-D/SFLT-A] Radius auth-super-user config missing after migration from 5301 to 5302**

Problem: 'configure system security radius auth-super-user' missing on migrating from 5301.446 to 5302.512 in SX-16F

Solution: The radius configuration goes missing while running the statusCheck.pl script and not during migration. The script is modified such that the radius configuration retains it's previous value.

2.123.3 Error corrections

- ▶ **ALU02175510: [MIGR]: "Use of uninitialized value" executing ontDownloadandActivate with --operationmode ACTONLY**

Problem: Executing PBMT-script ontDownloadandActivate with parameter -operationmode ACTONLY some warnings are generated Warning [package 'OntDIAct7302HiCap', file: '/var/opt/ams/users/amssys/hoofp/5301.446_12978/lib/OntDIAct7302HiCap.pm', line:681]:

Solution: \$onts is processed only when it has some value.

2.124 V3.2.72

2.124.1 Error corrections

- ▶ **ALU02187728: [NGVR] "configure system security radius auth-super-user" command went missing on Migrating to R54**

Problem: [NGVR] "configure system security radius auth-super-user" command went missing on Migrating to R54 from 5001/ 5002

Solution: The radius configuration goes missing while running the statusCheck.pl script and not during migration. The script is modified such that the radius configuration retains it's previous value.

2.125 V3.2.71 skipped

2.126 V3.2.70

2.126.1 New requirement

- ▶ **ALU02190558: Migration interrupt in case of emergency call**

Problem: Migration should be interrupted in case of subscriber emergency call(911), the NE should not interrupt the emergency call.

Solution: PBMT scripts will check for the emergency call active status before activation of the NE. And if it's active, it retries for the user defined polling time and exits in case of the call is still active or proceeds if the call ends.

2.126.2 New requirement

- ▶ **ALU02190562: Ensure PBMT execution won't terminate because of timeout settings in ISAM**

Problem: Request to implement a mechanism that would perform a check on the CLI session and trigger a new CLI session to be set up, in case the prior times out.

Solution: Pbmt scripts checks on the CLI session and trigger a new CLI session if the existing session times out.

2.127 V3.2.69

2.127.1 Error corrections

- ▶ **ALU02188504: Warnings thrown while doing migration from 5301.446 to 54.129**

Problem: When i perform migration from 5301.446 to 54.129 a warning is thrown after migration in PBMT. Argument "" isn't numeric in numeric eq (==) at /home/gelango/migration54/PBMT/54.129/lib/FamilyCommon.pm line 480.

Solution: Some SNMP query return error message as 'noSuchObject'. Now we have handled that error message too.

2.128 V3.2.68

2.128.1 Error corrections

- ▶ **ALU02175921: [DPoE]: Shaw DB migrated from R500d through R5101g to R5300e FAILs to activate (fail from R5201 too)**

Problem: [DPoE]: Shaw DB migrated from R500d through R5101g to R5300e FAILs to activate (fail from R5201 too)

Solution: In IPD Configuration file, When dhcp lease-populate value is greater than 16384, Then update it to 16384.
This change is applicable from R53 onwards.

2.128.2 Error corrections

- ▶ **ALU02188447: Clone of ALU02175921.**

2.128.3 Error corrections

- ▶ **ALU02188448: Clone of ALU02175921.**

2.129 V3.2.67

2.129.1 Error corrections

- ▶ **ALU02120557: ONT Staging phase fails when SNMPv3 'Without Auth Without Privacy' or 'With Auth without Privacy' op**

Problem: while invoking ontstage.pl script with 'Without Authentication & without privacy' option, the script will return invalid command with option. while invoking ontstage.pl script with 'with Authentication & without privacy' option, the script will return result "36018: Could not retrieve system value using SNMP".

Solution: All SNMP options are handled in ONT scripts.

2.129.2 Error corrections

- ▶ **ALU02181912: Precheck in NRNT-I is failing**

Problem: While running precheck.pl in NRNT-I it is failing with the below error extended NT info failed: Failed to retrieve NTA extended info: show equipment slot 1/1/2 detail.

Solution: NT slot information is properly retrieved irrespective of the format.

2.129.3 Error corrections

- ▶ **ALU02184441: Clone of ALU02181912.**

2.129.4 Error corrections

- ▶ **ALU02182211: Software download fails due to failure to retrieve OSWP from firmware**

Problem: While running swdl.pl in SR\NT-D it is failing with the below error
Failed to retrieve OSWP info: Failed to obtain FW version info.

Solution: When retrieval of OSWP info via SNMP fails, it'll be retrieved from firmware successfully.

2.130 V3.2.66

2.130.1 Error corrections

- ▶ **ALU02182678: OLCS package validation is failing in SEM**

Problem: When trying to migrate to R5301f using OLCS package, migration is failing with the error 'Obtaining extended NT info failed: Failed to retrieve NTA extended info: show equipment slot 1/1/2 detail'.

Solution: For systems which support only one NT Type (equipment slot retrieval showing as nt instead of nt-a), the local definition of the variable retaining the slot Type has been changed to overcome the issue.

2.131 V3.2.65

2.131.1 Error corrections

- ▶ **ALU02174145: statuscheckpre fails in 54.095 pbmt**

Problem: For migrating from 5202.559 to 54.095 the following error is seen on running status check pre. Failed to retrieve outstanding alarms: Could not open TL1/SSH: Problem connecting to 135.249.18.26: pattern match timed-out ()

Solution: Even if the nodes take more than 10 seconds to respond for SSH connection, the script will wait till the timeout.

2.131.2 Error corrections

- ▶ **ALU02175729: Migration from 46.604 to 54.104 is failing when done via PBMT**

Problem: When tried to Migrate from 46.604 to 54.105 via PBMT Migration is unsuccessful with the following error 200: Processing Started for activity 'MIGR' 2015: DB version not as expected A4.600 vs C4.602

Solution: We have included 5006, 5306, and 4606 version and DB details for applicable NTs.

2.131.3 Error corrections

- ▶ **ALU02179242: Clone of ALU02174145.**

2.132 V3.2.64

2.132.1 Error corrections

- ▶ **ALU02174208: Precheck in parallel migration failing**

Problem: When i run precheck with node 1 as agnt-a node 2 and node 3 as nant-e for node 1 alone precheck passes for node2 and node3 it fails.

Solution: Equipment slot information will be properly retrieved.

