IBM® Tivoli® Software

IBM_® Tivoli_® Composite Application Manager for SAP Agent

Introduction and HOW TOs

Document version [1.4]

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REVISION HISTORY

Date	Version	Revised By	Comments
24-Jan-2013	0.1	Sarabjeet Bhatia	Initial document creation
20-Feb-2013	0.2	Sarabjeet Bhatia	Added Common issues
21-March-2013	0.3	Sarabjeet Bhatia	Added FAQs and Common issues
11-April-2013	1.0	Sarabjeet Bhatia	Final review and revise
29-May-2013	2.0	Sarabjeet Bhatia	Incorporated review comments by Harriet Johnson(L2 Team)
1-Oct-2013	1.1	Sarabjeet Bhatia	Version correction. It should be 1.1 instead of 2.0.
14-Oct-2013	1.2	Sarabjeet Bhatia	Added FAQs and Common issues from Q2+Q3 2013 PMR Analysis.
31-March-2014	1.3	Sarabjeet Bhatia	Added FAQs and Common issues from Q4-2013, Q1-2014 PMR Analysis.
30-Sep-2014	1.4	Sarabjeet Bhatia	Added FAQs and Common issues from Q2,Q3-2014, PMR Analysis.

1. Overview

1.1 How SAP agent collects data.

ABAP Function Module

Each attribute group gathers data from the SAP system through an ABAP function module supplied by the Monitoring Agent for mySAP. The name of that function module is provided here.

Data characteristics: Applies to

The monitoring Agent for mySAP collects data from single application servers (SAP instances) in an SAP system and from the SAP system as a whole. This field indicates whether an attribute group returns SAP instance data or SAP system data.

Data characteristics: Type

In an SAP environment, some attributes are available as snapshot data and others are computed over a given time span. All attribute groups that contain the sample_interval_end attribute are capable of returning data over a given time span.

By default, the situations provided by the agent request data for the time span that matches the situation sampling interval. By default, the workspaces provided by the Monitoring Agent for mySAP request data for the default time span. The default time span is defined per attribute group, and has been chosen so the agent does not put a significant load on the SAP system as it gathers the data. To change the default time span, use the /IBMMON/ITM_PERIOD transaction (see the "Maintain default sample periods" section of the *IBM Tivoli Monitoring for Applications: mySAP Agent User's Guide.*).

Data characteristics: Collected

In general, the Monitoring Agent for mySAP gathers data upon request to satisfy a workspace refresh (Tivoli Enterprise Portal), situation sampling of attributes (SIT), or historical data collection (HDC). All attributes in the attribute groups that make up a workspace or situation are gathered at that time. This field indicates which of the three kinds of data collection are supported for a particular attribute group.

Data caching:

The Monitoring Agent for mySAP uses caching in certain circumstances. The two types of data caching used by the monitoring agent are caching in the agent process and caching in the SAP system. The R/3 Alerts attribute group caches a list of alerts in the agent process memory. The attributes for this group are collected every nnn seconds, and cached. They are not collected on demand. The default value of nnn is 180 seconds, and can be modified in /IBMMON/ITM_PERIOD (see the "Maintain default sample periods" section of the *IBM Tivoli Monitoring for Applications: mySAP Agent User's Guide.*)

Within the ABAP function modules, the result data set is *always* retained in memory in the SAP system. This data is re-used for subsequent data collection requests for situations (not for Tivoli Enterprise Portal requests or HDC requests) if the data collection request is within ten wall clock seconds of the previous data collection request (of any kind including SIT, Tivoli Enterprise Portal, or HDC) and the following conditions are met:

The new time span is within the cached data time span (applies to time span data only).

The new instance is in the cached data (applies to instance specific data only).

The new aggregation level is the same as the cached data aggregation level (applies to transaction performance only).

Data collection: Mechanism

The ABAP function modules provided by the monitoring agent use various sources to gather their data including function modules supplied by SAP, SAP programs, SAP files, or internal tables. This field specifies how data is gathered for a particular attribute group.

Data collection: Speed/Expense

This field indicates how expensive in terms of time and resources the data collection is. The values range from fast and cheap to very slow and very expensive.

Data collection: Data volume

Almost all attributes groups return multiple rows for each data collection. This field provides some idea of the amount of data returned for each data collection.

Associated SAP transactions

This field lists the SAP transactions that display data corresponding to the data that is returned by the particular attribute group. For more information, See Technote: https://www-01.ibm.com/support/docview.wss?uid=swg21290247

1.2 Agent performance tuning and best practice

Refer the document "ITCAM for Application mySAP agent performance tuning best practice" You can find this here:

http://www-304.ibm.com/software/brandcatalog/ismlibrary/details?catalog.label=1TW10CP24

It contains a section on tuning and disabling CCMS alert monitoring. As instructed in the document, its suggests to disable the ?Entire System? Monitor first, and select specific monitor according to business requirements. In case that does not help, try disabling all monitors.

The steps are described in the document.

2. HOW TOS

Note: Section provides common issues/questions reported in PMRs. You can verify or involve SAP Admin / DBA before implementing any solution mentioned below.

2.1 Set more than three CCMS monitors Monitor Set.

Below is the procedure to increase the maximum number of monitors/monitor sets you can select using transaction /n/IBMMON/ITM CONFIG

- 1. Logon into the SAP GUI, and run the SE16 tcode.
- 2. Type /ibmmon/itm_cnfg as table name.
- 3. Look for a parameter called MAXIMUM_CCMS_MONITORS. If it exists, delete it.
- 4. Add a new entry with following information:

Name: MAXIMUM_CCMS_MONITORS

value_char: the value you need for "maximum number of selectable monitors" value_int: the value you need for "maximum number of selectable monitors"

E.g. name: MAXIMUM_CCMS_MONITORS

value_char: 5 value_int: 5

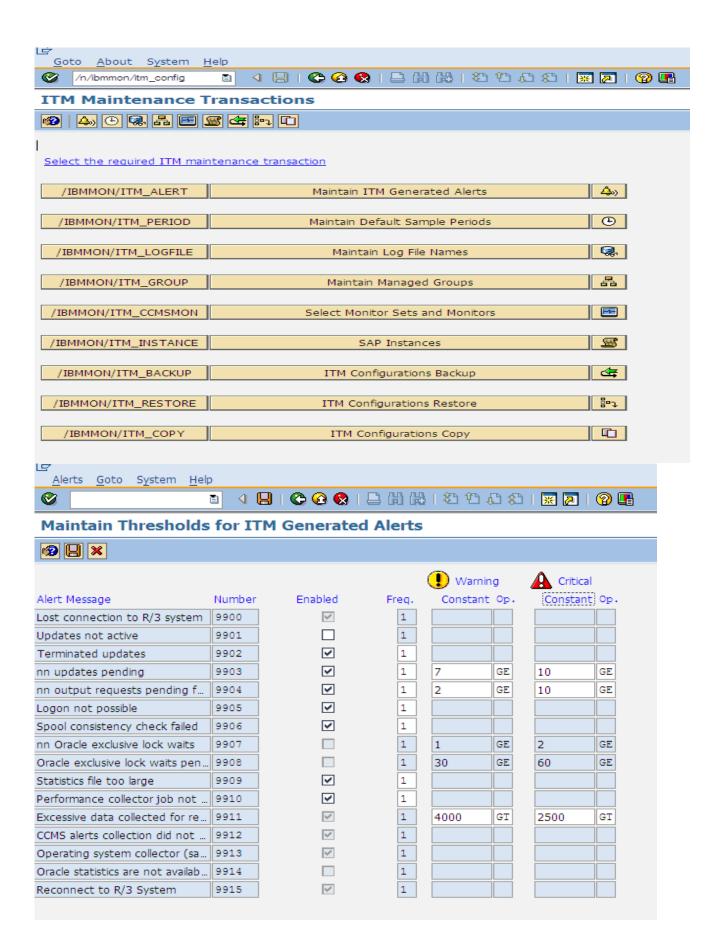
- 5. After the fourth step is completed, execute again a query for the /ibmmon/itm_cnfg table, and make sure that only one record exists for parameter MAXIMUM_CCMS_MONITORS.
- 6. Restart the agent, and run the /n/IBMMON/ITM_CONFIG transaction code to select the monitors you actually need.

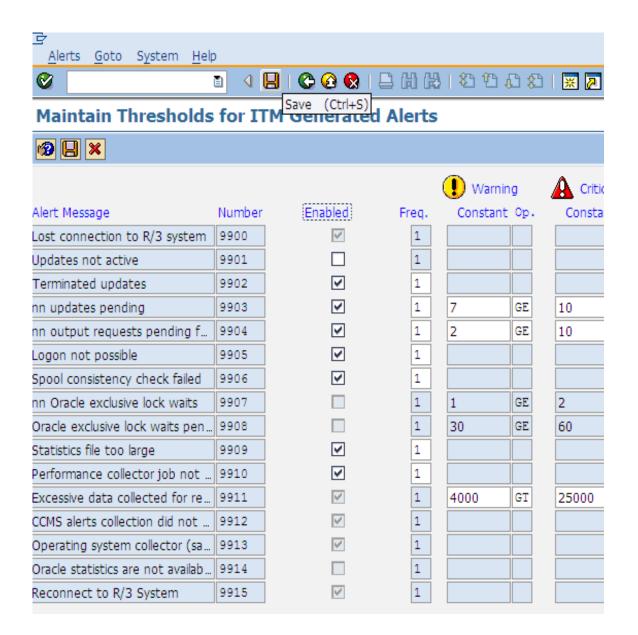
Note: You have to take into consideration the performance impact that can result by using too many monitors/monitor sets.

2.2 Set-CriticalConstant

- 1. Logon to the SAP system.
- 2. Run /n/ibmmon/itm_config transaction.
- 3. Click on maintain itm general alerts.
- 4. Change the value of 2500 entries in 'Critical Constant Op.' of 'Excessive data collected for report, nnnn rows deleted'.
- 5. Save with CNTRL+S to save the changed number.

Check the below screen shots for the same:



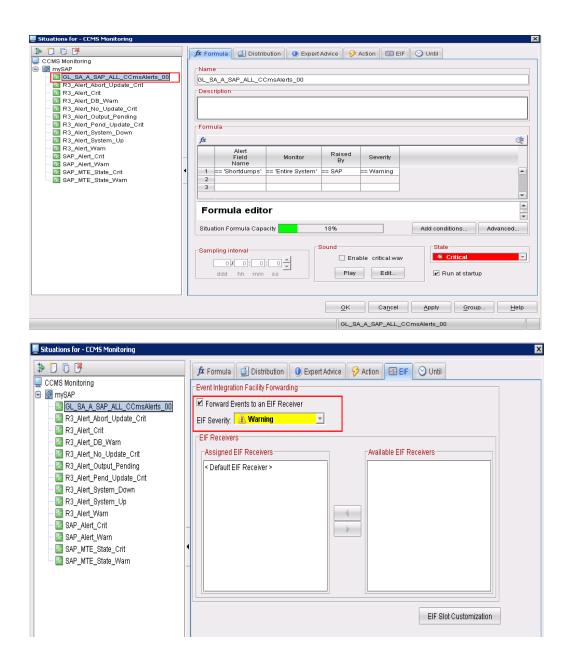


2.3 Automatically close the events on TEC:

Defined one situation for RED alert (GL_SA_A_SAP_ALL_CCmsAlerts_00) and other situation (GL_SA_A_SAP_ALL_CCmsAlerts_00_Done) for closer notification of same RED alert as below.

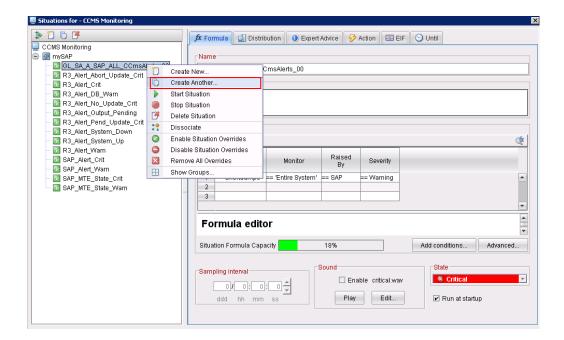
GL_SA_A_SAP_ALL_CCmsAlerts_00 situation definition :

Select "Forward Events to an EIF Receiver" to send events to TEC

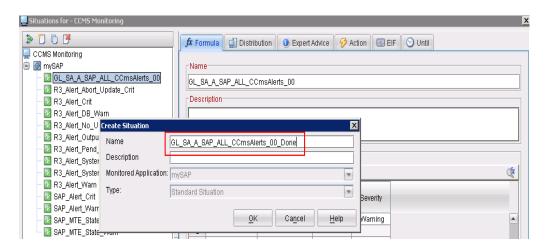


$GL_SA_A_SAP_ALL_CCmsAlerts_00_Done\ situation\ definition:$

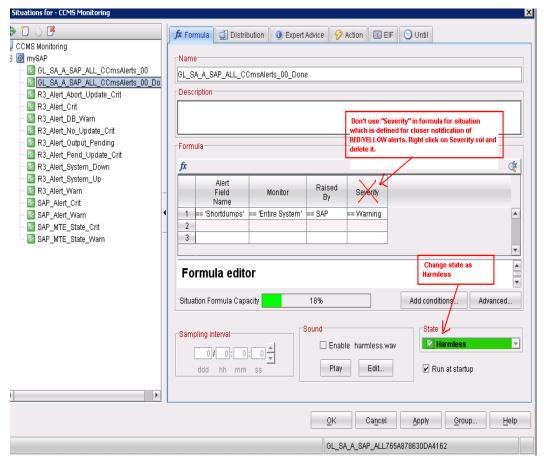
Right click on situation created to monitor RED/YELLOW alert (GL_SA_A_SAP_ALL_CCmsAlerts_00) and select "Create Another"



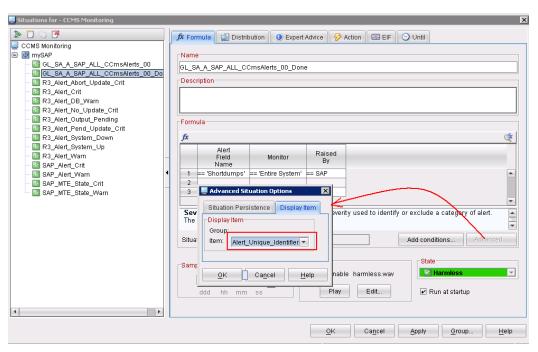
Provide name for other situation as shown below,



Change state to "Harmless" and delete "Severity" condition. Also don't use "Severity" or "Alert Severity" in a situation which is defined for closer notification of RED/YELLOW alert on SAP side. Here you can observe "Severity" condition is removed from GL_SA_A_SAP_ALL_CCmsAlerts_00_Done situation definition.

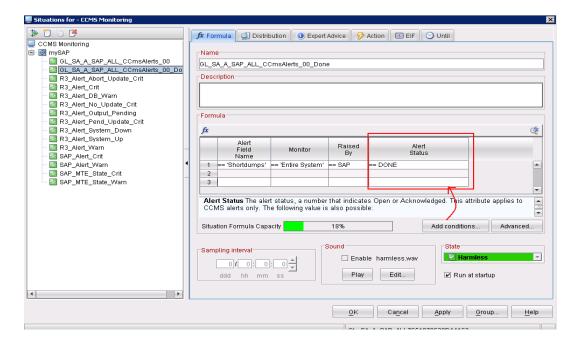


"Display Item" as "Alert Unique Identifier" in both situations.

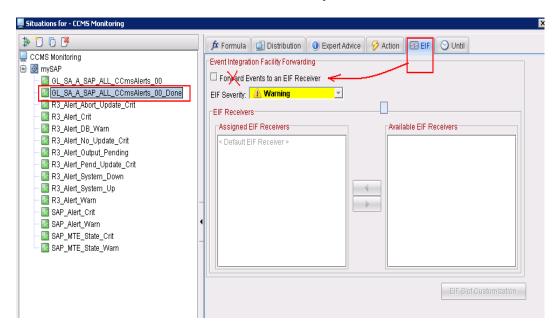


Add condition as "Alert Status == DONE"

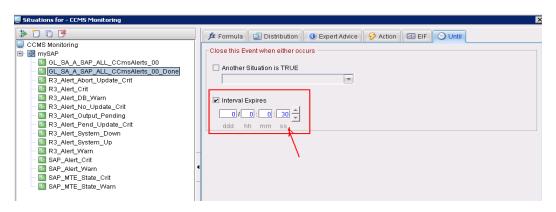
Specify



Disable "Forward Events to an EIF Receiver" facility.



