

Solution Manager Auto-Reaction Configuration: Enabling Auto-Mail Generation for System offline Alert



Applies to:

Netweaver ABAP Systems (examples based specifically on Netweaver 700 ABAP System).

Summary

Systems registered on to the Solution Manager can be monitored actively or reactively as per configuration. This blog gives a short description of how to configure notification incase critical systems in your landscape go down.

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Introduction

A Solution Manager system is mandatory in any landscape (development, test or production). This is mainly due to infinite capabilities offered by the Solution Manager which helps bring down the overall Total Cost of Ownership (TCO) for the customer.

As a part of Central system Monitoring – a huge landscape can be monitored effectively. Although, this a proactive approach, for critical systems - it is extremely helpful. Even better would be that an immediate notification is sent to the concerned person if a critical system goes down. This would save downtime and overall production loss

A brief method to configure such notification is mentioned in the below section.

Configuration activities on the Solution Manager

CCMS Ping for satellite system

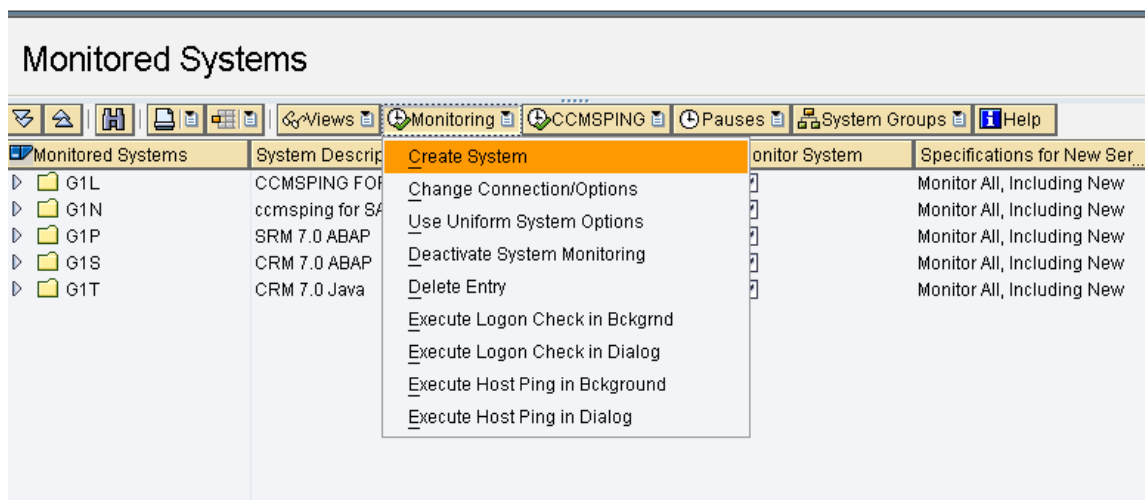
The CCMS agent continuously monitors the availability of a particular satellite system. In order to know when a system goes offline the CCMS ping needs to be configured for the satellite system. CCMS agent itself is installed only once on the Solution Manager.

Installing CCMS Agent on Solution Manager

The CCMS ping agent needs to be installed on the Solution Manager which in turn is used to report the availability of other satellite systems. Proceed with the IMG Documentation of Solution Manager to install and configure CCMS ping agent: SolMan SPRO → SAP Solution Manager → Cross-Scenario Settings → System Availability with CCMSPING →

Transaction RZ21 allows adding satellite systems for availability monitoring using CCMS Ping. Goto tab “Technical Infrastructure” → Availability Monitoring → Configure CCMS Ping Availability Monitoring

Create a new system as shown in the screenshot below:



Give the System ID and proceed with the inputs:

SID and description of system

Message Server name (FQDN)

Service name (sapmsSID) – note that this service needs to be defined in the services file in the Solution Manager Host(servername)

HTTP Port should be 81<SCS Inst number> incase of Java system

Monitoring options checked as shown in the screenshot below

Select the responsible CCMS ping as **CCMSPING.abc1234.00** (one on the Solution Manager)

Once done the entry appears in the list of reporting CCMS ping agents specific to the satellite system. Typically, a few minutes are required to accommodate the data by the CCMS Ping.