2.133 V3.2.63

2.133.1 Error corrections

- ▶ **ALU02167196: Warnings thrown when performing software download using parallel migration**

Problem: In Node NANT-D debug-ssh is enabled and In NANT-E debug-udp is enabled. When i perform software download with reduce the following warning is generatedWarning [package 'SecureDebugTAndD', file: '/home/gelango/migration54/PBMT/54.078/lib/SecureDebugTAndD.pm',line :783]:Use of uninitialized value \$out[0] in pattern match (m//) at /home/gelango/migration54/PBMT/54.078/lib/SecureDebugTAndD.pm line 783.

Solution: Handled the --hosts options with different connecting behavior, through properly reset global variables.

2.134 V3.2.62

2.134.1 Error corrections

- ▶ **ALU02169438: Wrong error message getting displayed while running commit.pl**

Problem: While running commit.pl with a wrong oswp name, the scripts fails with a wrong error.

Solution: Proper error is thrown if commit.pl fails when wrong oswp is passed.

2.134.2 Error corrections

- ▶ **ALU02171432: Clone of ALU02169438.**

2.134.3 Error corrections

- ▶ **ALU02171179: ISAM connectivity through SSH from PBMT without debug mode fails**

Problem: While we run PBMT for any operation through SSH connectivity ISAM get fails with configured retrials.

Solution: SSH command has formed properly for non debug mode execution.

2.134.4 New requirement

- ▶ **ALU02171406: OFLMT and PBMT support to support R5201b to R5301 migration path**

Problem: R5201b to R5301 migration path should be supported by OFLMT and PBMT

Solution: R5201b to R5301 migration path support by OFLMT and PBMT is given.

2.134.5 Error corrections

- ▶ **ALU02171244: Configure SNMPv2C (Y/N) prompt is missing in new config.pl**

Problem: In new config.pl configure snmpv2C(Y/N) is missing.

Solution: Confirm prompt for SNMPV2 has added now.

2.135 V3.2.61

2.135.1 Error corrections

- ▶ **ALU02167211: Warnings thrown when statuscheckcompare in parallel migration**

Problem: When running status check compare after migration using parallel migration a warning is thrown Warning [package 'ToolCommon',file:/home/gelango/migration54/PBMT/54.078/lib/ToolCommon.pm', line:1659]: print() on closed filehandle \$nodeLogFh at /home/gelango/migration54/PBMT/54.078/lib/ToolCommon.pm line 1659.

Solution: Debugging is enabled for ToolCommon module in statuscheckcmp.

2.135.2 Error corrections

- ▶ **ALU02166695: Precheck failing in NRNT-A when performed via ssh**

Problem: When i run precheck.pl it is failing with the below error Died [package 'ToolCommon', file: '/home/gelango/migration54

/PBMT/54.075/lib/ToolCommon.pm', line: 1658]:
Can't use an undefined value as a symbol reference at
/home/gelango/migration54/PBMT/54.075/lib/ToolCommon.pm line 1658

Solution: Provided required checks, Before log statement for debugging

2.136 V3.2.60

2.136.1 New requirement

► ALU02146866: Improvement in PBMT

Problem: Some PBMT improvement tasks are identified. Include libraries that are missed in PrintLibVersions subroutine in all PBMT scripts. SSH prompt settings change for efficiency. Reengineering of the PbmtConfig.pm to include some pre-validation in the configuration step itself and to maintain the order of the prompts. Better error reporting must also be handled.

Solution: The improvement tasks are done.

2.136.2 Error corrections

► ALU02163612: Software download using sftp, reduce and hosts options is not working.

Problem: When we do software download using sftp + reduce + hosts option, it's failing with error SW reduction failed: SW reduction ended prematurely: 10006: Get OSWP failed.

Solution: SFTP reduced download with --hosts option will work fine now.

2.136.3 Error corrections

► ALU02160776: Statuscheck pre failing if cli telnet and tl1 ssh along with automatic host update enabled

Problem: Enable cli telnet tl1ssh and enable UPDKNOWNHOSTFILE=Y in param.cfg. Run statusCheck pre it will fail.

Solution: Automatic host update feature is introduced for TL1 ssh also.

2.137 V3.2.59

2.137.1 Error corrections

► ALU02160793: precheck in case of parallel migration with one node in ssh and second node in telnet fails

Problem: In parallel migration i have one node in ssh another node in telnet first node is passing but second node precheck is failing.

Solution: While using --hosts option if ssh is configured in first node and telnet in second node, opening CLI will be done accordingly and the scripts will pass.

2.137.2 Error corrections

- ▶ **ALU02160777: Error has to be printed for customer understanding if a wrong file path is given for hosts**

Problem: For hosts if a wrong file path is given by mistake in config.pl some error has to be displayed to indicate the mistake done by customer.

Solution: If wrong host file path is configured in Config.pl, proper error is reported.

2.138 V3.2.58

2.138.1 Error corrections

- ▶ **ALU02156544: Functional Testing: Better error reporting and Validations**

Problem: Error message could be of more clarity if local/system wide does not exist. Error message could be more appropriate for end user understanding. When user gives local host filename as directory no error is reported.

Solution: Better error reporting is handled. Validation like the configured known hosts file is a directory or not is done.

2.139 V3.2.57

2.139.1 Error corrections

- ▶ **ALU02151998: [SRNT-C]- statuscheckcompare gets failed while doing migration from build 5101.515 to 5301.426**

Problem: While doing migration from build 5101.515 to build 5301.426, statuscheckcompare is failing because of configuration mismatch.

Solution: When migration is done to 53 release from any of the previous release, the statuscheckcmp will not fail due to the mismatch in the configuration (network-vlan to l2-forwarder-vlan) between the 2 releases.

2.140 V3.2.56

2.140.1 New requirement

- ▶ **ALU02145791: Known Hosts file automatic update (migration) - changes after code review**

Problem: When we create an alias to the ssh command the behavior of PBMT should not be affected. Check the read/write permissions of the known hosts files and their parent directories as a pre-validation step.

Solution: New Requirement to handle Automatic update to known hosts file.

2.141 V3.2.55

2.141.1 Error corrections

- ▶ **ALU02148679: Migration Fails in redundant NANT-E setup from 44.726 to 5301.419**

Problem: When I perform Migration from 44.726 to 5301.419 with NT-A active and NT-B standby, it is failing.

Solution: T&D login and password varies for Linux and Solaris. And it is adapted in all the shell scripts of the PBMT.

2.141.2 Error corrections

- ▶ **ALU02146451: snmpv2 community parameters is not getting preference when given through cli in minimise**

Problem: When already a snmpv3 user is configured in config.pl and after which when i try to run minimise with snmpv2 minimise.pl is failing.

Solution: Whatever options given in command line should overwrite the value in param.cfg in Minimize.pl.

2.142 V3.2.54

2.142.1 Error corrections

- ▶ **ALU02144580: [7363 NGVR]Migration should fail, if new CDE is not available**

Problem: When do migration, if new CDE can't be downloaded. Migration should fail and report error. But 7363 can migration success, just CDE is empty.