Under "Until" clause specify "Interval Expires" time as 30 sec



2.4 Syslog is not showing on TEP workspace/ Duplicate Syslog entries coming

REASON:

All syslog messages between start and Stop time are not displayed. The syslog has the each record number. <sys id>_syslog.idx file stores the last record number to make sure that no duplicate syslog records are collected. By deleting the idx file and restarting the agent, the corrupted idx file get s fixed. Duplicate Syslog entries issue is fixed in 620 IF0014.

1. Stop SAP agent.

2. On windows:

Delete <candle home>\TMAITM6\<Sys id>_syslog.idx file.

On Non-Windows:

Delete <candle home>\config\<Sys id>_syslog.idx file.

3. Restart SAP agent.

2.5 Configure SAP CCMS to copy a monitor set for SAP CEN (Centralized Monitoring systems)

Follow the below steps:

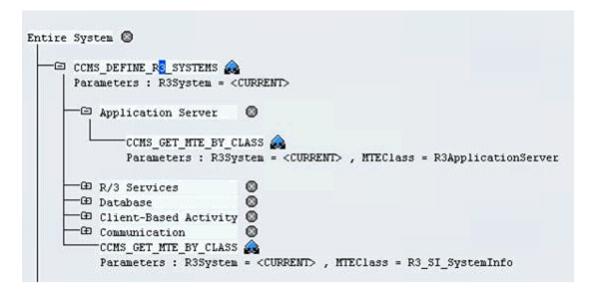
In CEN:

Transaction code: RZ20

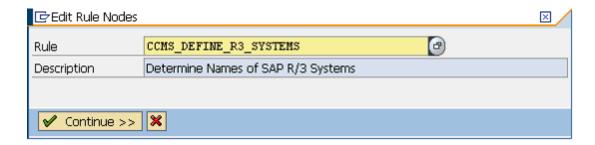
Extra -> Active maintenance function Choose to Copy A Monitor Set.



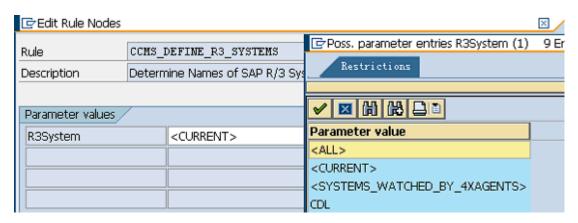
Change Monitor Definition



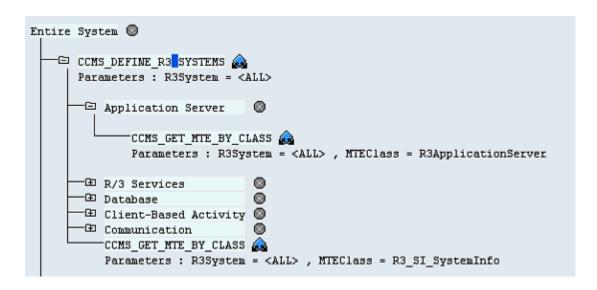
Double Click the Node, and Choose Continue button.



Choose <All> R3 System., and Continue

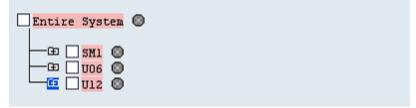


Continue



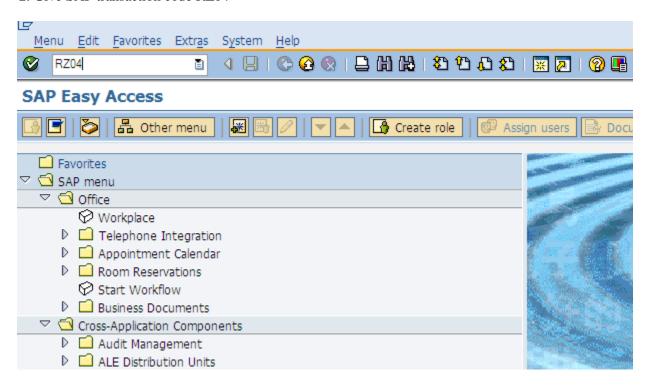
SAVE.

Now you can view all system status.

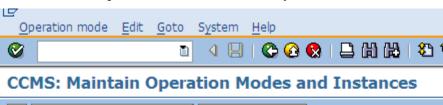


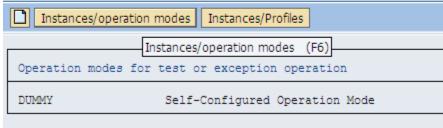
2.6 Remove inactive Configured Instances.

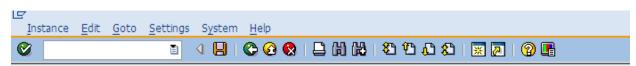
- 1. Logon to SAP GUI
- 2. Give SAP transaction code RZ04



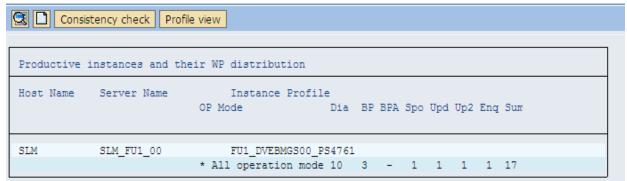
Select Instances/operation modes or function key F6





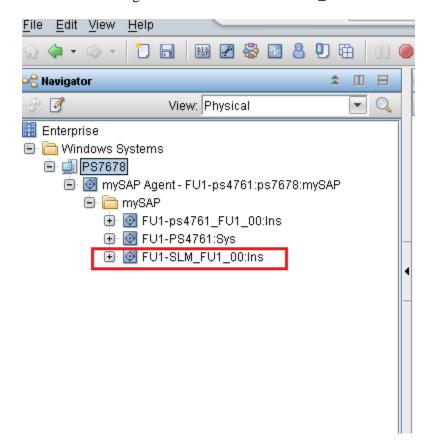


CCMS: Maintain Operation Modes and Instances

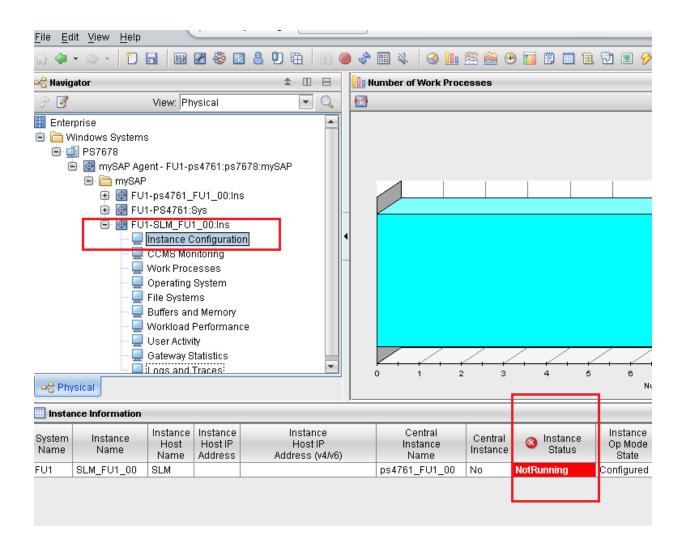


Find the entry of SLM <unwanted instance node>

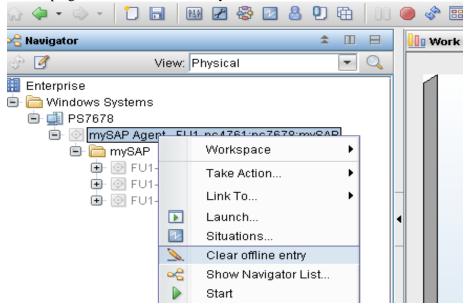
TEP Screen showing unwanted instance node SLM_FU1



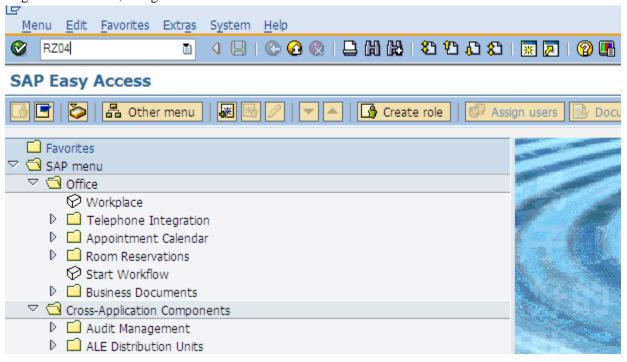
Instance Status for those instance which are configured by are not active will have value as "NotRunning"



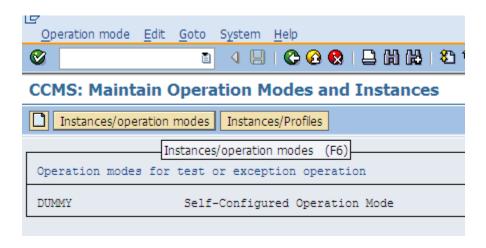
1. Stop agent, Remove offline entry from TEP



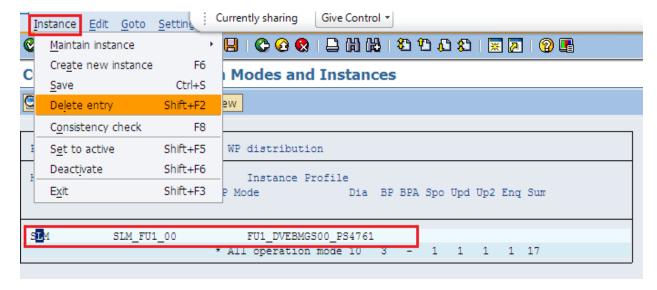
2. Logon to SAP GUI, and give Transaction code RZ04



3. Select Instances/operation modes or function key F6

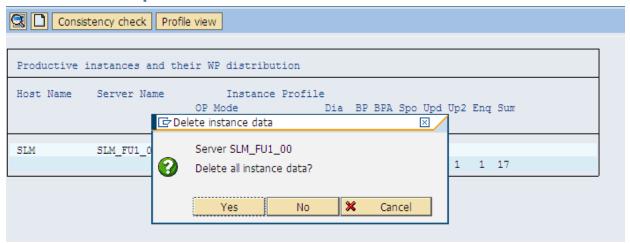


4. Delete the entry of unwanted instance by selecting Delete entry from Instance menu.



5. Click on Yes to confirm the delete.

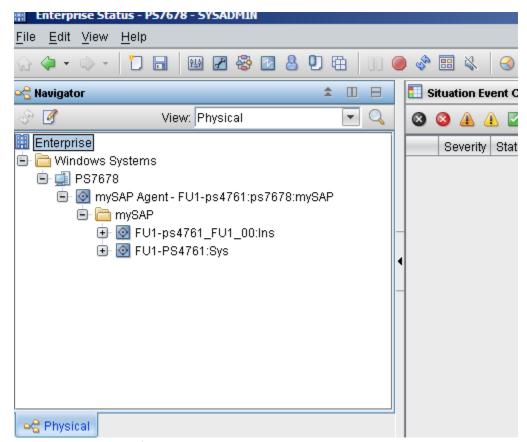
CCMS: Maintain Operation Modes and Instances



6. Save the changes



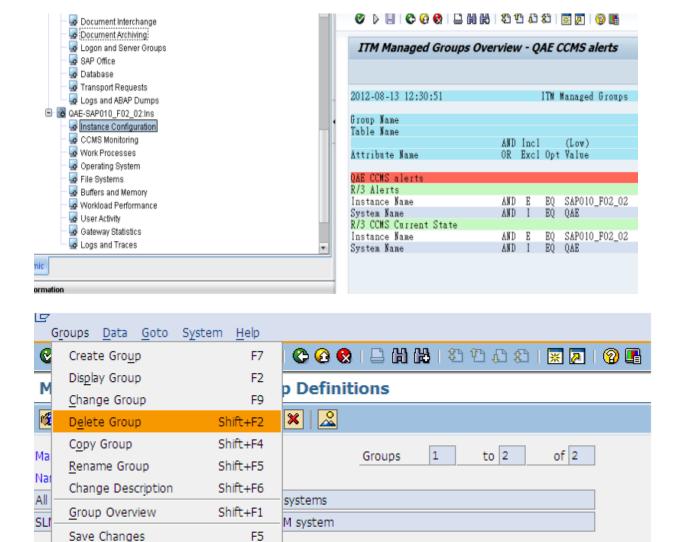
Start the Agent and check the nodes.



If above solution is not working then follow these steps

- 1) Log-on to SAP GUI
- 2) Give transaction code /n/ibmmon/itm config.
- 3) Click on Maintain managed groups
- 4) Click on the group to be deleted and IN Groups -> Delete Group or SHIFT+F2 (show in below screen).

(SAP010_F02_02 is unwanted instance)



5) Restart the SAP Server/instance and Agent.

2.7 Locate agent log files

Cancel Changes

Find

Find again

SAP agent's log files can be found in the following locations:

F6

Ctrl+F

Ctrl+G

- Agent logs- The contents of the "tmaitm6/logs" directory hostname_sa_* instance_hostname_mySAP.LG* *rfc*.trc
- 2) The RAS logs file is generally located under install_dir/logs.
- 3) The RFC traces are named rfcpid_threadid.trc and will be located generally in install_dir/bin
- 4) Situation message files: This log file is %CANDLE_HOME%\CMS\kdsmain.msg on Windows, and /logs/_ms_.log on UNIX/Linux.

2.8 Increase the size of log files

Update the KBB_RAS1_LOG parameter in the sa.ini to limit and count values that control the size and number of RAS1 trace segments to maintain.

Example: COUNT=15 LIMIT=25 PRESERVE=1 MAXFILES=16

//This increases the limit to 25 MB for each segment, the count to allow 15 segments for current logs, and the maxfiles to allow a total of 16 ras1 log segments for all previous startups of an agent.//

NOTE: Make sure you have free space for approx. 400 MB of logging for each ITM mySAP instance that is creating RAS1 logs.

2.9 Collect situation message files

From the TEMS and RTEMS systems provide the messages file that shows when situations are being evaluated to true/false so we can see the timeframe for when the critical events are being logged.

This log is %CANDLE_HOME%\CMS\kdsmain.msg on Windows, and /logs/_ms_.log on UNIX/Linux.

2.10 Collect the ABAP dumps

- 1. Logon to SAP system via SAP GUI.
- 2. Run 'ST22' transaction code
- 3. Double click on the ABAP dump.
- 4. Click 'System' -> 'List' -> 'Save' -> Local File and then select HTML format
- 5. The HTML document can be saved for further references.

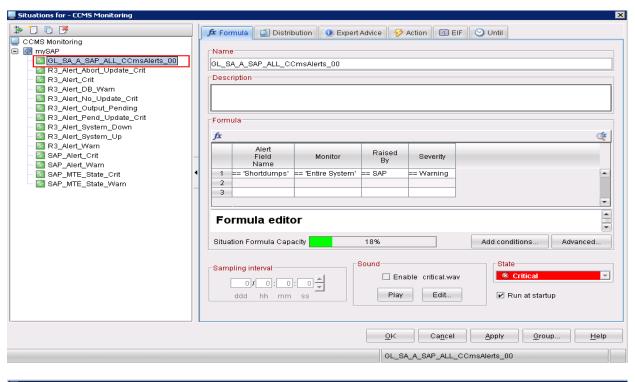
2.11 Set trace level

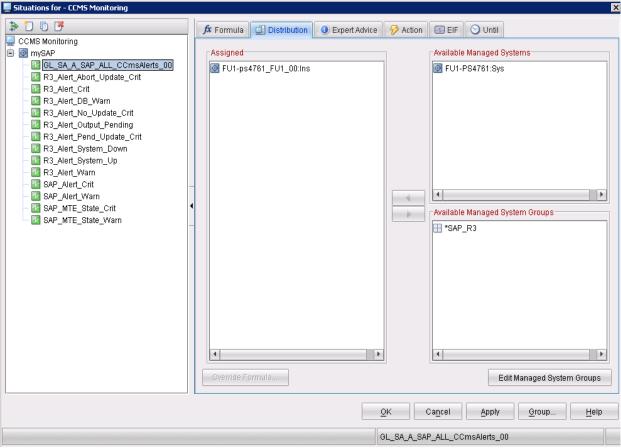
- 1. Update the install_dir/config/sa_<instance-ID>.config file for the following variables: KBB_RAS1=ERROR (UNIT:KSA ALL) (UNIT:KRA ALL)
- 2. Restart the agent.
 For RFC tracing (see "Enabling and disabling RFC tracing" in the User's Manual of the Tivoli Agent)

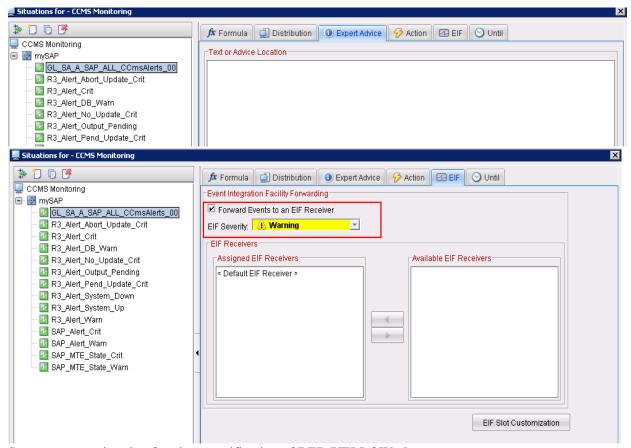
2.12 Auto close RED alert situation without using TakeAction

- 1. Auto closer of RED alert situation (event on TEC) on TEP can be done with other situation which is defined for closer notification of RED/YELLOW alert on SAP side.
- 2. For example, one situation for RED alert (GL_SA_A_SAP_ALL_CCmsAlerts_00) and other situation (GL_SA_A_SAP_ALL_CCmsAlerts_00_Done), created same as "GL_SA_A_SAP_ALL_CCmsAlerts_00" with one condition as "Alert Status == DONE" and removed "Severity==warning" condition.
- 3. Don't use "Severity" or "Alert Severity" in a situation which is defined for closer notification of RED/YELLOW alert on SAP side. Here we have not used "Severity" condition in a "GL_SA_A_SAP_ALL_CCmsAlerts_00_Done" situation.