Solution: Addition of voice board which are applicable for NGVR platform in the check for voice board recognized by PBMT to resolve the issue.

2.142.2 Error corrections

- ▶ **ALU02148010: Clone of ALU02144580**

2.142.3 Error corrections

- ▶ **ALU02148008: Clone of ALU02144580**

2.143 V3.2.53 (skipped)

2.144 V3.2.52

2.144.1 New requirement

► ALU02142016: Known Hosts file automatic update (migration)

Problem: Known Hosts file should be automatically updated if the operator sets in the param.cfg

Solution: Known hosts file will be automatically updated if the operator sets the key in param.cfg. Otherwise the normal behaviour is continued.

2.145 V3.2.51

2.145.1 Error corrections

► ALU02138432: Migration fails from FGN44 to FGN4401

Problem: Migration fails with SNMPv3 in FGN4401.

Solution: Use the complete from and to release number information (taking into account the build numbers) via Capability model for identifying the source and target db versions. This would ensure that migration is enforced when the source and target db versions are different and upgrade when the db version is the same.

2.146 V3.2.50

2.146.1 Error corrections

► ALU02139820: SNMPV3 with authentication and without privacy Fails in a particular scenerio

Problem: Running precheck by specifying the snmpv3 parameters using cli without modifying anything in config.pl this error is got "Could not open SNMP session: Received usmStatsUnsupportedSecLevels.0 Report-PDU with value 9 during synchronization [Error]".

Solution: Handle the provision to handle SNMP with authentication and no privacy mode. --v3auth 'username:password;protocol' --v3auth "".

2.146.2 Error corrections

► ALU02140678: SNMPV3 with authentication and without privacy Fails in a particular scenario

Problem: Running precheck by specifying the snmpv3 parameters using cli without modifying anything in config.pl this error is got "Could not open

SNMP session: Received usmStatsUnsupportedSecLevels.0 Report-PDU with value 9 during synchronization [Error]”.

Solution: Handle the provision to handle SNMP with authentication and no privacy mode. --v3auth 'username:password:protocol' --v3auth ''.

2.147 V3.2.49 (skipped)

2.148 V3.2.48

2.148.1 Error corrections

► ALU02140419: Unable to retrieve OSWP info by SNMP in R5301 and R54 in SRNT-D

Problem: When trying to download R54 OSWP in SRNT-D with R5301 as active, it fails to retrieve OSWP info via SNMP.

Solution: After retrieving the slot config info the prompt is split and so the further commands are not retrieved properly including the oswp info via SNMP. So after getting the slot config an enter is given so that the full prompt is got and then further commands are sent.

2.149 V3.2.47

2.149.1 Error corrections

► ALU02138450: SWDL+SFTP+Reduce Fails in NANT-E as well as AGNT-A

Problem: When i run SWDL+Reduce using SFTP protocol in NANT-E as well as AGNT-A it is failing with the following error. SW reduction failed: SW reduction ended prematurely: 10013: Put SWP failed.

Solution: Put method fails when it trying to change the file properties and permission on the remote server setstat. In sftp, some servers are configured in such way to not change the file properties. There is a solution in Net::SFTP::Foreign cpan page to solve the problem.

2.149.2 Error corrections

► ALU02138043: SWDL+SFTP+Reduce Fails in NANT-E as well as AGNT-A

Problem: When i run SWDL+Reduce using SFTP protocol in NANT-E as well as AGNT-A it is failing with the following error. SW reduction failed: SW reduction ended prematurely: 10013: Put SWP failed.

Solution: Put method fails when it trying to change the file properties and permission on the remote server setstat. In sftp, some servers are configured in such way to not change the file properties. There is a solution in Net::SFTP::Foreign cpan page to solve the problem.

2.149.3 Error corrections

► ALU02138449: SWDL+SFTP+Reduce Fails in NANT-E as well as AGNT-A

Problem: When i run SWDL+Reduce using SFTP protocol in NANT-E as well as AGNT-A it is failing with the following error. SW reduction failed: SW reduction ended prematurely: 10013: Put SWP failed.

Solution: Put method fails when it trying to change the file properties and permission on the remote server setstat. In sftp, some servers are configured in such way to not change the file properties. There is a solution in Net::SFTP::Foreign cpan page to solve the problem.

2.150 V3.2.46

2.150.1 Error corrections

► ALU02136122: statuscheckpost fails in 5202.537 after migrating from 5102.681

Problem: After migration from 5102.681 to 5202.537 when i run statuscheck post it is failing with the following info. Failed to retrieve outstanding alarms: Could not open TL1/SSH: Timed-out after waiting for command prompt on login.

Solution: After successful login, the script is waiting for a second prompt considering that junk characters will be received after the login and the usage text will be received after that. When the usage text is received immediately after login the script keeps waiting for the second prompt and failing. Both these cases are handled.

2.151 V3.2.45

2.151.1 Error corrections

► ALU02135551: Warnings while running swdl.pl in i386 server

Problem: While running swdl.pl script in i386 server the following warnings occur. Useless use of \E at /var/opt/ams/users/amssys/PBMT/4401n.206/lib/Octopus.pm

Solution: The warnings are corrected. Proper error message is thrown if the uploaded DB is not present in the respective folder.

2.152 V3.2.44

2.152.1 New requirement

► ALU02132984: Include Net::SFTP::Foreign CPAN module

Problem: In PBMT while performing SFTP operations we used Net::SFTP module which internal support Net::SSH2 CPAN module. It has a drawback

that some system supporting (AES, DES-56) ciphers are not handled by Net::SSH2 Ciphers.

Solution: Net::SFTP::Foreign CPAN module internally use OpenBSD ssh model which make sure all system supporting ciphers are handled by Net::SFTP::Foreign module. SO we decide to replace Net::SFTP::Foreign module as a replacement for Net::SFTP module in PBMT's SFTP operations.

2.153 V3.2.43

2.153.1 New requirement

► ALU02129706: PBMT changes to support R54

Problem: PBMT changes must be done to support ISR54.

Solution: PBMT support for ISR54 is given.

2.154 V3.2.42

2.154.1 New requirement

► ALU02129706: PBMT changes to support R54

Problem: PBMT changes must be done to support ISR54.

Solution: PBMT support for ISR54 is given.

2.155 V3.2.41

2.155.1 New requirement

► ALU02128204: PBMT changes to support new DB version in FGN4401

Problem: PBMT changes to support new db version in FGN4401 DB version will be P4.401

Solution: PBMT support for new db version P4.401 is given.