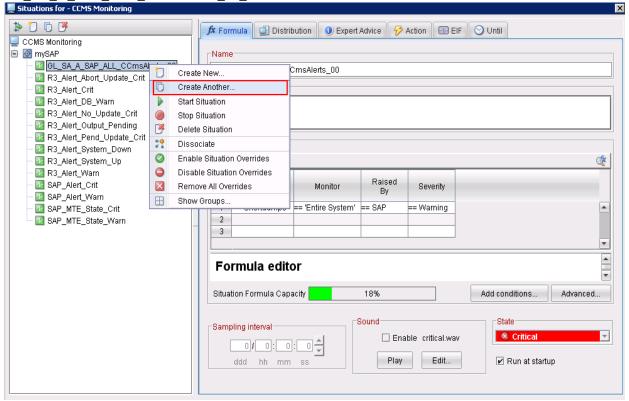
GL_SA_A_SAP_ALL_CCmsAlerts_00 situation definition:



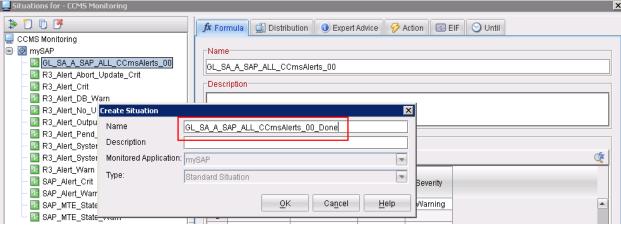




Steps to create situation for closer notification of RED/YELLOW alert GL_SA_A_SAP_ALL_CCmsAlerts_00_Done situation definition:

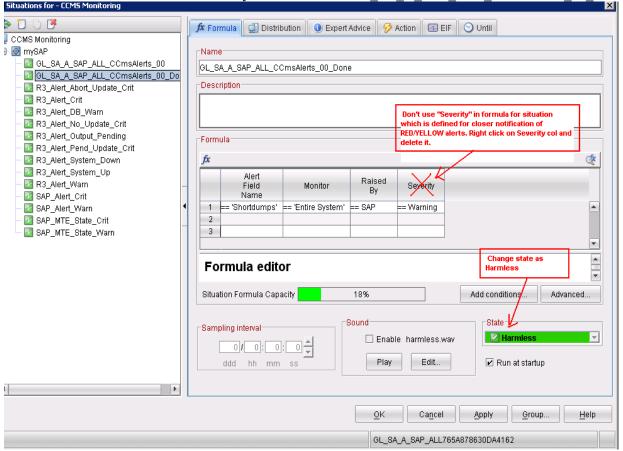


Provide name for other situation as shown



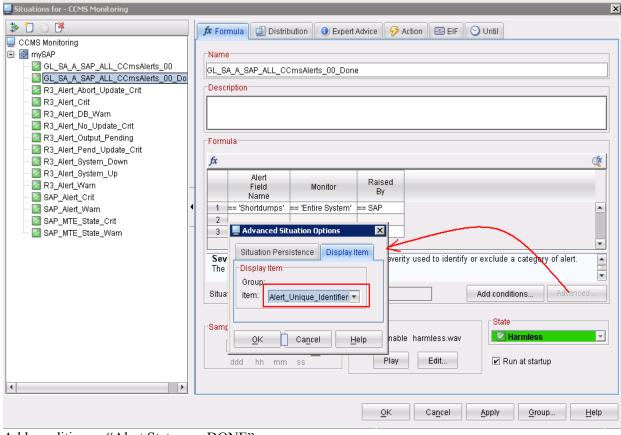
Change state as "Harmless" and delete "Severity" condition.

Don't use "Severity" or "Alert Severity" in a situation which is defined for closer notification of RED/YELLOW alert on SAP side. Here we haven't used "Severity" condition in a "GL SA A SAP ALL CCmsAlerts 00 Done" situation.

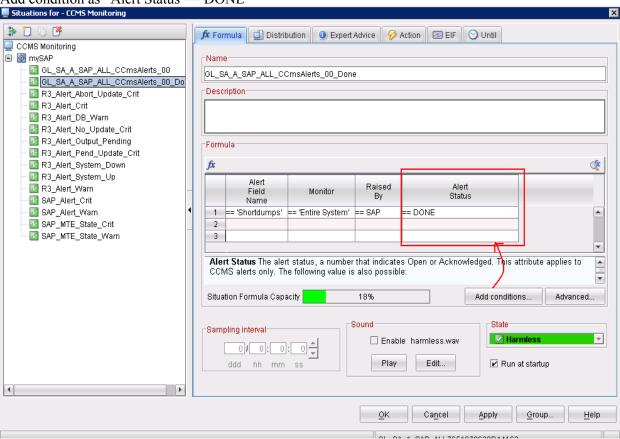


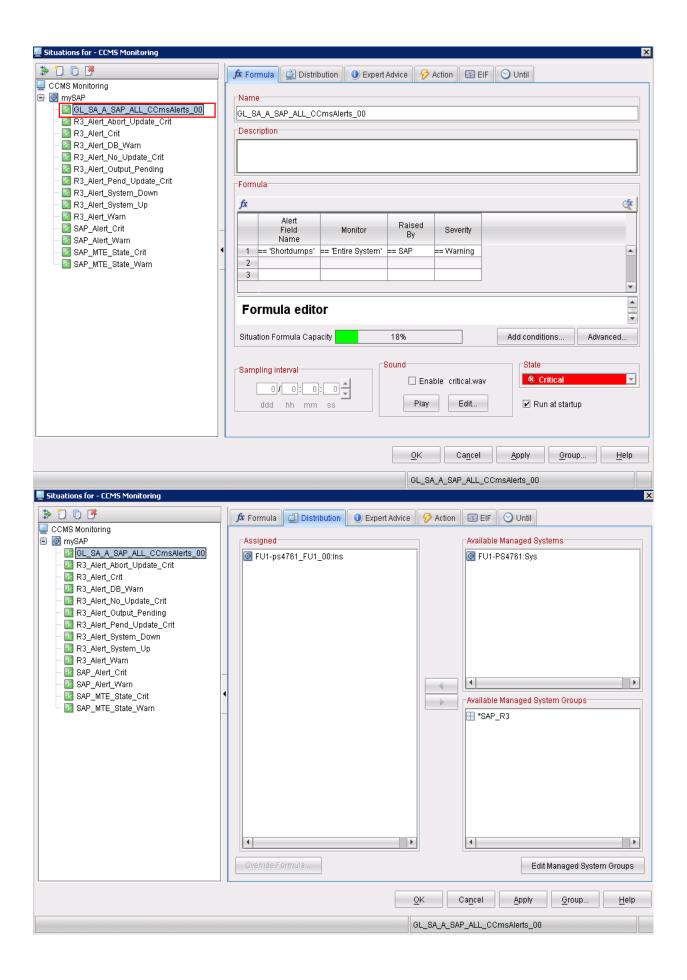
Specify "Display Item" as "Alert Unique Identifier" in both situations.

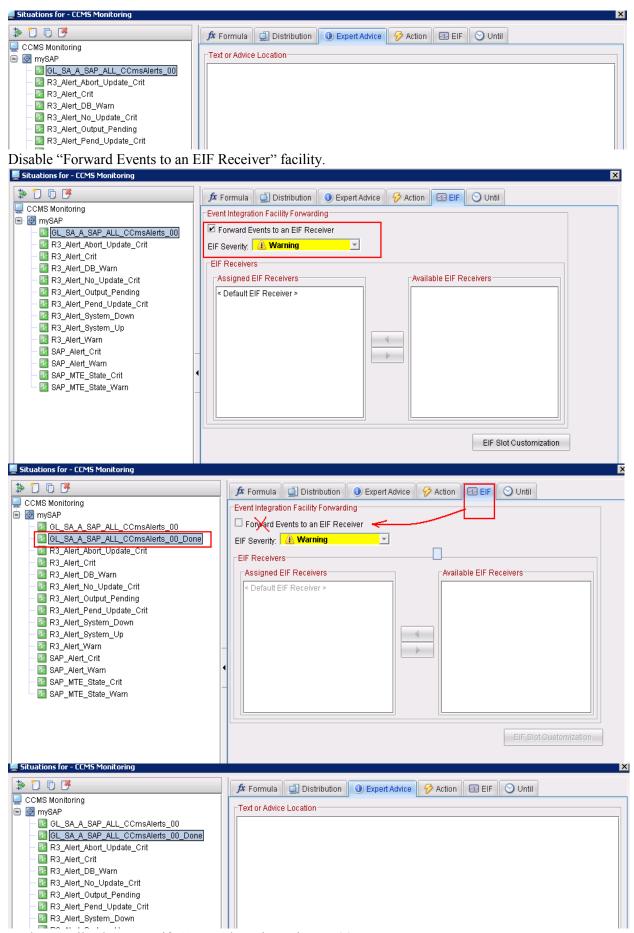
Make sure to set "Display Item" of situations GL_SA_A_SAP_ALL_CCmsAlerts_00 and GL_SA_A_SAP_ALL_CCmsAlerts_00_Done same attribute i.e Alert_Unique_Identifier.



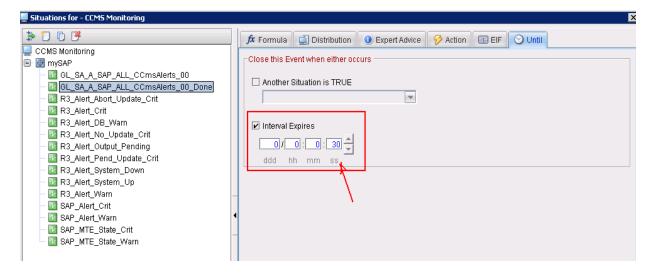






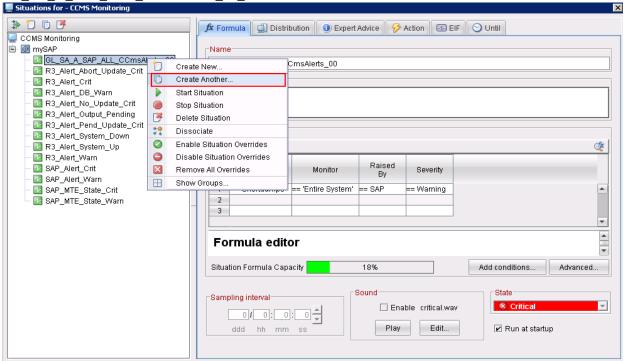


Under "Until" clause specify "Interval Expires" time as 30 sec.



4. Steps to create situation for closer notification of RED/YELLOW alerts.

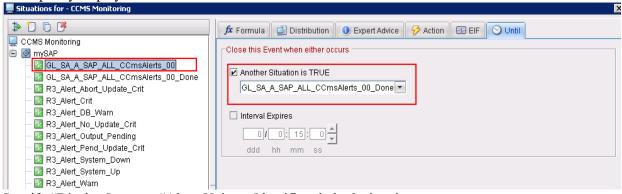
GL_SA_A_SAP_ALL_CCmsAlerts_00_Done situation definition:



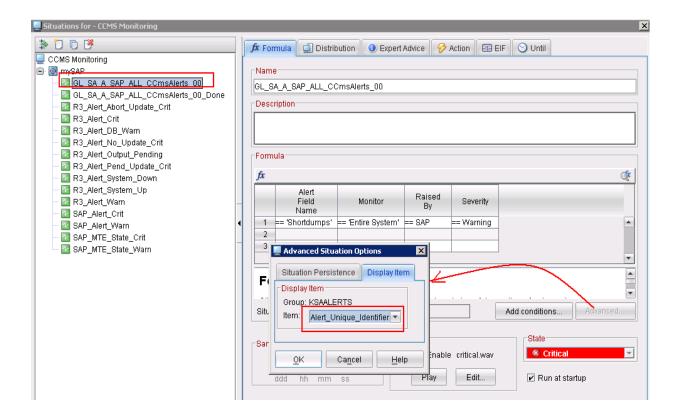
"GL_SA_A_SAP_ALL_CCmsAlerts_00_Done" situation is defined successfully go to "GL_SA_A_SAP_ALL_CCmsAlerts_00" situation definition on the Until tab clause.

Select "GL SA A SAP ALL CCmsAlerts 00 Done" situation as shown here.

Also specify display item for this situation as below.

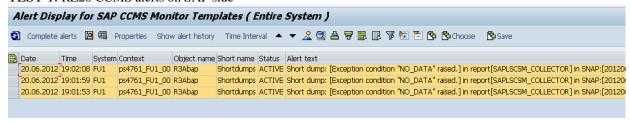


Specify "Display Item" as "Alert Unique Identifier" in both situations.



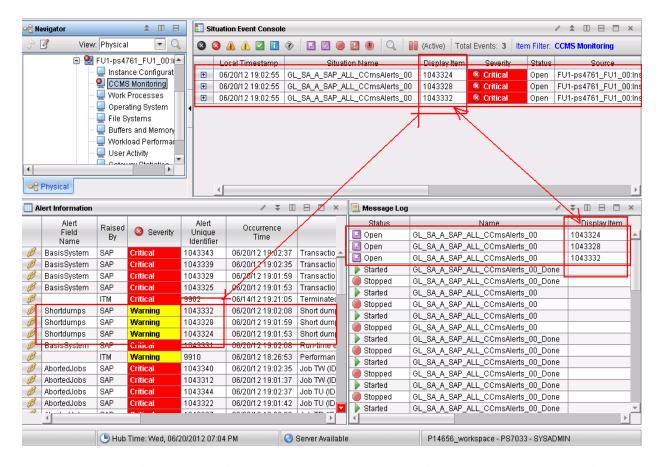
5. Below are the test results for auto closer of situations and its relative events on TEC.

TEST 1: RZ20 CCMS alerts on SAP side

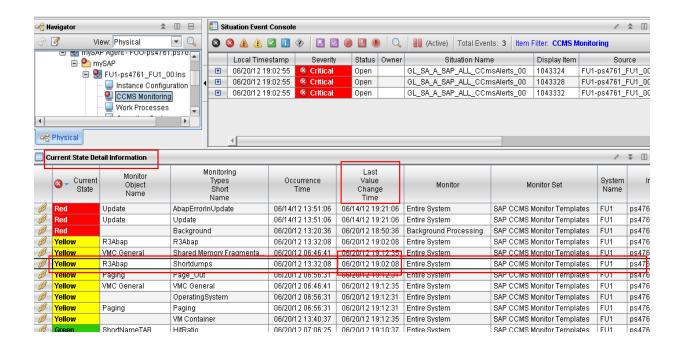


Current state Details screen shots →

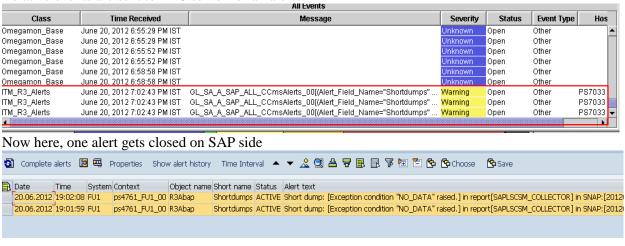
Here all 3 alert occurrences on SAP side are triggered, because the "Alert_Unque_Identifier" specified as Display item is different.