2.156 V3.2.40

2.156.1 New requirement

► ALU02126210: Support for SRNT-G and SRNT-H in PBMT

Problem: PBMT should support new NTs like SRNT-G and SRNT-H.

Solution: PBMT support for SRNT-G and SRNT-H is given.

2.157 V3.2.40

2.157.1 Error correction

► ALU02124252: SWDL reduce with SFTP failing in cli-ssh

Problem: When executed SWDL+reduce in cli-over ssh in 7302 NANT-E it is failed with the below error Failed to retrieve planned configuration: info configure equipment slot flat yields no response... 'No lines copied: info configure equipment slot flat (command timed-out)

Solution: Failed to retrieve planned configuration: info configure equipment slot flat yields no response... 'No lines copied: info configure equipment slot flat (command timed-out)

2.157.2 Error correction

► ALU02119959: SWDL reduce with SFTP failing in cli-ssh

Problem: When executed SWDL+reduce in cli-over ssh in 7302 NANT-E it is failed with the below error Failed to retrieve planned configuration: info configure equipment slot flat yields no response... 'No lines copied: info configure equipment slot flat (command timed-out)

Solution: Failed to retrieve planned configuration: info configure equipment slot flat yields no response... 'No lines copied: info configure equipment slot flat (command timed-out)

2.158 V3.2.38

2.158.1 New requirement

► ALU02121885: PBMT changes to support new db version in R5301

Problem: PBMT changes to support new db version in R5301
DB version will be B5.301. build range - 300 to 599

Solution: PBMT changes were done to support new db version.

2.159 V3.2.37

2.159.1 Error corrections

► ALU02106733: NANT-E: ISAM rolled back, core-1 has triggered reset

Problem: After migration from R51(build 51.155) to R53 (build 53.111), core-1 has triggered reset during DB activation. ISAM rolled back to R51 without generating Core1 crash log and core dump file.

Solution: As per CORE-1 team request, At pre-migration we are updating IPD configuration file to remove 'IGMP Configuration' interfaces which are matched in 'Router network Configuraton interface. file would generate before and after systematically.

2.160 V3.2.36

2.160.1 Error corrections

► ALU02107668: swdl failure with reduce option on TFTP get

Problem: swdl failure with reduce option on TFTP get.

Solution: Read write permissions are enabled before the TFTP/SFTP get of L6GPAAxx.yyy during reduced download.

2.161 V3.2.35

2.161.1 Error corrections

► ALU02097338: statusCompare fails when migrating from 5201.440 to 53.089 build in NANT-A

Problem: In 53 release option network-vlan is replaced by l2-forwarder-vlan. Whenever a customer migrates from any prior release to 53 he will observe status checkcmp failure.

Solution: When migration is done to 53 release from any of the previous release, the statuscheckcmp will not fail due to the mismatch in the configuration (network-vlan to l2-forwarder-vlan) between the 2 releases. The change is made only for ETSI, HICAP and ETSINTT. For the remotes changes will be done when the parameter change is supported in remotes.

2.161.2 Error corrections

► ALU02107539: Migration: statusCheck issue, ERROR: Could not open cli for f21y.end2end.be

Problem: Migration: statusCheck issue, ERROR: Could not open cli for f21y.end2end.be

Solution: Whenever we get prompt, using echo statement confirm that we logged into ISAM successfully.

2.161.3 Error corrections

► **ALU02115198: MinimiseSwp.pl is failing with snmpv3 alone when clioverssh and tftp protocol is used**

Problem: Running Minimize.pl with snmpv3(no auth and no priv, with auth and priv) is failing with the below error
Get MibVersion FAILED (135.249.18.24 -.1.3.6.1.4.1.637.61.1.9.13.0):
Received authorizationError(16) error-status at error-index 0.

Solution: While running Minimize.pl with v3auth and v3priv, during the getContext the value for the context (nt) must be passed for the script to be successful.

2.162 V3.2.34

2.162.1 Error corrections

► **ALU02102265: Ont DownloadActivate script failed to add ONT SW CTRL table entry**

Problem: Due to legacy behavior the ONT DownloadActivate script truncates the ONT Hardware version to 10 characters and adds a wild-card character to check the ONT SW control table entries and updates the ONT SW to be downloaded entry correspondingly. This causes ONT SW control entries having a 14 character Hardware version to be skipped and the script tries to add a new ONT Control entry instead resulting in the failed TL1 command.

Solution: The script has now been adapted to consider 14 chars while checking the ONT SW control table entries for connected and not-connected ONT's.

2.163 V3.2.33

2.163.1 Error corrections

► **ALU02111830: Mig Warning message in swdl.pl**

Problem: A warning message is seen while running swdl.pl (SFTP+REDUCE+SNMPV2)

Solution: Definition of variables are checked before it's use to avoid warning messages.

2.163.2 Error corrections

► ALU02107196: PBMT 3.2.26 manual s/w download on AT&T Solaris NOK

Problem: Running the swdl.pl command manually on an AMS 5520 9.2.30P7 system. The download process completed (after about four hours!), due in large part to the 100ms delay between the AMS and the nodes. However, the swdl.pl process failed to terminate.

Solution: When the download is interrupted due to NT restart or some other reasons, response is not got from the NE for PBMT commands. Due to which PBMT keeps sending the commands infinitely. Now even if the response is not received from the NE, PBMT handles this case correctly and exits with proper error.

2.163.3 Error corrections

► ALU02109766: Mig PBMT infinite loop if login credentials are wrong and cli access is ssh

Problem: PBMT goes to an infinite loop(printing environment no more forever) if login credentials are wrong and cli access is ssh.

Solution: Whenever we get prompt, using echo statement confirm that we logged into ISAM successfully.

2.163.4 Error corrections

► ALU02112322: SNMPv3 username is not getting preference in Minimiseswp.pl

Problem: In SNMP v3 connection, there is a option to handle the username alone we have handled No authentication and No privacy. This is not handled in MinimizeSWP.pl PBMT script execution.

Solution: Feature has included to handle username alone in MinimizeSWP.pl -v3auth to process No authentication and No Privacy mode.

2.164 V3.2.32

2.164.1 Error corrections

- ▶ **ALU02110266: StatusCheckpre is Failing in NANT-A,NRNT-a when it is done via cli-ssh,TL1-ssh**

Problem: Statuscheck with pre option is failed with SSH connection error message for some hardware items.

Solution: Made sure timeout for SSH connectivity for all hardware modules are same in statusCheck.

2.165 V3.2.31

2.165.1 Error corrections

- ▶ **ALU02110712: PBMT support for 7367 SX-16VP**

Problem: PBMT needs to adapt for new HW 7367 SX-16VP.