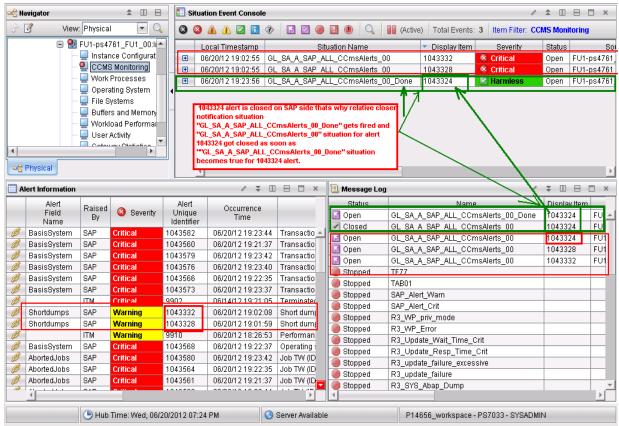
Here you can see only the alert which occurred on the SAP side last. i.e. where the Occurrence Time is greater than rest of all alerts.



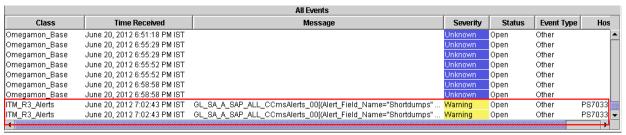
Relative events are sent to TEC server for all alerts.



Situation which was triggered for 1043324 gets closed as soon as closer notification situation for same alerts becomes true.



Remaining event on TEC for rest of 2 alerts

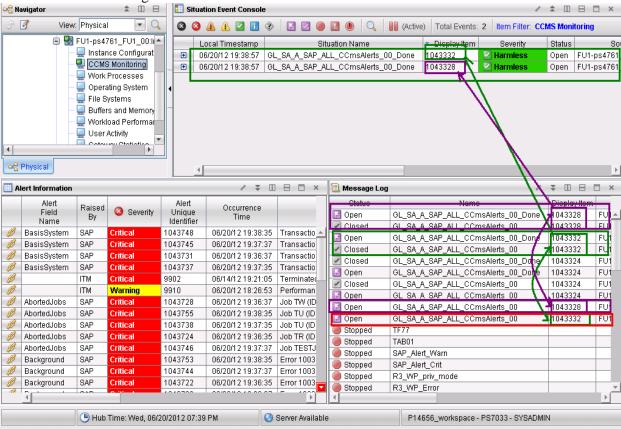


TEST 2:

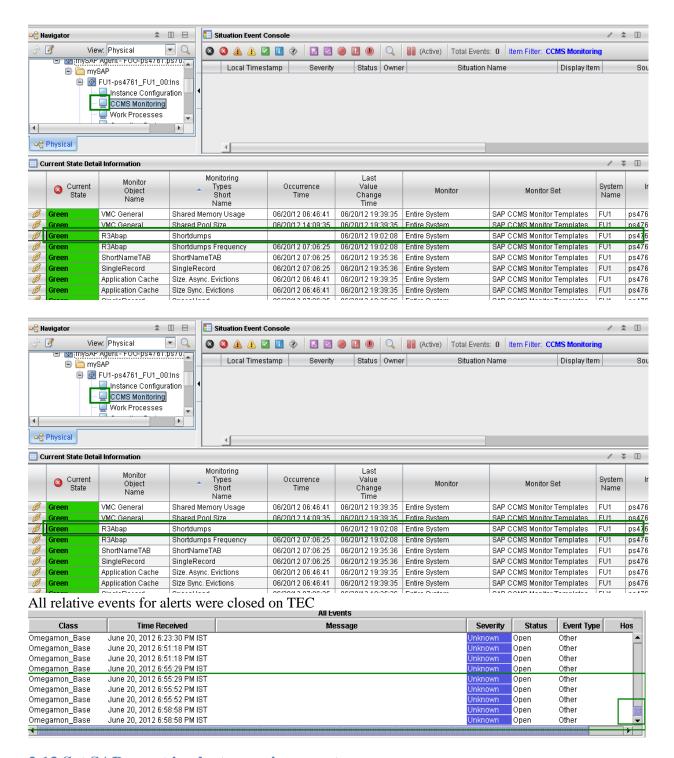
All alerts get closed on SAP side



TEP screen shot showing relative situation was closed as soon as alert closer situation becomes true.



On TEP, all alerts become green because all alerts are closed on the SAP side.



2.13 Set SAP agent in cluster environment

See technote:

http://www-01.ibm.com/support/docview.wss?uid=swg21447251

2.14 How results calculated for transaction performance attribute group?

Answer: Average response time = (total response time/1000) / number of dialog steps

2.15 What are the steps to upgrade mySAP agent from v6.2 to v7.1?

Answer: http://www-01.ibm.com/support/docview.wss?uid=swg21607079

2.16 How to rename mySAP agent name on TEP

Managed system name is comprised of three parts: CTIRA_SUBSYSTEM_ID, CTIRA_HOSTNAME, and CTIRA_NODETYPE separated by colon. Managed system name is limited to 31 characters. By default for the mySAP agent, CTIRA_NODETYPE is set to mySAP, and CTIRA_SUBSYSTEM_ID is set to the SID-DBHOST. The CTIRA_SUBSYSTEM_ID is used to distinguish the multiple instances of the Monitoring Agent for mySAP.

We can add these entries as instance specific in sa_instance.config file.

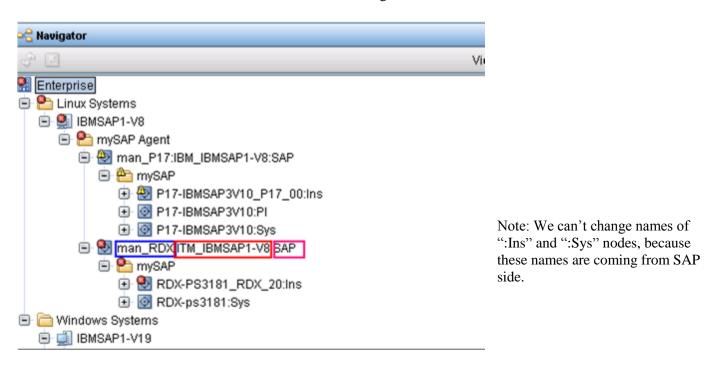
E.g. Add entries in "sa_RDX.config" file as below:

CTIRA HOSTNAME='ITM IBMSAP1-V8'

CTIRA_SUBSYSTEM_ID='man_RDX'

CTIRA_NODETYPE='SAP'

Added entries will be reflected on TEP for instance RDX after agent start/restart:



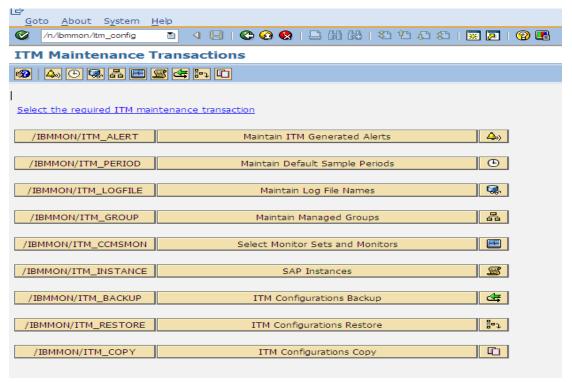
2.17 How to collect SAP system log

- 1. Logon to SAP system with SAPGUI.
- 2. Run 'SM21' Transaction code.
- 3. The 'From date/time' should be the date and time for that duration.
- 4. Input IBMMON_AGENT as the user if no data then user * as user name make sure you have User column in output.
- 5. Press 'F8' to run
- 6. In the result screen, click 'System Log' menu and select Download.
- 7. Select HTML format to save the log messages into html file.

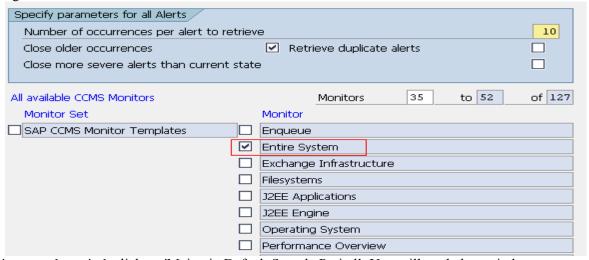
2.18 SAP Server /ibmmon/itm_config configuration panel

Step 1: Logon SAP system via SAP GUI.

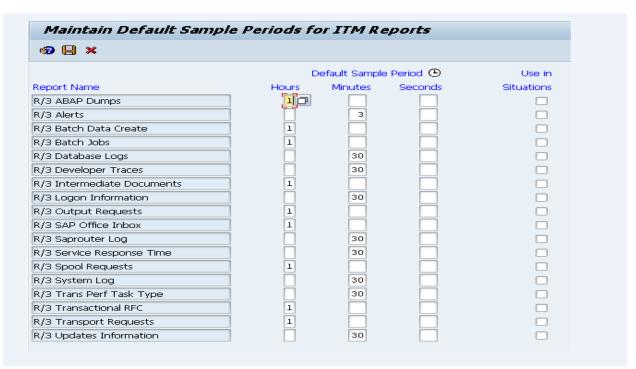
Step 2: Run '/n/ibmmon/itm_config' Transaction code and you will get below configuration window



For selection of CCMS monitor set, click on 'Select Monitor Sets and Monitors' button. You will get below windows



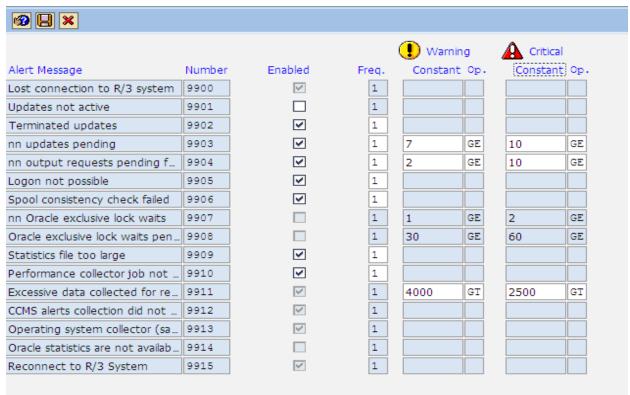
For setting sample period, click on 'Maintain Default Sample Period'. You will get below windows



For ITM generated alerts setting, Click on 'Maintain ITM generated alerts'



Maintain Thresholds for ITM Generated Alerts



2.19 IBMMON_AGENT user profile

Check if '/IBMMON/AUTH' profile is assigned to the user or not.

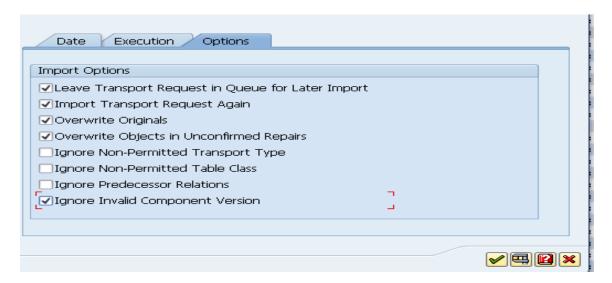


Check whether '/IBMMON/AUTH' profile is created or not.



2.20 How to import transport on SAP version 702 or version >=720.

- 1) Logon to SAP system.
- 2) Enter Transaction code /nSTMS_IMPORT.
- 3) Place the cursor on transport request to be imported.
- 4) Go to Request->Import and select date, execution tab options.
- 5) Under Options tab select following options and press Enter:

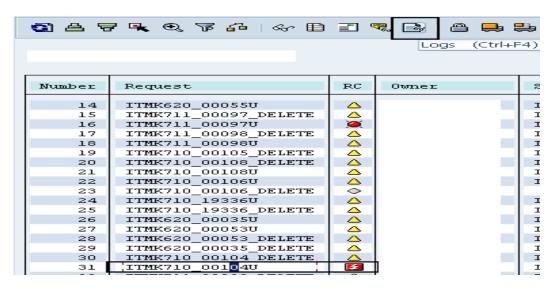


2.21 How to disable data collection for particular function module.

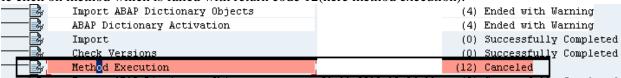
- 1) Logon to SAP GUI.
- 2) Enter transaction code SE16.
- 3) Enter table name as /IBMMON/ITM_CNFG.
- 4) Press F7 then F8.
- 5) Add entry using F5 like ITM_configuration_parameters/PARM_NAME=function module name and VALUE CHAR=NO.
- 6) Save added entry.

2.22 How to collect SAP ABAP dumps from SAP system in case of transport

- 1) Logon to SAP GUI.
- 2) Enter Transaction code /nstms_import.
- 3) Select the transport request number whose import is failed.



- 4) Press Ctrl+F4 to get import logs.
- 5) Double click on method which is failed with return code 12(here method execution).



6) Click on Magnifier icon with text See Job Log.

7) Double click on second last message to get error details.

```
Message

Job started
Step 001 started (program RDDEXECL, variant, user ID DDIC)
All DB buffers of application server were synchronized
Populated /IBMMON/ITM_PERD with default sample periods
Determined system type
Determined Unicode syntax type
Updated default ITM generated alerts
Updated product version and release information
Created ITM dynamic exception program
Created list of ABAP programs
Installed TEXTPOOL for /IBMMON/SAPLITM6
Adjusted dynamic code for Basis release 620
ABAP/4 processor: RAISE_EXCEPTION
Job cancelled
```

- 8) To save details go to System->List->Save->Local file->HTML format and press enter.
- 9) Specify directory and filename, click Generate button.

2.23 How to collect transport import logs from SAP GUI

- 1) Enter transaction code STMS IMPORT
- 2)Select the transport request
- 3) Click 'Logs' or press 'Ctrl+F4'
- 4) Click on the display icon on the line which is showing the error
- 5) Expand the details
- 6) Go to System -> List -> Save -> Local file
- 7) Select the radio button 'HTML format'
- 8) Give the filename and click 'Generate'

2.24 How does the situation 'R3 update failure' work?

<u>Formula for Situation</u>: *IF *VALUE R/3_Updates_Information.Error *NE " Working:

- 1) Function module which we use to collect update information is /IBMMON/ITM_UPDATES
- 2) This function module collects data as per stipulated sample period (defaults to 30 min) set on SAP system. Default period is configurable on SAP. Refer User Guide.
- 3) This function module collects all update work processes records generated within stipulated sample period
- 4) If any collected update work process is processed with error then 'Error' field contains error details.

5) When there is an error indicated by error message, formula for the situation gets satisfied and the situation 'R3 update failure' gets triggered.

<u>Note</u>: The situation remains open until the condition for the formula is met. Action taken for the error (shown by error message) ensues the closing of the alert.

The process to view details on SAP system pertaining to the error is:

- a) Logon to SAP graphical user interface
- b) Enter the transaction code /nSM13
- c) Enter values in 'date' and/or 'time' fields if requests are to be accessed for particular date/time else press F8 key to directly execute it.
- d) Double click on update request with error and press F2 to get error information.
- e) If error details ask to check error by using **ST22** transaction code then check ABAP dump at the time of update request's time, which contains error on function module which is same as error for function module for which update request failed.

3. FAQ

3.1 Can ITM on windows have multiple candle homes?

Answer: No.

3.2 Which transport file should be imported for any particular SAP agent?

Answer: Refer SAP agent user guide.

Installing SAP transport and defining the user section in SAP Agent user guide:

http://publib.boulder.ibm.com/infocenter/tivihelp/v15r1/index.jsp?topic=%2Fcom.ibm.itmfa.doc 6.1%2Fmain r319.ht m

3.3 Is SAP Live Cache and MAXDB is supported by SAP agent?

Answer: SAP agent does not support monitoring any specific features of Live Cache and Max DB. However if MAxDB is on supported SAP basis version then it is supported. SAP can use any supported database by SAP as backend database during SAP installation.

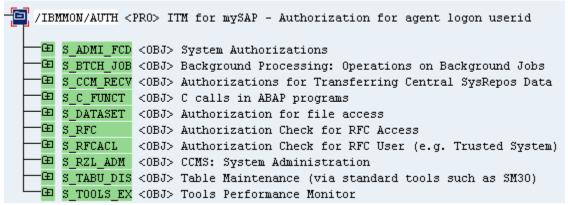
SAP agent monitors Oracle and DB2 to show some important information in TEP under Database workspace, but anything specific for MAxDB is not supported. Normal data monitoring is possible and supported for MAxDB.

3.4 What are the minimum authorizations needed for SAP user that uses SAP agent?

Answer: Following are the minimum authorizations for 710/711 agent:

```
/IBMMON/AUTH <PRO> ITM for mySAP - Authorization for agent logon userid
🕮 D MD DATA | <OBJ> DMD: Master Data - Data Contents
 🖭 D SOLMANBU <OBJ> Solution Manager - Authorization for Session Type
😉 D SOLM ACT <OBJ> Solution Manager - Authorization within Solution
⊞ D SOL VSBL <OBJ>
⊞ S ADMI_FCD <0BJ> System Authorizations
😉 S BTCH JOB <OBJ> Background Processing: Operations on Background Jobs
 🕮 S CCM RECV <OBJ> Authorizations for Transferring Central SysRepos Data
-⊞ S C_FUNCT <0BJ> C calls in ABAP programs
🖭 S DATASET <OBJ> Authorization for file access
⊞ S RFC
          <0BJ> Authorization Check for RFC Access
🖼 S RFCACL | <0BJ> Authorization Check for RFC User (e.g. Trusted System)
🖽 S RZL ADM <OBJ> CCMS: System Administration
 🖭 S TOOLS EX <OBJ> Tools Performance Monitor
 ⊞ S XMB MONI <0BJ>
```

Authorization for 620 agent:



3.5 No data on TEP.Is this behavior as per design?

Answer: If System Name column for any Attribute group on workspace contains string "No Applicable Data" then this means currently there is no data available at SAP side for called attribute group. When there will be data, will get data on TEP. This working is as per design.

3.6 Is there a SAP agent or does the SAP agent (sa) monitor the SAP ASCS(SAP central services)?

Answer: For SAP agent 620/710/711, there are no default situations to monitor central services like Enqueue service of ASCS instance.

3.7 Is there a Non-Unicode 711 Transport?

Answer: Non-Unicode is not supported by 711 sap agent version but supported by 710 agent. From 711 SAP agent support for Non-Unicode is removed and decision is taken from product management.

3.8 Does SAP Agent support Live cache, TREX and Java?

Answer: Proactive monitoring is not available for Java stack and TREX in SAP agent 620/710/711. To monitor Java stack and TREX, can use CCMS monitor set.

3.9 How to monitor SAP Java Application server?

Answer: SAP Java Application server can be monitored using Solution Manager MAI configuration. If SAP Java Application server is connected to MAI configured Solution Manager, then it can be monitored using SAP Agent. Also monitor Java stack using CCMS monitor and get alerts.

3.10 Tivoli monitoring for SAP HANA.

Answer: HANA architecture is not monitored (along with BI, BO and end user experience) by SAP agent.

3.11 Not able to change contents of /IBMMON/ITM_CNFG table.

Answer: SAP user need change authorizations in order to make changes to the table.

3.12 Monitored SAP system is Unicode, so required library is librfc32u.dll?

Answer: There is no such relation of librfc with SAP Unicode/Non-Unicode. Use librfc32.dll as per machine architecture (32/64 bit) and OS platform.

3.13 On SAP agent, is there a difference between Unicode/Non-Unicode?

Answer: No, on SAP agent side there is no such term as Unicode/Non-Unicode.

3.14 What is 9903 event?

Answer: 9903 is an internal alert of SAP agent, which stands for update pending on SAP side.

On SAP if any update is pending then it will return code 254/255. ABAP will verify if such update pending records are more than threshold value, it will notify TEP/SAP agent by raising 9903 event.

To verify pending updates on SAP, check SM13 transaction and select 'To be updated' option under Status frame.

Pending updates are updates which need to be settled, and Administrator needs to take action against it.

3.15 Monitoring SCS instance by SAP agent?

Answer: SCS instance is not monitored by SAP agent as SAP agent connects to SAP system using RFC connection and RFC connection cannot be used to connect to SCS instance.

3.16 How to monitor MAI alerts collected in solution manager 7.1

Answer: Install SAP agent 711 and BADI transport to monitor MAI alerts.

3.17 What is 'Queue Count'?

Answer: It's the number of queues grouped by queue status.

3.18 Which all features are not supported by the SAP agent 7.1.1?

Answer: Features related to BO. HANA and Content Server are not monitorered.

3.19 What's the need to download the RFC file instead of it being packaged with the agent?

Answer: Due to licensing problem, RFC files were not packaged with the mySAP 7.1 agent. Till SAP Agent 711 IF001 support Classic RFC library. From SAP Agent version 711 FP01 agent supports Netwear RFC library.

3.20 Will the matrix of OS and appropriate RFC lib name be provided for customer reference?

Answer: This matrix can't be provided to customer, because its owned by SAP. Information about which RFC file for

3.21 Before adding the SAP agent to the depot, what's the role of SAP admin?

Answer: We need to ask SAP admin to download RFC libs for the/all relevant platforms and then make the extractions of jar and copy the corresponding RFC libs to correct path and re-jar

3.22 Which SAP kernel level versions are supported?

Answer: Check the SAP basis version and if SAP basis version is mentioned in support matrix or SPCR, the agent will be supported irrespective of the sap kernel version.

3.23 What is the monitoring scope of BW and Netweaver?

Answer: BW and Netweaver systems are monitored in a way as any other SAP application like ERP, CRM, SRM, SCM. There is no specific functionality implemented for these systems.

3.24 Is there only "ABAP" stack that exists? What does it mean?

Answer: SAP Netweaver and SAP applications from basis version 640, which mainly run on NW platform use two engines – ABAP and JAVA. SAP application running on ABAP engine enables user to login to SAP GUI and execute SAP transactions. SAP application running on JAVA engine enables user to use SAP with a web browser. Most of the applications of SAP run on both engines. For instance Solution Manager, PI/XI, ECC 6.0 applications can be run using SAP GUI or web browser. SAP Agent currently monitors only ABAP engine.

3.25 Is there any document or best practice prescribed for configuration of SAP modules?

Answer: Configuration of SAP modules is not in scope of SAP agent. This is separate activity handled by SAP functional team .

3.26 What's best practice prescribed to configure agent to support BW/NW system?

Answer: The agent can be configured in the same way as it's configured for any other system.

3.27 What are requirements for rendering support to Solman or any other SAP server?

Answer: In order to render support for any SAP server, SAP basis version must be supported by the SAP agent and the SAP level doesn't affect this support in any way.

e.g.	
SAP system	Basis versions required
SolMan server SAP Netweaver 7.1	7.00 , 7.02, 7.02

SAP agent	Basis versions supported
620	6.x0,7.00, 7.01,7.02, 7.30

NOTE: For latest certification refer IBM SPCR or support matrix.

3.28 Can multiple agent instances be configured on different hosts to point to same SAP system?

Answer: Yes, multiple agent instances can be configured on different/same hosts to point to same SAP system but on TEP, the information displayed under these instance nodes on TEP will be same and hence not necessary. In case of 711 SAP agent MAI closed alerts might get affected. Please avoid multiple agent instance

monitoring to same SAP Host/Instance.

3.29 Can full buffering be changed to single record buffering in /IBMMON/ITM_STOP?

Answer: Agent will not be impacted by changing to full buffering or single record buffering scheme.

3.29 Agent User id 'IBMMON_AGENT' designated as of type 'SYSTEM'.

Answer:

After importing transport, agent user is assigned the id 'IBMMON_AGENT' and is designated as of type 'SYSTEM'. SAP system categorizes users as described by the following link:

http://help.sap.com/saphelp_nw04/helpdata/en/3d/3272396ace5534e10000000a11405a/content.htm

Even though the user is categorized as one among the above, if it the agent user then its certified to work as only "dialog", "system" and "communication" type. By default, the agent user is designated as 'SYSTEM' user type and is assigned the user id 'INMMON AGENT'

3.30 What does the SAP(Measured) variable display?

Answer: SAP(Measured) variable will show the current performance of a SAP system configuration in SAPs number units (displayed as character string). The preferred SAPS number value for the SAP system can be known using SAP quicksizer tool.

3.31 SAP Agent 711 Fp01 User Guide links.

Answer:

Installation and Configuration guide:

http://www-01.ibm.com/support/knowledgecenter/SS3JRN 7.2.1.1/com.ibm.itcama.doc 7.2.1.1/sap/sap landing install.html

Reference:

http://www-01.ibm.com/support/knowledgecenter/SS3JRN 7.2.1.1/com.ibm.itcama.doc 7.2.1.1/sap/sap landing ref.html

Troubleshooting guide:

http://www-01.ibm.com/support/knowledgecenter/SS3JRN 7.2.1.1/com.ibm.itcama.doc 7.2.1.1/sap/sap landing ts.html

3.32 What set of Netwear RFC libraries are required for SAP Agent 711 FP001?

SAP Agent 711 FP01 version supports only SAP NW RFC. Follow below steps and use SAP NW RFC to get this done. Steps for downloading SAP NW RFC SDK are as follows

- 1. Login to SAP Marketplace using url: http://service.sap.com
- 2. Click on "SAP Support Portal" link
- 3. Enter the "Service Marketplace user name and password"
- 4. Click on "Software Downloads" button and expand "Support Packages" and Patches" link
- 5. Click on "Browse our Download Catalog" and on this page click on "Additional Components"
- 6. Click on "SAP NW RFC SDK" and click "SAP NW RFC SDK 7.20"
- 7. As per Agent operating system platform select the operating system
- 8. And download the *.SAR file on your computer.
- 9. Extract the SAP Netweaver RFC SDK *.SAR file using SAPCAR utility provided by SAP
- 10. Command to use: sapcar -xvf <SAP NW RFC SDK File Name>.SAR
- 11. Browse the extracted folder and go to "lib" folder. Copy files as per below instructions.

For Windows 32 and 64 bit platforms below six files need to be copied in the path mentioned below

- Windows 32 bit: %CANDLE_HOME%\TMAITM6
- Windows 64 bit: %CANDLE_HOME%\TMAITM6_x64
- i. icuin34.dll
- ii. libicudecnumber.dll

- iii. libsapucum.dll
- iv. icudt34.dll
- v. icuuc34.dll
- vi. sapnwrfc.dll

For Non Windows platforms copy all the files under corresponding platform from SAP_RFC_SDK_7.20 folder in the path mentioned below

Non Windows: \$CANDLE_HOME/<intrp>/sa/lib

Here <intrp> value can be one of the platform from the below list

- i. aix526
- ii. hpi116
- iii. li6263
- iv. 1s3266
- v. sol286
- vi. sol606
- vii. 1x8266

For e.g. copy below six files from "\SAP_RFC_SDK_7.20\AIX_64bit\lib" to \$CANDLE_HOME/aix526/sa/lib directory after installing SAP Agent:

- i. libsapnwrfc.so
- ii. ibicudecnumber.so
- iii. ibicuuc34.a
- iv. libicui18n34.a
- v. libicudata34.a
- vi. libsapucum.so

NOTE: For latest update on dll files please refer SPCR. LIBRFC tested with SAP agent 711 Fp01 is 720 and this is based on agent OS platform. SAP RFC NW SDK minimum version supported is 7.20 and based on the agent OS you need to download the respective NW RFC SDK from SAP market place based on 32 or 64 bit and Agent platform.

4. Problems, Symptoms, Solutions, Questions

Common issues/questions reported in PMRs.

NOTE: Verify or involve SAP Admin / DBA before implementing any solution mentioned below.

1. Cannot get all CCMS info into ITM

Symptoms:

With a MDM server connected to SAP system which is connected to Agent.

The alerts are coming from the central SAP system but not from MDM system connected to CEN.

Solution:

Main issue is resolved by adding parameter value to <All> in monitor set.

MDM is available under "SAP CCMS Technical Expert Monitors-All Monitoring Context"

2. Error "The installed release does not match" on SAP Netweaver

Symptoms: SAP Agent's transports error in the SAP Netweaver 7.3 system (The installed release does not match). Problem importing on SAP 7.02 ""Ignore Invalid Component Version"

Solution:

SAP Agent's transports are properly imported on SAP NW 7.3. The only difference we have seen while importing transports using STMS on SAP NW 7.3 is that:

- 1. For SAP Agent 6.2 we have to select only 1-4 below mentioned options
- 2. And for SAP Agent 6.2 IF13 and IF14 we need to select all below options on the Import Options tab of the Import Transport Request window. (Otherwise import operation throws this error "Component version mismatch error").

- 1. Leave transport request in queue for Later Import
- 2. Import Transport Request Again
- 3. Overwrite Originals
- 4. Overwrite objects in unconfirmed repairs.
- 5. Ignore non-Permitted Transport Type
- 6. Ignore non Permitted Table Class
- 7. Ignore Predecessor Relations
- 8. Ignore Invalid Component Version

Note: Using tp command we are able to import the transports without any additional change.

REASON:

With Version SAP_BASIS 702 a new feature was added to the TMS system. tp (Transport Program) is now checking the component version of the transport released and the component version of the system where the transport is going to be imported. If there is a difference, this difference is highlighted in the import queue (transaction stms_import) and if you try to import the transport, the import stops with a warning message about the difference in the SAPCOMPONENT versions.

To by-pass with warning choose 'Ignore invalid Component version'.

Below link explains the options present and their significance http://help.sap.com/saphelp_nw04/helpdata/en/5c/d21880fe3c11d2b461006094b9ea64/content.htm
The same detail is also present in SAP Note 0001090842.

3. SAP agent discovers inactive old SAP instance and logs message in agent log files/ Old SAP instances discovered on TEP. Symptoms:

Agent logs message in agent log files with ABAP short dumps for old instance.

Solution:

There are 3 different solutions for this same problem.

- 1) Check the content of table TPFID using TCODE SE16.
 - If the old instance is still defined in table, ask the SAP administrator to delete the entry from this table. Once removed, the ITM ABAP code no longer discovers the old instance and the error messages are not logged into the SAP System Log.
- 2) Also check whether old instance are still present under RZ04. Identify unwanted old instances and delete them from SAP system to avoid the problem. See technote:

http://www-01.ibm.com/support/docview.wss?uid=swg21515555

- 3) A) Stop mySAP agent
 - B) 1. Log on to SAP GUI
 - 2. Select transaction code "SE16"
 - 3. Enter Table name "/IBMMON/ITM CNFG" and press Enter key
 - 4. Press F8
 - 5. Press F5 and Enter values as below,

```
5a.\mbox{Param} name : OFFLINEFORINACTIVESERVER 5b.\mbox{Value} Char : YES 5c.\mbox{Value} Int : 1
```

- 5d. Save this setting (you can use shortcut keys "ctrl+s")
- C) Remove Offline Entries from TEP
- D) Start mySAP agent

4. Statistics Active value is "No" in Gateway Statistics workspace

Solution:

By default the Gateway Statistics are disabled. Follow the steps given in the user guide to activate the Gateway Statistics.

5. mySAP Agent using high CPU (IDOC performance problem in mySAP agent.)

Symptoms: Due to performance issue and heavy SAP data records workspace returns data slowly. Solution:

Change sample interval for /IBMMON/ITM_CCMS_ALERTS transaction from 30 seconds to 15 minutes. Short interval causes high CPU usage, so lengthen the interval to help resolve the cpu issue. Install latest IFix with performance improvement fixes. Performance improvement fix is provided in 620 IF0015 under APAR IV10144.

Also change critical constant for performance improvement. See How To section for setting critical constant on SAP system.

6. The managed system name is changing from day to day.

Applicable when: Single hosts (no clustering) have multiple mySAP instances.

Solution: It is expected behavior and agent is behaving as per the design.

In the normal scenario at the time of start-up to fetch the MSN(Managed Server Name) agent uses the "dbhostname" from the data returned by the function module /IBMMON/ITM_HOSTS for the SUBSYSTEM_ID part in MSN and register this name to show on TEP. In case it fails to register this name then it uses the SAPHOST name for the SUBSYSTEM_ID part instead of dbhostname. Whenever it is taking the SAPHOST name instead of dbhostname there is RFC communication failure with RFC error: Error message: No RFC authorization for function module RFCPING due to which it is not able to register the MSN with dbhostname and hence using the second option of taking the SAPHOST name instead of dbhostname.