Solution: Support for the new HW 7367 SX-16VP is added in capability model of PBMT.

2.165.2 Error corrections

- ▶ **ALU02104915: Error needs to be altered For better Customer understanding**

Problem: In PBMT, for some scenario's it is give error message as same as exit code and then exiting the execution. There is no log file and log message is not there in terminal/STDERR. MinimizeSWP.pl doesn't handle SNMP V2 and SNMP V3.

Solution: We made sure, before exiting the execution, It is providing proper error message for the reason to exit the execution. We have included to handle SNMP v2 and SNMP v3 in Minimize SWP to create SNMP connection.

2.166 V3.2.30

2.166.1 Error corrections

- ▶ **ALU02091141: Mig SWDB MGT is busy**

Problem: Rarely swdl fails with the following error
"Error: SWDB MGT error 22: SWDB MGT is busy: please retry later"

Solution: When the software management busy error or resource currently held by one manager error occurs while running the script, the PBMT will retry the operation for 5 times with an interval of 20 sec.

2.166.2 Error corrections

- **ALU02106765: swdl.pl --reduce option in SSH and SFTP used is failing, when first cli password is wrong**

Problem: In general, when we try to establish ISAM connection in PBMT with cli username and cli password credentials get failed. As agreed feature, It is not try to connect ISAM through username and clipassword2 in software download with reduce option.

Solution: As generic in PBMT, when connecting to ISAM with user-name and cli password credentials get fail then ensure PBMT try to connect isam with user-name and clipassword2 credentials.

2.167 V3.2.29

2.167.1 Error corrections

- **ALU02107712: PBMT 3.2.26 doesn't correctly pass password with special characters to post migration script**

Problem: Post Migration script fails to add new multicast range configurations when the password on the node contains special characters since the password gets truncated during call of Post Migration script.

Solution: Migrate script will pass the Username and Password parameters as a quoted string to the Post Migration script to avoid truncation of password.

2.168 V3.2.28

2.168.1 Error corrections

- **ALU02098661: PBMT 3.1.88.4 swdl.pl failed with SFTP error on GET action on OSWP file listing**

Problem: Reduced SFTP download is failing with SFTP get failure.

Solution: When reduced download is done using SFTP, the /Sw/OSWPx should be given read and write permission before the sftp get of L6GPANxx and L6GQANxx to avoid get failure.

2.169 V3.2.27

2.169.1 Error corrections

► ALU02031458: Migration tool issue of R4.6.03c

Problem: Migration with PBMT R4.6.03c & R4.5.03i showed that NBTW.exe, was not found in a specific path.

Solution: When a new IVPSTDBTOOL path is given for Solaris Sparc platform in param.cfg the same has to be updated in the PBMT and used for precheck and migration.

2.170 V3.2.26

2.170.1 Error corrections

► ALU02097337: swdl with reduce option fails when the reduced descriptor file already exist

Problem: This happens after swdl failure for some reason. Further attempts with reduce option fail until the reduced descriptor file is removed from the compact flash.

Solution: When reduced download is done, the PBMT checks whether the L6GQRN and L6GPRN files are already present in the ISAM. If it is present and the sizes of the existing files and new files are same the PBMT skips the download of those files. If the sizes are different it removes the existing files and download the new files to the ISAM. If the files are not present in the ISAM it downloads the files.

2.171 V3.2.25

2.171.1 Error corrections

► ALU02095810: precheck and swdl is failing in AGNT-A

Problem: In AGNT-A if we have login-banner precheck is failing the following error is displayed ERROR: Could not open cli for 135.249.18.19: Timed out while waiting for some alive indication. In AGNT-A if we try to download a software along with reduce option swdl is failing the following error is displayed. Can't call method "host" on an undefined value at /home/gelango/mig5201/AGNTA/52.430/PBMT/lib/IsamCli.pm line 1313.

Solution: The Reduce download is now removing Secure T& D feature related changes to resolve the issue since Secure T& D via PBMT is not applicable for R52.

2.172 V3.2.24

2.172.1 Error corrections

- ▶ **ALU02093886: Swdl.pl and Migrate.pl scripts login to CLI terminal to fetch data for a wrong slot index.**

Problem: Swdl.pl and Migrate.pl scripts generally login to CLI terminal and tries to execute some CLI commands, in which some CLI commands have wrong index.

Solution: If the NE supports only one NT the PBMT scripts will display the slot information of that NT alone

2.173 V3.2.23

2.173.1 Error corrections

- ▶ **ALU02095460: precheck and swdl is failing in AGNT-A**

Problem: In AGNT-A if we have login-banner precheck is failing & also download a software along with reduce option swdl is failing

Solution: The Reduce download is now removing Secure T& D feature related changes to resolve the issue since Secure T& D via PBMT is not applicable for R52

2.174 V3.2.22

2.174.1 Error corrections

- ▶ **ALU02087249: [OntStage] Incorrect Total Files number in log file**

Problem: Running onstage script to download the new ONT software to the ISAM displays wrong total number of files downloaded.

Solution: The correct variable containing the number of files downloaded successfully is used to print in the logfile.

2.175 V3.2.21(skipped)

2.176 V3.2.20

2.176.1 Error corrections

- ▶ **ALU02075340: status check compare fails when v3 authentication is used in pre, post and compare in agnt-a**

Problem: Statuscheck pre, post and compare with V3 authentication and privacy status Checkcompare fails as “Line info not according to expected Syntax”

Solution: The XDSL configuration are checked for its presence and assigned a default value if not present in StatusCheck HiCap script.

- ▶ **ALU02083077: Precheck.pl, swdl.pl, migrate.pl, statuscheck.pl ,statuscmp.pl not ok with v3 authentication**

Problem: PBMT scripts fail while SNMP v3 username and password contains ':' in them.

Solution: If the snmp v3 username and password contains ':' the PBMT parses it correctly. The username and password has to be given in single quotes and the entire --v3auth and --v3priv value has to be given in double quotes in command line if it contains ':'.

- ▶ **ALU02084364(and clone ALU02084363): Can't find CDE_FILE_PATH at configure file when do PBMT migration**

Problem: During Migration from R4.3 to R5.0/R5102x the CDE files are not untarred, hence these contents are not migrated. In PBMT we need to enable voice CDE migration support for post R4.3 releases also.

Solution: For source release newer than R4.3 the untar of CDE files now is enabled to perform CDE voice migration

2.176.2 Error corrections

- ▶ **ALU02087591: GetOswpFromFW & integration of other implementations for SecureDebug via SSH**

Problem: Adaptation of existing libraries to support GetOswpFromFW Implementation of Secure T&D feature & integration of other implementations for SecureDebug via SSH

Solution: Modification on SecureDebugTAndD.pm to support GetOswpFromFW Implementation and also other impacted script modified to support the integration with reduced software download operation.

2.177 V3.2.19

2.177.1 Error corrections

- ▶ **ALU02083844: PBMT 3.1.88.1 throws warnings during software download and migration**

Problem: While doing swdl and migration with the PBMT 3.1.88.1 the following warnings are thrown Warning [package 'IsamCli', file: PBMT/4310d_prime/lib/IsamCli.pm',line:974]:Use of uninitialized value in pattern match (m//) at PBMT/ 4310d_prime/lib/IsamCli.pm line 974.

Solution: A check is introduced to see if the variable is defined or not to avoid the warnings.

2.178 V3.2.18

2.178.1 Error corrections

- ▶ **ALU02060588: SNMPv3 configured in param.cfg not overridden by SNMPv2 in command line**

Problem: Software download throws the following error while trying to override SNMPv2 in command line over v3 in param.cfg

Solution: When SNMP V3 is configured in param.cfg and V2 is given in command line, the PBMT will take V2 (whatever version given in the command line).

- ▶ **ALU02063817: [MIGR]: StageONT: ONT-sw of 1 hwtype not downloaded on ISAM**

Problem: Whenever ONT-migration tried on ONTs using Stageont-script with the same HW-mnemonic but with different hw-version and different SW, then one of the new ont-sw's is not downloaded on the ISAM and also observed that the ontDownloadandActivate.script also failing.

Solution: Staging script is modified to use a new API that uses hardware information apart from mnemonic & variant for finding matching SW from the release map file. Due to this, all the matching SW (instead of single SW) returned from Release mapping file and hence all the matching SWs will be staged successfully. With this fix on stageONT, no issue was reported with ontDownloadandActivate.script as well.

2.179 V3.2.17

2.179.1 Error corrections

- ▶ **ALU02078593: PBMT to pass user credentials while invoking post migration script**

Problem: PBMT need to pass the cli user credentials while invoking the Post migration script for LRM purpose since LRM will run the scripts by sending these values via command line. The perl path also needs to be passed while calling the post migration script from migrate.pl. This change is required since LRM uses command line parameters to pass the user credentials and does not use param.cfg settings for these parameters.

Solution: Migrate script will pass the username and password to the post migration script and invokes it using the PERL path configured in param.cfg

2.180 V3.2.16

2.180.1 Error corrections

► **ALU02082098: Can't find CDE_FILE_PATH at configure file when do PBMT migration**

Problem: During Migration from R4.3 to R5.0/R5102x the CDE files are not un-tarred, hence these contents are not migrated. In PBMT we need to enable voice CDE migration support for post R4.3 releases also.

Solution: For source release newer than R4.3 the un-tar of CDE files was not taking place, now this check has been removed to enable cde voice migration for source releases greater than 4.3

2.181 V3.2.15

2.181.1 Error corrections

► **ALU02080786: Lanx release 1.77 support in PBMT**

Problem: Lanx release 1.77 support in PBMT

Solution: PBMT capability is adapted to have 1.77 as highest SHUB version

2.182 V3.2.14

2.182.1 Error corrections

► **ALU02074206: Many warnings are thrown when we run StatusCheck pre and post with V3-authentication**

Problem: When the status check script ran with pre and post with v3 authentication and privacy, there were some warnings are thrown

Solution: The status check script is modified to check the presence of XDSL line values before writing into result file to resolve the issue.

2.183 V3.2.13

2.183.1 Error corrections

► **ALU02069878: When login and welcome banner is set, Precheck.pl,statuscheck.pl,swdl.pl failing in 5201.367**

Problem: When trying to run precheck.pl, statuscheck.pl -pre, swdl.pl, all the three scripts are failing displaying the following error “Timed out while waiting for some alive indication”.

Solution: When running a PBMT script certain login banner fails with some Linux servers. The login banner is received in parts and the login phase fails. The PBMT is modified to handle any type of login banner.

► **ALU02072681 : upgrade.pl,migrate.pl fails with remap option in linux server**

Problem: upgrade.pl,migrate.pl fails with remap option in linux server

Solution: The shell script (mapNonRecov.sh) is modified to point to correct location of ping utility for Linux platform to resolve the issue.

► **ALU02062224 : Available SW files not updated when downloading OSWP**

Problem: When downloading an identical OSWP (or slightly modified OSWP of the same release) the PBMT tool will fail due to an SFTP error. For example, when downloading a new OSWP, the online removes boards that are not installed or planned and after that PBMT tells the system to download an identical or almost identical OSWP. This means that the files that were just reduced are downloaded again. Even though PBMT issues "show software-mgmt swp-disk-file" command to determine whether any files are not-available, unfortunately output of that command shows that some of the files that were removed and re-downloaded are not-available even though it is present under /Sw directory.

Solution: The solution was designed(for TFTP) in such a way that, we interpret the TFTP error message for the specific SW file(during the TFTP put) and if the error message is due to "No write permission", we would check the specific SW's presence in ISAM via Octopus. We will skip the TFTP put of the specific files if they are already present to avoid the TFTP failure.

Similarly for SFTP, we will check the presence in ISAM and skip the SFTP put for the specific SW missing file which are already present.

► **ALU02063817 : [MIGR]: StageONT: ONT-sw of 1 hwtype not downloaded on isam**

Problem: During ONT migration using StageONT.pl, the ONTs of same Hardware having more than one matching SW present in release mapping file, then one of the new ont-sw's are not downloaded on ISAM

Solution: Staging scrip is modified to use a new API that uses hardware information apart from mnemonic & variant) for finding matching SW from

the release map file. In this way, the new API will return all SW (instead of single SW) and all the matching SWs will be staged successfully.

2.184 V3.2.12

2.184.1 New Requirement:

► ALU02073720 : PBMT support to migrate IGMP multicast tables

Problem: PBMT/OFLMT has to support migration of IGMP multicast tables by introducing key-value pair to make the IGMP Multicast setting in OFLMT configuration file for Forced multicast table cleanup or a selective multicast cleanup. OFLMT will read this IGMP multicast setting and activate the migration.

Solution: PBMT will have new command option `-igmpmcrange` in the migrate script to use the feature. This parameter can take three values Selective (SEL) / Forced (FOR) / Unused (UNU). Depending on the option set the migration of IGMP Multicast tables will be triggered via OFLMT tool. This option can also be set by running PBMT script Config.pl to store the configuration setting in param.cfg. The default setting is Unused ("UNU") wherein the feature will not be used. When this command option is not provided the option set in the param.cfg file will be used."