7. Excessive data collected 9911 alert

Solution:

It depends on the critical constant defined in transaction /IBMMON/ITM_CONFIG. If you don't want the rows deleted then the value of critical constant can be increased to 5000.A large number consumes more memory and increases the performance somewhat. But it will consume more memory and on the other hand it will increase the performance little bit Also change critical constant for performance improvement. Check the How To section for setting critical constant on SAP system.

8. ITCAM agent for mySAP used on CEN shows old alerts as recent (All open alerts)

Solution

This is the current design. The agent reads all the CCMS alerts from the beginning, any time the agent is restarted or agent disconnects for a period of time the alerts are resent. In new CCMS Design 185741 (Fix available In 620 IF0016) a new configurable parameter will control the collection of alerts.

9. No data in Top Level: Sys workspaces.

Solution:

This is a known limitation related to TEP and described in the User's guide at page 284: No data is displayed in a top level workspace for managed system names ending in :Sys. Only one workspace can be assigned to a top level managed system, so all managed system names (: Ins , :Sys or :Grp) share the same workspace. This workspace contains instance specific views that are not populated when displayed for: Sys managed system names Basically, you are not losing data, because there are the same queries for the :INS workspaces.

10. ABAP DUMP: TSV_TNEW_PAGE_ALLOC_FAILED

Symptoms:

Due to frequent RFC Open calls and this could be due to the SAP system being unresponsive.

Continues RFC Open failure can also cause this dump.

The system may be overloaded with long running RFC calls, and it may experience memory leaks causing these errors TSV_TNEW_PAGE_ALLOC_FAILED and TSV_TNEW_OCCURS_NO_ROLL_MEMORY

Solution:

The dump message is related to SAP internal function SWNC_GET_STATRECS_FRAME /SWNC_GET_STATRECS_FRAME CL_SWNC_STATREC_SET_TABLE_SCSMCP used within agent function module IBMMON/ITM_READ_STATFILE.

It may be that one internal table exhausted the available space.

This issue is fixed in 620 IF0015 with APAR IV10144

11. Message "Value Exceeds Maximum" in TEP workspace

SOLUTION:

it is expected in this field because it exceeded the value 2147483647.

In this case, instead of using Total_size and Total_Used in KiloByte (Kb) fields, you can modify the workspace view and select the attributes Total_Size (Mb) and Total_Used(Mb). Optionally try new release 710 if you are currently running 620.

12. SAP agent not collecting SAP historical data

SOLUTION:

Issue resolved after reconfiguring agent to correct TEMS

13. Problem installing IF0013 patch

SOLUTION:

Issue resolved after reconfiguring agent to correct TEMS

14. SAP agent not collecting SAP historical data

SOLUTION:

Increase files descriptor setting on the TEMS machine to 8192

15. mySAP agent fails to connect to SAP

SOLUTION:

Check the port number through telnet and create SAP user manually

16. How does TDMS affect the tables of the ITM agent?

SOLUTION:

As per ITM (710 mySAP Transport) tables these are static tables and not going to change more frequently. You can avoid these in TDMS.

17. Return code 8 or return code 12 occurs on the main import step

SOLUTION:

R3trans Version 01.07.04 or later is required for a successful import of the product transport request because of Dynpro and Export and Import table incompatibility.

18. ABAP transport import completed but there are some Syntax error

SOLUTION:

Delete transport and re-import resolved the issue

19. The tree is not appearing on TEP, SAP agent not showing data

SOLUTION:

Reconfigure the agent by using IP address to resolve the issue.

20. SAP agent support SAP SP level?

SAP Solman or any SAP server support is based on SAP basis version not by SP level.

Currently Solman system is monitored as any SAP application like ERP, CRM, SRM, SCM. There is no monitoring for Solman component specific functionality in 620 agent. So with Solman monitoring customer would see INS, SYS nodes and the workspaces under them.

So, INS, SYS workspaces are created with the ABAP engine statistics that uses Solman . But there is no specific Solman workspaces or attributes.

SolMan server SAP Netweaver 7.1 - Supported if SAP basis version is 7.00, 7.02, 7.02

SAP agent 620 support above mentioned SAP servers if their basisversion is supported.

SAP agent 620 support 6.x0, 7.00, 7.01, 7.02, 7.30.

SAP BAsis 731 is not supported by 620 Agent.

NOTE: BI EP and ERP agent support based on the Basis version not the application.

PI and solman are not application. They are components which are supported only by new SAP agent version like 7.1.0 support PI, Solman.

21. How mySAP Agent is affected with AIX platform variable 'AIXTHREAD_SCOPE'

SOLUTION:

This is an AIX parameter, so "Changing the value of parameter AIXTHREAD_SCOPE from P to S will affect all Applications running on the AIX box, not only mySAP agent".

22. mySAP Agent using high CPU

SOLUTION:

Change the sample interval for /IBMMON/ITM_CCMS_ALERTS transaction from 30 seconds to 15 minutes. Short interval cause high CPU usage, a longer interval resolved the cpu issue. Also refer "ITCAM for Application mySAP Agent Best Practise .pdf".

23. Transport and import error on AIX 5.3

SOLUTION:

Corrected the time zone and re-import . See Technote:

https://www-304.ibm.com/jct01003c/support/docview.wss?uid=swg21394364

24. Problem installing IFix on Linux

SOLUTION:

Refer SAP notes 413708 to download SAP RFC library used by mySAP agent.

24. Error installing SAP agent - Java Dump

SOLUTION:

Known JAVA issue. See Technote:

http://www-01.ibm.com/support/docview.wss?uid=swg21424938

25. Issue to install mySAP agent on AIX 6.1 on Power 7

SOLUTION:

There is a known problem with the java version that comes with some versions of ITM. The java versions that work well on Power 7 hardware are supplied at ITM 6.2.1 FP3 onwards. See Technote.

http://www-01.ibm.com/support/docview.wss?uid=swg21424938

26. SAP agent does not connect to RTEMS

SYMPTOMS:

Error: Unable to create socket to host IP.SPIPE:ip_address ,status=1002000a.

SOLUTION:

Wrong configuration of the agent, you must correct the agent configuration. Even if problem persist then check for AC components (32/64 bit) installed on system. If AC components are not there then install the AC component for 32/64 bit compatibility on server on which agent is running.

27. no more storage space error for IDOCs attribute group

"No more storage space available for extending an internal table"

SOLUTION:

The error indicates that SAP needs to allocate more memory to process.

1- Decrease IDOCS_READ_INTERVAL from default of 300 to 180 secs. IDOCS_READ_INTERVAL setting is available with the fix for APAR IV10144, it is use to tune the amount of data fetched per iteration

NOTE: Changing to a low value makes more loops which impacts agent performance but reduces the memory requirement

- 2 Decrease the ITM PERIOD from 1 hour to 30 minutes (to set ITM PERIOD for "R/3 Intermediate Documents)
- 3 Reduce the value of critical constant using SAP GUI (Ignore if value is set to default 2500)

28. The tree is not appearing on TEP, SAP agent not showing data

SOLUTION:

Decreased the ITM_PERIOD from 1 hour to 30 minutes and change the situation to check the age of IDOC to test for 30 minutes instead of one hour.

29. How to set SAP agent in cluster environment

SOLUTION:

See Technote:

http://www-01.ibm.com/support/docview.wss?uid=swg21447251

30. How to monitor SAP Router 7.1

SOLUTION:

Function module /IBMMON/ITM_SAPROUTER_LOG that gives the log information of the SAP router in agent.

- b. If SAP router installed in the same server where SAP server being monitored
- c. BY default, logging is disabled in SAP router, if the trace level is set for logging, only then are logs generated.

31. What is the list of all Tivoli SAP Agent Jobs in SAP

SOLUTION:

a. mySAP Agent working:

http://publib.boulder.ibm.com/infocenter/tivihelp/v24r1/index.jsp?topic=/com.ibm.itmfa.doc/main r366.htm

b. For Data collection see technote: https://www-1.ibm.com/support/docview.wss?uid=swg21290247

32. If PROD SAP system copied to another DEV SAP system would get transport files copied too SOLUTION:

Yes TRANSPORTS table are copied.

33. No data in :Lds and :Sol parent nodes

SOLUTION:

This is a current limitation of the Tivoli Enterprise Portal Server. Already mention in User Guide.

34. "No Applicable Data" on some workspace

SOLUTION:

If no data present on SAP then this is expected.

35. Test connection failure.

Problem: Test connection failed (TestConnection.exe stopped the behavior).

Root cause: librfccm.so not copied to specified location or wrong librfc files were used.

SOLUTION: Use correct librfc as per machine architecture (32/64 bit) and place it at required path.

Steps to copy

- i. Stop Agent
- ii. Copy new "librfccm.so" to <candle home>/lx8263/sa/lib/
- iii. Change permissions of "librfccm.so" to 777

iv. Start Agent

36. Agent is not connecting to SAP, there is an "unable to connect to gateway"

SOLUTION:

Reconfigured agent resolves the issue.

37. error message 'Name or password is incorrect (repeat logon)'

SOLUTION:

See technote:

http://www-304.ibm.com/support/docview.wss?uid=swg21504004

38. SAP agent does not start due to incorrect librfc32.dll

SOLUTION:

Resolved issue after using correct version of dll 32 bit instead of 64 bit as agent was running on 32 bit server.

39. AGENT DOES NOT CONNECT TO TEMS

SOLUTION:

In the agent env file add the TMAITM6_x64 (for example, C:\IBM\ITM\TMAITM6_x64) directory to the PATH. Issue similar to other agent see technote:

http://www-01.ibm.com/support/docview.wss?uid=swg1IV08547

40. IDOCS with status number 51 not collected by agent

SOLUTION:

Resolved issue by increasing the critical constant value by 5000. It depends on the critical constant defined in transaction /IBMMON/ITM CONFIG.

41. Agent not collecting all data

SOLUTION:

Issue with SAP Agent ERROR ABAP Version Mismatch. Import the correct transport level.

42. Situation not getting triggered when the BASIS admin system shutdown.

SOLUTION:

Perform these steps and check result.

- 1. Stop Agent
- 2. Set trace level as below, ERROR (UNIT:KSAMAIN.CPP ALL) (UNIT:KSA02AGT.CPP ALL)

(UNIT:KRASA02B.CPP ALL)((UNIT:KSALOGMSG.CPP ALL) .

- 3. Start Agent
- 4. Define test situation as below, (TEP side step)
- a. Right click on "CCMS Monitoring" and select Situations
- b. First select the "mySAP" node and then right click on it. Give situation name, make sure under Monitored Application box "mySAP" is present. Click on ok.
- c. Select "R/3 Alerts" as Attribute Group and "Number" as Attribute Item. Click on ok.
- d. Click on "Apply" button and then on "Ok" button.
- 5. Stop SAP server from SAP console (SAP side step)
- 6. Check "R3_Alert_System_Down" and "Test_Situation_Down" situations are fired or not

in "Common Event Console" on TEP.

7. If no situations fire then request pdcollect and "kdsmain.msg" file from TEMS machine.

Here we can check when particular situation was started, when it was become true etc.

43. mySAP Agent v7.1 is unable to start on Non-Windows machine

SYMPTOMS:

Found this entry in the Agent's log:

Could not load program /opt/IBM/ITM_B/aix526/sa/bin/ksaagent: Dependent module librfccm.o could not be loaded.

System error: No such file or directory

SOLUTION:

For Windows: copy librfc32.dll into %CANDLE_HOME%/TMAITM6

For UNIX/Linux: copy librfccm.o, librfccm.so or librfccm.sl

into \$CANDLEHOME/{interp}/sa/lib, authorize the x permission for user who will start up SAP agent

Reason: absence of SDK Library file.

Also verify

mySAp 620 agent doesn't start on non-windows platform:

Reproduce problem:

- 1) Install OS agent 623FP01
- 2) Install mySAP 620 Agent
- 3) SAP Agent fail to start because the framework is changed to a lower version then 623FP01

Re-install OS 623FP01 agent.

Technote:

http://www-01.ibm.com/support/docview.wss?uid=swg21408506

44. Does "SAP Agent 6.2 GA" support of SAP kernel 720 and SAP kernel 721?

SOLUTION:

- 1. Base level supports up to 7.0 (no 7.x)
- 2. Apply IF15 to resolve.

45. Can we monitor the Java stacks with SAP agent?

SOLUTION:

Monitoring agent for SAP does not support Java stack servers. The SAP Agent 7.1 monitors the Integration Engine, XML messages, Synchronous/Asynchronous messages all of which must be on the ABAP stack server.

If SAP agent monitors a SAP server that runs both ABAP and Java stack then it gives only partial /half information which are related to ABAP stack. Current SAP agent release 6.2 and 7.1 does not support Java Stack server. Plan is to support Java stack server via Solution Manager MAI (Monitoring and Alerting Infrastructure) in a future release of agent such as SAP Agent 7.2.

46. IBMMON Agent is causing dumps in our SAP systems

SOLUTION:

- 1) For the dumps TIME OUT and "CPIC-CALL: 'ThCMSEND': cmRc=18 thRc=0" in function module
- "/IBMMON/ITM CCMS ALERTS" -

Change CCMS WAIT value to 180 seconds.

Steps to change CCMS_WAIT value,

- a. Go to transaction code SE16 and put name "IBMMON/ITM" CNFG" in name field, Press F5 to create new entry.
- b. Enter "CCMS_WAIT" in PARM_NAME field and 180 in the VALUE_INT field to set the time-out value to 180 $\,$

sec.

- c. Click save button to save new configuration changes.
- 2) For TSV_TNEW_PAGE_ALLOC_FAILED in function module "/IBMMON/ITM_READ_STATFILE" -

Mostly these errors are because of huge data collection of statistical information so to solve this problem follow the below steps:

- a) Increase sampling interval rate of situations.
- b) Stop situations which are not required
- c) Disable ABAP function module which are not necessary

Manage IBMMON_ITM period time and try to reduce the duration of data collection

47. User id displayed in Transaction performance workspace incorrect.

SOLUTION:

Authorization profiles have been replaced.

REASON:

After upgrading the ITM agent for SAP to version 7.1, authorization profiles of user id were still at the 6.1 agent level

48. SAP agent startup error

SYMPTOMS:

The ITMInstall.trace shows the following error messages:

2012-09-14 11:01:05.564+08:00 ITMinstall.jmanage_agents1 doStartService __ERROR__ (traceKey:1347591665564) Exceptions.UnabletoStartAgent: Exceptions.UnabletoStartAgent at ITMinstall.Utilities.GetPID(Utilities.java:991) .

SOLUTION:

For each instance, the .config file is created at agent configuration time. Each properly configured instance's config file should have this entry: 'KDC_FAMILIES='ip.pipe port: 1918 EPHEMERAL: Y ip use:n ip.spipe use:n sna use:n'. If this entry is not in config file then find out current KDC_FAMILIES rows and manually add this in config file .start the instance.

49. mySAP agent failed to stop.

SOLUTION:

For each instance, the .config file is created from sa.ini file at agent configuration time. So check for the presence of sa.ini file and creation of .config file for instance.

50. Alerts appear in Omnibus with the Instance Name and not with the Agent Name.

SOLUTION:

Node name which is starting with agent name is not available in distribution list so it's as per design. We can identify events on omnibus/TEC only with the help of SAP sys id (in customer case QSQ) or Instance name or Display item of situation. In current design of mySAP agent 620, there is no way to add acronym to: Ins,: Sys or Display Item of situation.

51. The SAP Agent does not see a specific CCMS alert.

SOLUTION:

Close older occurrences check box was checked while selecting monitor sets using /ibmmon/itm_config transaction.

52. Remote upgrade to SAP agent 7.1 fails (.cfg files not getting created)

SOLUTION

Line with sa_config has to be put after all lines with sa_<SID>.config within ConfigInfo file, by changing the sequence before starting with any Upgrade of mySAP Agent from version 6.2.0 IF14 to version 7.1.0.

REASON:

sa_<instance>.config files are not updated, they are old 6.2 config file And the cfg file, that should instead contain the SAP instance connection parameters, is missing.

53. IBMMON AGENT id keeps locking up.

SOLUTION:

For 710 agent check whether RFC library is in place or not. If SAP system is Unicode then place Unicode library otherwise Non-Unicode. If problem persist then try reinstallation and configuration of agent, and create a completely new user for the agent.