2.184.2 Error corrections

► ALU02069878: When login and welcome banner is set, Precheck.pl,statuscheck.pl,swdl.pl failing in 5201.367

Problem: When trying to run precheck.pl, statuscheck.pl -pre, swdl.pl, all the three scripts are failing displaying the following error "Timed out while waiting for some alive indication".

Solution: When running a PBMT script certain login banner fails with some Linux servers. The login banner is received in parts and the login phase fails. The PBMT is modified to handle any type of login banner.

2.185 V3.2.11

2.185.1 Error corrections

► ALU02057368: PBMT warning message observed while using --comm option in ANSI

Problem: The SNMP User setting is accessed without proper initialization when community settings are present & hence this warning is reported.

Solution: The SNMP User setting is initialized properly before accessing the settings to resolve the issue.

The issue was present in Upgrade alone and hence the solution is provided for the same.

► **ALU02074229 : PBMT changes to support R5001e/R5200a**

Problem: This is a requirement to support migration from R5001e --> R5.200a release stream for 7363 platform.

Solution: Capability model in PBMT has been updated to provide support for R5.001e to R5.200a path only for 7363 platform

2.186 V3.2.10

2.186.1 New Requirement:

► **ALU02071478: PBMT support of EnableReadWrite Implementation Secure T&D**

Problem: A new PERL module & adaptation of existing libraries to support EnableReadWrite Implementation of Secure T&D feature

Solution: Modification is done on PERL module named as “SecureDebugTAndD.pm” to support the adaptation to IsamCli is added to support EnableReadWrite Implementation of Secure T&D feature

2.187 V3.2.9

2.187.1 Error corrections

► **ALU02066921: DB migration fails from R5.0.1d to R5.1.1b for ISAM SX/DX**

Problem: The PBMT capability does not support SRNT-C/SRNT-E NT boards & hence it reports error as “no defined NE family” for this NE during Migration

Solution: PBMT Capability is modified to support SRNT-C and SRNT-E NT board types for the below releases

SRNT-C: Detected from R50.x & Supports migration to R51.x, R52.x, R53.x

SRNT-E: Detected from R4.6.x, R5.x & supports migration to R51.x, R52.x & R53.x

2.188 V3.2.8

2.188.1 Error corrections

► ALU02062081: **statusCheck.pl TL1 login fails if system id contains SARB**

Problem: When the System ID has “SARB”, status check reports an error with TL1 login since it incorrectly interprets the System ID as “System busy” response. The issue is due to the fact the word “SARB” in TL1 response is treated as system busy when system id contains “SARB”

Solution: The TL1 library that handles TL1 responses would match for exact error code format for SARB to distinguish it even the system ID contains word “SARB”

2.189 V3.2.7

2.189.1 Error corrections

► ALU02059235: **swdl script fails showing error "Failed to get OSWP info from firmware"**

Problem: While running swdl.pl for downloading 5201.339 build on NANT-D and precheck on 52.130 build, the scripts fail with the following error “5011: Failed to retrieve OSWP info: Failed to get OSWP info from firmware [Error]”.

Solution: When the CLI fails to retrieve the OSWP information the PBMT gets the information from the firmware. The octopus session ping and login were corrected.

► ALU02055373: **preCheck.pl fails while upgrading from 52 to 5201**

Problem: preCheck.pl throws the following error while upgrading from 52 to 5201 “***FATAL** NT OFLMT version too high for the version of this toolset”.

Solution: The highest possible NT OFLMT version is increased for 5201.

► ALU02061738: **Reduce software download fails while using --host option**

Problem: When reduced software download in TFTP mode is triggered, the Software descriptor files is modified for location of the reduced SWP file. But during the reduced SW download with host option, this location was

incorrectly written as <TFTPWORK-DIR>/<IP>/<SWP> instead of
<TFTPWORK-DIR>/HOST-FILE-DIR>/<SWP>

Solution: Reduce Perl module that recreates OSWP for reduced will create entry as <TFTPWORK-DIR>/HOST-FILE-DIR>/<SWP> when host option is used

2.190 V3.2.6(skipped)

2.191 V3.2.5

2.191.1 New requirement

► ALU02063854: PBMT changes to support ISR 5.3

Problem: Changes must be made in PBMT to support R53.

Solution: Changes were made in the required PBMT scripts to support R53.

2.192 V3.2.4(skipped)

2.193 V3.2.3

2.193.1 Error corrections

► ALU02055435: PBMT: DownloadMissingFiles function not using SFTP when it should

Problem: When the ISAM is set to use SFTP for the file transfer protocol, and configured as an SFTP client, the PBMT's DownloadIsam7302Ansi::DownloadMissingFiles function does not use the SFTP transfer protocol to place missing files on the NE. It attempts to use tftp, which fails in a timeout.

Solution: PBMT will use SFTP as the transfer protocol instead of TFTP to place the missing files on the ISAM.

2.194 V3.2.2

2.194.1 Error corrections

► ALU02055812: [MIGR]: ontDownloadandActivate: multiple SWVERCTLERR/SWVER-alarms generated

Problem: The ontDownloadandActivate will generate a bunch of alarms (SWVERCTLERR and SWVER)since the variant information is updated before having corresponding control entry present for it HW type

Solution: The planned variant update of the ONT will be done only if the corresponding Control entry for it HW type already present. Also we are avoiding ONT variant of different HW types being updated together (in bulk update).

3. Prerequisites

Please refer to the customer documentation about the generic prerequisites.

In case a hardware migration of ECNT-A to ECNT-C is attempted, it is required to use version 1.26 of the SHUB migration tool. The PBMT toolset will issue warning in case this migration is attempted and a too low version of the SHUB offline migration tool is being used.

Hardware prerequisites

None.

Other prerequisites

The migration tools (for NT and Service HUB) used by the PBMT toolset are delivered separately.