54. ABAP dumps ITM-ITM_FAILED_STAT_FILE_READ_REMOTE or ITM-D_STAT_FILE_STATRECS

SOLUTION:

Refer ITCAM For Application: mySAP Agent Best Practice PDF file (Tech Notes, Page number-46, Problem number-1).

55. Agent does not make RFC connection to SAP.

SYMPTOMS:

RFC Open to SAP system via gateway on SAP gateway host.

Explanation: RFC Open failed to <hostname> via gateway on sapgw00.

(50D863FD.0035-1:ksalogmsg.cpp,184,"logmsg") KSA0223 rfc_open: Failed RFC Open to *<hostname>* via gateway on sapgw00..." in log file.

SOLUTION:

Configure agent with correct gateway host.

56. Dump DBIF_RTAB_SQL_ERROR in function module /IBMMON/ITM_READ_STATFILE

ERROR:

Short text: SQL error occurred in the database when accessing a table.

"DBIF_RTAB_SQL_ERROR" " "

"/IBMMON/SAPLITM6" or "/IBMMON/LITM6U62"

"/IBMMON/ITM READ STATFILE"

REASON:

This usually indicates a memory corruption in the pointers of the free list. This happens because of attempting to find some free space in a segment.

Causes and impacts are:

- Oracle memory corruption.
- PROCESS FAILURE or POSSIBLE BLOCK CORRUPTION.

SOLUTION:

- Drop and rebuild indexes for table
- Flush data base cache memory.

57. Is 620 mySAP agent works correctly with 710 transports?

SOLUTION:

The transports for 7.1 are not compatible with the 6.2 agent and there is not a simple way to get the "User Activity" to work in this scenario, the agent is not compatible.

58. Does SAP 6.2 agent support Live Cache and Max DB

SOLUTION: SAP agent does not support monitoring of Live Cache and Max DB.

59. Delay in collection of system log data so that situation is not getting triggered.

SOLUTION:

For 620 agents, upgrade agent to 620IF16.

For 710 agents, upgrade agent to 710FP1.

60. Agent doesn't support SAP 7.31

SYMPTOMS: The data object "RZLLITAB" has no component called "IPV6_ADDRESS", but there is a component called "IP ADDRESS".

SOLUTION: SAP agent till 620IF15 and 710IF1 doesn't support SAP 7.31. To support 7.31 upgrade agent to 710FP1.

61. Default situation for SAP Message Server UP/Down not working?

SOLUTION: Create new situation with formula Field Name == 'status' AND MISSING (Field Value) == ('ACTIVE').

REASON: For each situation separate call is made to related function module. When message server goes down, there is no connection to message server so no value is returned and hence default situation don't get triggered.

62. Multilingual support of SAP Agent

SOLUTION:

SAP Agent is Multilingual and supports multiple platforms.

63. Situation for monitoring status of HTTP is not working.

SOLUTION:

Check whether function module /IBMMON/ITM HTTP SRVS is enable or not.

Steps are:

- 1) Logon to SAP GUI.
- 2) Enter transaction code SE16.
- 3) Enter table name as /IBMMON/ITM_CNFG.
- 4) Press F7 then F8.
- 5) Check for the entry like

PARM_NAME =/IBMMON/ITM_HTTP_SRVS and VALUE_CHAR=NO.

If this entry is in table then delete this entry (clicks on row containing this entry or check that row and press Shift+F2 twice).

REASON:

PARM_NAME =/IBMMON/ITM_HTTP_SRVS and VALUE_CHAR=NO.

Above entry in ITM_CNFG table means data collection for this function module is disabled. So when situation for http makes a call to this function no data is returned and hence situation doesn't trigger.

64. 'IBMMON_AGENT' User not created while import

Make sure the password is correct and then verify the user is created in SAP system. Use 'SU01' transaction code to verify the user exists or not, if it doesn't exist, there are three possible reasons:

- 1) Use Central User Administration (CUA) to manage SAP user and password
- 2) Specify client number when install ABAP transport into SAP system.
- 3) There is a complex password policy.

Note: First two conditions are mentioned in **ITCAM for Application: mySAP Agent Best Practice** (Problem 5, Page number 50)

Customer using complex password policy:

Problem 1:

'IBMMON_AGENT' user is not created, when complex password policy have been applied.

Solution: APAR: IZ66593

Abstract: User for mySAP agent is created as communication user not as system user.

Additional Information: Options are available so you can configure the agent user password and communication type in a property file.

How to change default password during importing transport:

- 1) Create a file named transport.prop under SAP DIR_TRANS/bin directory.By default, the 'DIR_TRANS' value should be like /usr/sap/trans on UNIX/Linux platform and C:/usr/sap/trans on Windows platform. The value of the 'DIR_TRANS' can be retrieved by 'RZ11' transaction code on SAP system with inputing 'DIR_TRANS' in the Param.Name input field.
- Append a line as below into transport.prop to change the default password password=<YourPassword>
- Append a line as below into transport.prop if it needs to change the communication type of the agent user. See notes for communication type, for example, logontype=C
 - logontype=<YourCommunicationType>
- 4) Save all changes and grant read and write authority to the corresponding SAP admin user.
- 5) Import the ABAP transport packaged in this fix.

• Problem2:

'IBMMON_AGENT' user created but getting 'No RFC Authorization for function module RFCPING' error in Test Connection.

Solution: Follow SAP note 1108662

Add the function group SYST to the RFC authorization. Add the function group "SYST" to the default role SAP_BC_WEBSERVICE_SERVICE_USER in the authorizations for "Cross-application Authorization Objects" in the area "Authorization Check for RFC Access" and the object "Name of RFC object to be protected" and save and activate this role. You should then execute a user comparison for this role.

Check if '/IBMMON/AUTH' profile is assigned to the user or not.

1) Check whether '/IBMMON/AUTH' profile is created or not, if it doesn't exist, Create it and assign roles to this profile as specified below.



2) Assign the profile created to it as below



• **Problem 3:** The managed system name is changing from day to day Applicable when: Single hosts (no clustering) have multiple mySAP instances on it

Solution: It is expected behavior and agent is behaving as per the design.

In the normal scenario at the time of start-up to fetch the MSN(Managed Server Name) agent uses the "dbhostname" from the data returned by the function module /IBMMON/ITM_HOSTS for the SUBSYSTEM_ID part in MSN and register this name to show on TEP, In case if it fails to register this name then it uses the SAPHOSTname for the SUBSYSTEM_ID part instead of dbhostname. Whenever it is taking the SAPHOSTname instead of dbhostname there is RFC communication failure with RFC error: Error message: No RFC authorization for function module RFCPING due to which it is not able to register the MSN with dbhostname and hence going for the second option that is to take the SAPHOSTname instead of dbhostname.

• Problem 4: DDIC User is locked.

IBMMON AGENT is locked then

Solution:

- 1) Go to transaction SU01
- 2) Enter name of user: IBMMON_AGENT
- 3) Unlock the user.



- **Problem 5:** User is not allowed to create another user.
- 1) Logon to SAP GUI
- 2) Enter transaction code SM37
- 3) Enter job name as ITM CREATE USERID CLIENT ClientNum
 - a. Note: Here ClientNum is Client number where you are importing transport. For example, If you are importing on Client 800, please give job name as ITM_CREATE_USERID_CLIENT_800
- 4) Press F8 to execute
- 5) If Job exists and status is complete/finished then check for job log of that job.
 - a. If job log contains following statement:

You are not authorized to create users

That means user is not authorized to create another user(which is IBMMON AGENT)

Solution: Provide authorization to user to create another user and then import.

65. RFC lib version for 710 and 711 agent

As per SAP agent user guide RFC lib 7.10 or 7.11 are supported. Customer need to download 7.10 or 7.11 RFC and place in the agent candle home location which is used only by SAP agent.

There is some further information that customer should be aware of.

- 1. SAP Agent 710FP1 only supports Classic RFC library till Classic RFC library version 7.11
- 2. There are 2 kinds of libRFC available Classic RFC and NetWeaver RFC.
- 3. Support for claissic libRFC will end on 31/3/2016.
- 4. Customer can continue to use SAP Agent 710 FP1 with Classic libRFC
- 711. Classic RFC 711 is available from Service Marketplace from archive directory.
- 5. SAP can continue to use higher version or whatever is available like SAP side uses RFC7.2, and Tivoli uses 7.1. Does it have worked with no problem?
- -Yes, this scenario work without any issue.

66. mySAP agent do not return syslog information from SAP V7.0.2.

Reason: The agent does not return system log information from SAP V7.0.2 server due to SAP API change. **Solution:**

Defect: 166690

Abstract: SAP Agent SYS Log not working on SAP system 702

Additional Information: This problem is specific to SAP V7.0.2. The agent does not return system log information from

SAP V7.0.2 server due to SAP API change.

SAP agent 7.1 which includes fix for mentioned defect.

67. Situation alarm problem / sent repeating events to OMNIBUS.

Reason: The problem was caused by the way the old CCMS data collection method was retrieving CCMS alerts. **Solution:** With the new CCMS method, that is based on time intervals, beside solving 9912 issue, it also avoid to generate duplicated alerts and duplicated situation event.

68. IF0012 ABAP transport failed to import into 4.6C/D SAP system due to syntax error ABAP dump. Solution:

APAR IZ98715 fixed in republish 620-IF00013.

Abstract: ITM WAREHOUSE DATA NOT CORRECT

Additional Information: IF0012 ABAP transport failed to import into 4.6C/D SAP system due to syntax error ABAP dump.

69. SAP Agent instance go offline automatically on Windows

Solution: http://www-01.ibm.com/support/docview.wss?uid=swg21458817

70. Mismatch between SAP data transactions and Tivoli Datawarehouse

Solution: APAR IV15697 which is fixed in 620IF15 to get correct values.

71. Error in workspace data, No data on TEP

Symptoms: When clicking on TEPS workspace, the agent doesn't bring back information even after 5 minutes, just shows hourglass.

The Processes workspace shows following error: KFWITM217E, rc 202

OR KFWITM217E Request error: SQL1_CreateRequestFailed, rc=202

Workaround: One could restart the agent to get it to bring back information, but should follow solution given below.

Solution: Run "tacmd refreshcatalog" to refresh the TEMS catalog – this appears to clear the 202 error in the processes workspace as well as the hang issue.

72. Column CPUTIME8 in Table KSAPROCESS for Application KSA Not Found.

TEMS log shows:

(51814ADF.0000-340F:kdspmcat.c,978,"CompilerCatalog") Column CPUTIME8 in Table KSAPROCESS for Application KSA Not Found.

(51814ADF.0001-340F:kdspmcv.c,367,"CreateViewPlan") Catalog information error, status = 202

(51814ADF.0002-340F:kdsvws1.c,1403,"CreateServerView") Bad status from VPM1 CreateViewPlan, 202

(51814ADF.0003-340F:kdspac1.c,2006,"VPA1 CreateRequest") Create request failed with return code 202

Solution:

Following command to refresh caalog entries for TEMS, without resarting it:

tacmd refreshCatalog [{-s|--server} TEMSNAME]

CPUTIME8 is an attribute added in 7.1 agent release.

73. SAP agent startup problems

Problem: Starting SAP agent fails with "KCIIN0206E Could not start/stop agent: java.lang.NullPointerException"

Solution: http://www-01.ibm.com/support/docview.wss?uid=swg21639953

74. Delay in System Log collection by SAP Agent.

http://www-01.ibm.com/support/docview.wss?uid=swg21620384

ITCAM Agent for SAP Applications, 7.1.0-TIV-ITM_SAP-FP0001:

http://www-01.ibm.com/support/docview.wss?uid=swg24034776

APAR: IV33183

Abstract: SAP AGENT SOMETIMES FAILED TO COLLECT SYSTEM LOG DATA

Additional Information: With 620 IF0015 mySAP agent sometimes failed to collect System Log Information. As a result all of situation of SAP syslog monitor delays around 15 minutes. Issue is fixed in this build and change is done to modify the default value of SYSLOG_FREQUENCY. Default value is 600 seconds.

How To change SYSLOG_FREQUENCY.

1. For Windows: Set SYSLOG FREQUENCY=180 in a agent specific configuration file

Example: <candle home>\tmaitm6\ksaenv_<sid>

2. For Non-Windows: Set SYSLOG_FREQUENCY=180 in a agent specific configuration file

Example :<candle home>/config/sa_<sid>.config

Recommended values are between 5 to 10 minutes.

75. Don't get all CCMS-information

By default mySAP agent 620(with any IF) / 710(with any IF/FP) do not show alert messages in "Message(Unicode)" attribute field if SAP server being monitored is Non-Unicode.

Solution: If needed to use same field for Unicode and non-unicode system, then use "Message" attribute field instead "Message(Unicode)", it will work for both SAP server (Unicode and Non-Unicode).

76. Not able to view workspaces

Symptoms: The ITCAM for mySAP workspaces are not being populated even though the ITCAM agent connected successfully to mySAP. Only the SYS and INS names appear but nothing underneath it.

Solution: Reconfigure TEPS and restart the browser. If still facing problem, clear Java cache after reconfiguring TEPS, and then restart the browser.

77. Why there are no alerts from Solution Monitoring in TEP?

Symptoms: There are no alerts from Solution Monitoring work center in TEP using Solution Monitoring -> Open Alerts workspace (Solution Manager 7.1)?

Answer: In Solution Manager 7.1, alerts are collected using new infrastructure MAI (monitoring and alerting infrastructure). The method is different compared to earlier versions of SAP Solution Manager. SAP Agent 710 workspaces for getting Solman alerts will not work for Solman 7.1, since the methodology for collecting alerts is different. BPM alerts is not a part of MAI, hence SAP agent 710 workspace for BPM alerts will work.

78. Cannot import SAP transport

Problem: IBM Tivoli Composite Application Manager Agent for SAP Applications Version 710FP1, is generating dumps on BAP environment.

Symptoms / Error: ORA 1732 – Data Manipulation Operation not Legal on this view

Solution: Updating the parameter value of the view can resolve this issue. Please refer SAP Note 1922481.

https://websmp230.sap-ag.de/sap/support/notes/1922481

Note:

- 1. This ORA error is related to oracle database and SAP is not responsible for creating such errors.
- 2. We recommend verifying with SAP admin and DBA before making any changes.
- 3. Please follow SAP Note 1922481 on this.
- 4. SAP agent calls some SAP API which internally calls SAP internal API and database query.

79. SAP agent crash

Problem: SAP Agent crash when SAP instance is down Or SAP agent gets crashed when SAP system is down.

Solution: Please refer SAP Note 1135135 for same.

http://www-01.ibm.com/support/docview.wss?uid=swg21458817

This may occur when dev_rfc.trc reaches 8 MB.

Due to limitation of SAP library as per technote 1135135 SAP agent is crashing as soon as dev_rfc.trc file reached to 8MB. Delete the dev rfc.trc if it reached to 8MB.

- 1. Stop agent
- 2. Take backup of the <candle home>/logs/<SID>/dev rfc.trc
- 3. Delete file <candle home>/logs/<SID>/dev rfc.trc
- 4. Start agent In case of 620 agent if there is same issue, upgrade sap RFC libraries to 710 rfclib.

80. Short dump by IBMMON_AGENT.

Problem: ITCAM for SAP 7.1 is generating dumps as

Short dump "130918 07003 <SAP Hostname> IBMMON_AGENT"

Transaction Canceled SY002 function module "IBMMON/ITM_CNFG" not found

Solution: This is known limitation after new CCMS Design. Agent side and ABAP side should be at same level. New CCMS

design is included from 620-IF0016 and 710-FP0001.

81. 620IF15 transport import failure on AIX.

Problem: Failed to import transport of 6.2 IF15 on AIX 5.3 with rc 12 as following:

Program terminated (job: RDDEXECL, no.: 11272600)

See job log

Execution of programs after import (XPRA) End date and time : 20130906112742 Ended with return code: ===> 12 <===

Root Cause: Program SAPLSTUW was not active on SAP side.

Solution:

Refer below steps to activate this program:

- 1. Go to SE38 on SAP GUI.
- 2. Enter "SAPLSTUW" in Program name.
- 3. Enter Display.
- 4. Press Program-Generate.
- 5. Press Ctrl+F3.

NOTE: Please consult with your SAP admin before making any change in SAP program.

82. Short dump related to Job Log.

Problem: Exception condition "CANT_READ_JOBLOG" raised for /IBMMON/ITM_JOB_LOG.

Root Cause: if job log file is deleted or not present at storage location or there is problem related to accessing log file then while accessing job log details such exception is raised.

Solution: Exception is handled and syslog entry is generated with message "CANT_READ_JOBLOG". On TEP will get message like "Unable to read joblog". This fix is available in 710-FP001-IF0001 and 711-IF0001. Under Defect: 38995 Abstract: Tivoli SAP agent dumping within SAP on UNIX server

Workaround: For 620 Disable function module /IBMMON/ITM JOB LOG or upgrade to 710 SAP agent.

83. TEMS connection.

Problem: Unable to connect to TEMS via ip.spipe / Status of SAP Agent becomes "Unknown" on TEP.

Symptoms: Following error messages in log file:

("static_constructor") SSL interface module kdebe unavailable

("bind_setup") Transport not found:IP.SPIPE

("KDE1I Keyword") KDE TRANSPORT error, "PORT: 3660" ignored

Root Cause: candle home had kdebe.dll file in 32 and 64 bit TMAITM6

Solution: Keep kdebe.dll file in the 32/64 bit TMAITM6 folder depending upon system type and check if same file is present at location candle home\GSK* x64\lib64 for 64 bit or candle home\GSK*\lib for 32 bit. If not, copy it there.

84. Error messages in system log.

Problem: getaddrinfo / gethostbyname error messages logged in SAP system log.

Root Cause:

Agent not configured correctly.

SAP server not ready with transport or no transport

SAP host name or gateway not reachable.

Solution:

- Logon monitored SAP system via SAP GUI and run 'SE16' transaction code.
- 2. Enter '/IBMMON/ITM_CNFG' as the table name.
- 3. Press 'F5' to create a new entry into this table.
- 4. Enter 'DISABLE_LOGON_IP' in the 'PARM NAME' input field and 'YES' in 'VALUE CHAR' input field.
- 5. Save the changes.
- 6. Restart SAP agent.

NOTE: Above solution only works if sap agent is connected using Application server Mode. In case of Logon Group above solution will disable logon information.

Refer http://www-01.ibm.com/support/docview.wss?uid=swg21407943

85. ABAP exception in /IBMMON/ITM_CCMS_ALERTS.

Problem: Exception "CX_SY_CONVERSION_OVERFLOW" in function module /IBMMON/ITM_CCMS_ALERTS.

Root Cause: Overflow condition causes ABAP dumps during CCMS log processing by SAP agent. This occurs when the Alert Unique Number exceeds 10 digit length.

Workaround: For 620 Disable /IBMMON/ITM_CCMS_ALERTS function module or reset CCMS alert unique identifier

number on SAP system.

Solution: APAR IV47613 fix will be available in 710, 711 future FixPack/IIFix.

86. 711GA transport import failure.

Problem: TRANSPORT IMPORT FAILS FOR ITM_CONN_CHECK FUNCTION MODULE for 711GA agent.

Root Cause: SAP SP version check logic in SAP agent v711 GA. **Solution:** APAR IV53685/IV53685 fix available in 711-IF001.

87. Database details workspace.

Problem: Attributes like Object Type, Size Used (kb) for Oracle Database Details workspace and Total Used (%) for Oracle Database Summary workspace are empty.

Root cause: A standard transaction code for oracle database doesn't show value for mentioned attributes.

Solution: Verify attribute values with the output of transaction code for database details and summary. Use transaction code DB02 to check values.

88. RFC/CPIC error.

Problem: Getting RFC error/CPIC error on SAP system.

Root Cause: When sap agent is trying to connect to SAP server because of following things RFC/CPIC error can occur:

- 1. Network read error
- 2. Unable to establish connection / Connection failure
- 3. RFC server program got terminated

Solution: SAP API generates the RFC/CPIC error when ABAP code calls synchronize RFC calls. These RFC/CPIC errors can be ignored. Data collection Failure in CCMS is already handled in CCMS. Customer can ignore this error.

89. SAP system up/down situation.

Problem: sa SAP SYSTEM DOWN ALERT did not trigger

Root cause: Wrong situations used to monitor SAP system down.

Solution: Use R/3_Alert_System_Down and R/3_Alert_System_Up to detect SAP system (Application server)

Down/Up. For application instances up/down monitoring, use R3_Instance_Down_Crit/R3_Instance_Down2_Crit

situation.

Refer http://www-01.ibm.com/support/docview.wss?uid=swg21634298

90. 711GA transport import failure.

Problem: Installation of transport files failed for SAP agent 7.1.1(ITMK711_00098U).

Root cause: Table /IBMMON/ITM_ALIX could not be activated

Program /IBMMON/ITM CL BC ALRT REACT==CP, Include

/IBMMON/ITM CL BC ALRT REACT==CU: Syntax error in line 000010

Field 'IF_ALERT_DYN_COFIGURATION' is unknown.

Error is because of BADI transport on Non-MAI configured system.

Solution: Use non BADI Transport if SAP system is not MAI configured. Applicable for release 711GA and 711-IF0001.

91. Syslog errors on SAP system with database DB2 on zo/s.

Problem: SAP system (database DB2 on Z/OS) receiving errors in System Logs.

Root cause: DB2 on z/OS is not supported by sap agent.

Workaround: Disable function module /IBMMON/ITM_DB6_CONFIG_PAR.

Stop situations which are running for the above function module.

Refer http://www-01.ibm.com/support/docview.wss?uid=swg21666862

92. 'Unable to find central instance' error.

Problem: R/3 agent unable to find central instance.

Root cause: Monitoring Agent for SAP collector Code could not find the R/3 Central Instance.

Solution: Add entry of ROLLKEYFORMAT in table /IBMMON/ITM_CNFG. Refer http://www-01.ibm.com/support/docview.wss?uid=swg21329545

93. Support not getting updated.

Problem: Support files are not getting updated on TEP client and reconfiguration fails with error

message with 620-IF00016.

Root cause: Agent is not properly upgraded.

Suggestion: Re-setup TEPS or install TEPS in another candle home.

94. Problem with KSAMTSTATE warehouse table.

Problem: Error in saving data to KSAMTSTATE warehouse table after agent up gradation.

Symptoms: Following error messages in TEMS log:

Column SAMPLENO in Table KSAMTSTATE for Application KSA Not Found.

Catalog information error, status = 202
Bad status from VPM1_CreateViewPlan, 202
Create request failed with return code 202

Sit UADVISOR KSA KSAMTSTATE: Unable to lodge - giving up.

Root cause: No proper support.

Solution: Upgrade to latest supports for installed agent's version.

95. No agent connection after changing IP address.

Problem: Agent does not remain running after changing SAP server IP address on non-windows.

Symptoms: Agent stop

Root cause: Wrong value of KDEB_INTERFACELIST.

Solution: Update value of KDEB_INTERFACELIST to new IP address in sa.ini, sa_<instance_id>.config,

sa_<os_code>.config located at candle_home/config.

96. SAP agent crash.

Problem: SA agent crashes and TEPS workspace is empty

Symptoms: Following error messages in log file:

KSA0911 errmsg: -911 ***Failure on call to Fatal RFC error - program ending

KSA0911 errmsg: RFC ERROR SNAPSHOT at 04:46:10 on 02/10/2014 KSA0911 errmsg: Parameter 1 : RFCTYPE UNKNOWN HANDLE

KSA0911 errmsg: Error exception: SYSTEM FAILURE

KSA0911 errmsg: Error key: RFC_ERROR_SYSTEM_FAILURE

Root cause: Agent and ABAP transport was not at the same level.

Solution: Get agent and ABAP transport to the same level.

97. File grows too large.

Problem: /opt/IBM/ITM/bin/.log file grows too large. **Root cause:** .log file in bin directory is increasing in size.

Solution: .log file in bin directory is not generated by the SAP agent. Verify if other agent or application is not using this

file before deleting log file.

98. SAP agent connection closed without message.

Problem: SAP agent RFC connection failed. **Symptoms:** Following error messages in log file:

Error: *** Failure on call to RFC Open Connection

KSA0300 errmsg: RFC ERROR SNAPSHOT

KSA0300 errmsg: Parameter 1 : KSA0300 errmsg: Error exception:

KSA0300 errmsg: Error key : RFC IO10

KSA0300 errmsg: Error status: CODE=CM_DEALLOCATED_NORMAL STATUS=CM_NO_STATUS_RECEIVED

DATA=CM NO DATA RECEIVED ID=92186034

KSA0300 errmsg: Error message: connection closed without message (CM_NO_DATA_RECEIVED)

KSA0300 errmsg: Error instat : IO HANDLE=1 DRV=EXT LINE=1221 CODE=10

Root cause: Changed the system date of the machine in which SAP is installed but did not restart the SAP system.

Solution: After changing the system date one should restart the SAP system.

99. Prefix shown for Navigator view of a SAP system

Problem: Prefix shown for Navigator view of a SAP system **Workaround:** Some offline entries need to be removed.

- 1) Stop the agent.
- 2) Clear offline entries from TEP as follows:
 - a. Click on 'Enterprise' parent node present in navigator tree
 - b. Right click on 'Enterprise' node and select workspace and then select 'managed system status' workspace.
 - Select all entries marked 'OFFLINE' and right click on it and 'clear offline entry'.
- 3) Clear offline entries from command prompt as follows:

- Login to Tivoli Enterprise Monitoring Server (TEMS) using below command: tacmd login {-s]--server} {protocol://!host:port!} {-u]--username} username {-p]--password} password {-t]--timeout} timeout!
- b. Execute following command to remove all offline entries, tacmd cleanms ?a
- 4) Start agent and check swhether prefix for navigator is removed or not. If it is still not removed then go to next step.
- 5) Perform steps 1 to 3 again without starting the agent.
- 6) Stop Tivoli Enterprise Portal Server (TEPS) and Tivoli Enterprise Monitoring Server (TEMS).
- 7) Start Tivoli Enterprise Monitoring Server (TEMS) and Tivoli Enterprise Portal Server (TEPS)
- 8) Start the agent and check whether the issue is resolved or not.

Root cause: The prefix for the Navigator view can be edited manually

E.g mySAP: CLP-clpapp12_CLP_12: Ins

Here 'mySAP' is the added prefix

Solution: The prefix can be removed by manually editing the navigator view name for the specific SAP system.

100. mySAP 620 agent doesn't start on non-windows platform

Environment:

- 1) ITM 623FP01
- 2) mySAP 620 Agent

Root cause: Framework is changed to a lower version then 623FP01

Solution: Re-install OS 623FP01 agent.

Technote: http://www-01.ibm.com/support/docview.wss?uid=swg21408506

101. After the transport file is imported, the transport logs show warning messages.

e.g. Messages like:

- 1) "Activate domain /IBMMON/ITM MANAGED AND OR"
- 2) "Activate data element /IBMMON/ITM FILE NAME"
- 3) "Actions to be performed for dependent objects: DYNP Timestamp"

are displayed in logs.

Solution: Warning messages can be ignored since they imply that specific table or object is not activated when ABAP function module is imported for the first time.

102. Alert fails to trigger expected situation.

Solution: This is possible only when:

- 1) The managed system node or the origin node is not in the 'Distribution List' over which the alerts are triggered
- 2) The alert number of the triggered alert is less than maximum alert number of the alert ever processed by the origin node which indicates that the triggered alert has already been processed before and needn't be processed again and hence no need of raising the situation for it again.

103. Cannot start the agent on Linux/Unix platform even if configuration process is successful due to inclusion of specific word in the path for candle home.

Cause: Path to candle home contains the string 'SAP'

Solution: (For the below procedure, <candle home> refers to a candle home path on that specific machine for a specific user)

1) Make <candle home>/config/.ConfigData the current

working directory by using command:

cd <candle home>/config/.ConfigData

2) Make a backup copy of 'ksaenv' file by using command:

cp -p ksaenv ksaenv.bak

- 3) Edit 'ksaenv' file.
- 4) Find the line:

<platform name>]CANDLEHOME]

5) Change the above line to:

<platform name>]CANDLEHOME]<candle home>]

6) Find the line:

TAQ]BK2NETWORKPROTOCOL]none]

7) Insert a new line immediately after above line with content:

TAQ]CANDLEHOME]<candle home>]

- 8) Save the changes.
- 9) Try to re start the agent.

If the above procedure fails to have the desired result, uninstall the ITM environment by running the following script as follows:

<candle home>/bin/uninstall.sh

and re-install the ITM environment with the candle home path that doesn't contain the 'SAP' word.

104. mySAP agent does not return database values

Symptom: The part of Oracle to Agent SAP does not display data in the portal Server

Solution: There are 2 approaches to solve this problem:

NOTE: Please involve or get prior approval of Database Admin before performing any DB related operations.

Approach 1:

<u>Cause</u>: This might be due to Oracle data collection problem which occurs due to:

- 1) mySAP program 'RSDB_TDB' which collects the Oracle statistics does not work correctly
- 2) Too many data rows are stored in MONI

<u>Symptoms</u>: Collection might stop or run sluggishly on busy systems Solution:

- 1) Run the specified program 'RSORAUDO' with the recommended cleanup options.
- 2) Update the Oracle statistics manually through transaction 'DB02'

Approach 2:

<u>Logic</u>: The Oracle information is provided to agent by SAP system

Specifically from MONI performance statistics table data

Symptom: Low frequency of updations to MONI performance statistics table data

<u>Solution:</u> The frequency of making updates to MONI performance statistics table data can be increased by:

1) Perform database checks from the DB02 transaction, which executes the program 'RSORAT0D'

2) The TEP offers a link to manually refresh the Oracle statistics also, similar to the 'DB02' refresh, program 'RSORAT0D' is submitted for execution in the background. The ksaagent will capture metric changes from the SAP system as soon as the changes are available in SAP side statistics table(i.e 'MONI'). The advantage is agent does not need to be restarted.

Note: More frequent updates of MONI data can be achieved by executing 'RSORATOD' more frequently in the SAP system or even creating an ITM situation that fires periodically and has a run action of executing ABAP 'RSORATOD'. The execution of 'RSORAT0D' is expensive and should not be executed more than once every few hours.

105. TSM backup is failing while mySAP agent is running. Solution:

- 1) Check DB2 parameters that can affect the TSM backups
- 2) Change mySAP agent configuration as below:
 - a. Stop mySAP agent
 - b. Set 'SAPCLOSERFC' and 'SAPTRACERFC' to default value
 - c. Start mySAP agent
 - d. Check whether TSM backup issue is solved or not.

106. SAP agent creating ABAP dumps for /IBMMON/ITM_VERIFY_LOGON

Solution: It's necessary to see if the agent is upgraded to latest version. Also, It can be checked if the above problem can be solved by changing the password to all lowercase letters.

107. Transport import fails for the SAP 711 agent.

Environment:

SAP version: SAP ECC 6.0

Transport to be imported: K711 00098U.ITM

Settings: Situation sampling interval = 1 hr

R711 00098U.ITM

Problem faced: After running the import command, following error message is displayed:

"Program /IBMMON/SAPLITM7: Syntax error in line 000001

REPORT/PROGRAM statement missing, or program typeis INCLUDE."

Solution: Latest 711 If001 transport and agent should be used.

108. Situation for ABAP dumps not working properly as per the situation formula.

Environment: SAP agent 7.1

Problem faced: The situation 'IF COUNT R/3_ABAP_Dumps.Dump_Title >=15' clears even when there are 15 or more

dumps in the SAP system.

Sampling interval on SAP side = 1 hr (set by default)

Solution: Customer can increase 'ITM PERIOD' to up to 4 hours, 59 minutes, 59 seconds. This will increase the time duration when the situation will remain true (not clear).

Note: The limitation of max value for 'ITM' PERIOD' is to limit the max load of data the SAP agent can handle.

109. ABAP dumps in function module /IBMMON/ITM_WORK_PROCESSES.

Environment: Transport version is ITMK710 00105U

Agent is 711fp1if1

Required Transport: ITMK710_00106U

Solution: Upgrade the transport to required one.

110. When trying to import transport on non-unicode SAP system, following error is encountered:

Program canceled (job RDDEXECL, number 15260600)

Environment: SAP basis is 740 Agent is SAP 7.1

Solution: Agent 7.10 is not compatible with SAP Basis 740 . SAP Agent 711 onwards we do support SAP Basis 740 but

only Unicode.

111. Transport import failed with error code 12.

Problem faced: Following error is logged while importing transport:

Transport controlprogram tp ended with error code 0012

Root Cause: Customer had changed the names of transport co-file and data file before actually importing the transport.

Solution: The transport files must be uploaded as it is without changing the name.