4. Contents of the PBMT package

4.1 Delivery Information

	Item Number	Description
SWPA	3FE 28567 AAAA	Migratelsam.3.3.98.tar.gz Gzipped tar file:
		./migrate.pl
		./swdl.pl
		./upgrade.pl
		./commit.pl
		./cleanup.pl
		./exitCode.pl
		./MinimizeSWP.pl
		./preCheck.pl
		./Config.pl
		./stageont.pl
		./ontDownloadandActivate.pl
		./statusCheck.pl
		./statusCheckCmp.pl
		./rollback.pl
		./mapVoicelp2oam.pl
		./convertCcEngine.pl
		./ppp2pppipoe.pl
		./ipAware2lbridge.pl
		./chgNwVlan.pl
		./RemotesUplinkConfig
		./CHKCwarning.txt
		./PRCKwarnings.txt
		./sftpClient.pl
		./dbCheck.pl
		./3EC-36420-3056-DGZZA.csv

		./netypes.txt
		./racktypes.txt
		./shelftypes.txt
		./boardtypes.txt
		./lib/Capability.pm
		./lib/DM.pm
		./lib/ErrorCodes.pm
		./lib/FamilyCommon.pm
		./lib/FileTransfer.pm
		./lib/IsamCli.pm
		./lib/Isam7342TL1.pm
		./lib/IsamTL1.pm
		./lib/Isam7354RUCli.pm
		./lib/Migratelsam7302.pm
		./lib/Migratelsam7302Etsi.pm
		./lib/Migratelsam7302EtsiNtt.pm
		./lib/Migratelsam7302Ansi.pm
		./lib/Migratelsam1540.pm
		./lib/Migratelsam7302HiCap.pm
		./lib/Migratelsam7367.pm
		./lib/Migratelsam7354.pm
		./lib/CommitIsam7302.pm
		./lib/CommitIsam1540.pm
		./lib/CommitIsam7302Hicap.pm
		./lib/CommitIsam7354.pm
		./lib/CommitIsam7363.pm
		./lib/CommitIsam7367.pm
		./lib/DownloadIsam7302.pm
		./lib/DownloadIsam7302Ansi.pm
		./lib/DownloadIsam7302Etsi.pm
		./lib/DownloadIsam1540.pm

		./lib/DownloadIsam7302EtsiNtt.pm
		./lib/DownloadIsam7302HiCap.pm
		./lib/DownloadIsam7342.pm
		./lib/DownloadIsam7354.pm
		./lib/DownloadIsam7363.pm
		./lib/DownloadIsam7367.pm
		./lib/Octopus.pm
		./lib/ONT7302HiCap.pm
		./lib/OntDIAct7302HiCap.pm
		./lib/PbmtConfig.pm
		./lib/PreCheckIsam.pm
		./lib/PreCheckIsam7302.pm
		./lib/PreCheckIsam7302Etsi.pm
		./lib/PreCheckIsam7302EtsiNtt.pm
		./lib/PreCheckIsam7302Ansi.pm
		./lib/PreCheckIsam1540.pm
		./lib/PreCheckIsam7302HiCap.pm
		./lib/PreCheckIsam7354.pm
		./lib/PreCheckIsam7367.pm
		./lib/ReduceSWP.pm
		./lib/RollbackIsam7302HiCap.pm
		./lib/RollbackIsam7302Ansi.pm
		./lib/StatusCheckCmplIsam7302.pm
		./lib/StatusCheckCmplIsam7302HiCap.pm
		./lib/StatusCheckCmplIsam7302Ansi.pm
		./lib/StatusCheckCmplIsam7302Etsi.pm
		./lib/StatusCheckCmplIsam7302EtsiNtt.pm
		./lib/StatusCheckCmplIsam1540.pm
		./lib/StatusCheckCmplIsam7354.pm
		./lib/StatusCheckCmplIsam7367.pm
		./lib/StatusCheckIsam7302.pm

		./lib/StatusCheckIsam7302Etsi.pm
		./lib/StatusCheckIsam7302EtsiNtt.pm
		./lib/StatusCheckIsam7302Ansi.pm
		./lib/StatusCheckIsam1540.pm
		./lib/StatusCheckIsam7302HiCap.pm
		./lib/StatusCheckIsam7354.pm
		./lib/StatusCheckIsam7367.pm
		./lib/StageONT7302HiCap.pm
		./lib/TAD.pm
		./lib/ToolCommon.pm
		./lib/Utils.pm
		./lib/Upgradelsam7302.pm
		./lib/Upgradelsam7302Ansi.pm
		./lib/Upgradelsam7302Etsi.pm
		./lib/Upgradelsam7302EtsiNtt.pm
		./lib/Upgradelsam1540.pm
		./lib/Upgradelsam7302HiCap.pm
		./lib/Upgradelsam7354.pm
		./lib/Upgradelsam7363.pm
		./lib/Upgradelsam7367.pm
		./lib/version.pm
		./lib/Net/Ping.pm
		./lib/Net/SNMP.pm
		./lib/Net/TFTP.pm
		./lib/Net/Telnet.pm
		./lib/perlTL1/UdpChannel.pm
		./lib/perlTL1/SshChannel.pm
		./lib/Crypt/Lite/pm
		./lib-perl/
		./lib-perl/standalone/Class
		./lib-perl/standalone/Compress

		./lib-perl/standalone/Convert
		./lib-perl/standalone/Crypt
		./lib-perl/standalone/Data
		./lib-perl/standalone/Digest
		./lib-perl/standalone/File
		./lib-perl/standalone/IO
		./lib-perl/standalone/Math
		./lib-perl/standalone/Net
		./lib-perl/standalone/Sort
		./lib-perl/standalone/Tie
		./lib-perl/standalone/User
		./lib-perl/standalone/auto
		./lib-perl/standalone/gmp-4.2.2
		./lib-perl/standalone/sun4-solaris-64int
		./lib-perl/standalone/i86pc-solaris-64int
		./lib-perl/standalone/i386-linux-thread-multi
		./lib-perl/standalone/x86_64-linux-thread-multi
		./lib-perl/perlSupplied/Net
		./tools/NT
		./tools/NT_ANSI
		./tools/NT_LS
		./tools/NT_GPON
		./tools/NT_HICAP
		./tools/Lanx
		./tools/Lanx_ANSI
		./tools/Lanx_LS
		./tools/Lanx_GPON
		./tools/IVPS
		./tools/ONT_Release_Mapping.txt
		./tools/octopus/dellssconf.sh
		./tools/octopus/delLanxZ.sh

		./tools/octopus/enableSw_RW.sh
		./tools/octopus/mapNonRecov.sh
		./tools/octopus/readOswpFW.sh
		./tools/octopus/readSwMgntIni.sh
		./tools/octopus/resetNT.sh
		./tools/octopus/resetNTred.sh
		./tools/octopus/shubLanxCopy.sh
		./tools/octopus/shubSwCheck.sh
		./tools/octopus/suspendTftp.sh
		./tools/octopus/syncLanxZ.sh
		./tools/octopus/resetShell.cmd
		./tools/octopus/sun4-solaris-64int/octopus
		./tools/octopus/i86pc-solaris-64int/octopus
		./tools/octopus/i386-linux-thread-multi/octopus

5. Installation Guide

This package can be unpacked using the Unix tar utility on top of the previous installation after having removed the files belonging to the previous package (most of the files have a read-only file attribute).

6. Documentation

The PBMT-toolset is documented in the ISAM SW Upgrade and Migration Application Procedures are provided on the SW distribution.