System: G1K

Description:

Connection Data: ABAP Message Server

Message Server Host Name: p207034.wdf.sap.corp

IP Service Name: sapmsG1K

Router String:

Connection Data: Java Message Server

Message Server Host Name:

Message Server HTTP Port:

Router String:

Monitoring Options for Application Servers

No Monitoring of Application Servers

Monitor Only Selected Application Servers

Automatically Add New Application Servers to the Monitoring

Ping Monitoring Check Logon

Monitor All Application Servers

Ping Monitoring Check Logon

Monitoring Options for Logon Groups

No Check of Logon Groups

Check Only Selected Logon Groups

Automatically Add New Logon Groups to the Monitoring

Activate Check for All Groups, Including New Groups

Destination of Responsible CCMSPING: CCMSPING.P191081.00

Copy Connection Data and Options

Configuring the Availability Monitoring in RZ20

The CCMS Ping agents report the component wise availability in the transaction RZ20. To check the availability goto tcode RZ20 → SAP CCMS Monitor Templates → Availability and Performance Overview. Screenshot below shows the availability for all the systems reporting via CCMS Ping

SAP CCMS Monitor Templates (Availability and Performance Overview) -

The screenshot displays the SAP CCMS Monitor Templates interface for 'Availability and Performance Overview'. The view shows a hierarchical tree structure under the 'Availability' folder. The 'G1S on p207044' folder is expanded, showing a detailed view of the system's availability status, which is '100 %' and 'Green 09'. The detailed view includes the following information:

- ABAP: Checked by CCMSPING.P191081.00
- Release / Description: 701 - CRM 7.0 ABAP
- System Configuration: SAP NetWeaver ABAP System

Other folders visible in the tree include 'G1L on P207037', 'G1N on p207038', 'RFC-Destinations', 'Instances: G1S', 'Groups: G1S', 'G1T on p207041', and 'G1P on p207039'. The 'GRMG-Tested Availability (Web Components)' folder is also visible at the bottom of the tree.

The satellite system availability should be reported in %age as in the figure above (G1S in this case). The objective is to notify the responsible administrator via mail when the availability of the system goes below a certain threshold value (60% in our case). This way the system gets attention and the respective issue could be fixed.

Configuring Auto Reaction alerts:

Position the cursor on the ABAP/Java availability monitoring node (ABAP in the figure above). The select "Properties" from the menu above (see figure above). This open a set of configurable attributes for the respective selected node. Here the threshold values could be modified as per requirements. Note that the auto-reaction depends on these threshold values. These should be defined carefully in order to avoid false alerts and miss out on the real ones 😊

The "Methods" tab defines which methods are to be used for collections, analysis and auto-reactions.

Properties of: F9UAvailability\G1S on p207044\Availability: G1S on p207044\ABAP: Checked by CC
MTE class: Availability_SysPercent_ABAP

General PerformanceAttribute **Methods** Addnl info

Performance properties assigned from group: Availability_SysPercent_ABAP

Comparison Value

Last reported value Smoothing over last 1 min.
 Average in the last hour Smoothing over last 5 min.
 Average in the last quarter of an hour Smoothing over last 15 mins

Threshold values

Change from GREEN to YELLOW	75	%
Change from YELLOW to RED	65	%
Reset from RED to YELLOW	70	%
Reset from YELLOW to GREEN	85	%

Alert is triggered if the comparative value
 falls below threshold value exceeds the threshold value

Alert text

Message class: RT
Message number: 012
Text: &1 &3 < &2 &3 15 min. avg. value below threshold value (&4 measurements)

Methods allow changing the different function modules for various operations:

General PerformanceAttribute **Methods** Addnl info

Method execution

Start the data collection method every: 240 seconds
In the absence of values deactivate after: 900 seconds

Methods effective for MTE nodes

Data collection method: <NO_METHOD>
Auto-reaction method: CCMS_OnAlert_Email_V2
Auto-reaction method: email if alert
Analysis method: CCMS_AVAILABILITY_CONFIGURATOR
Analysis Method for System Availability

Method assignment

Goto Method assignment and for auto reaction mails select “CCMS_OnAlert_Email_V2” as the method to be used under Auto-Reaction section in change mode

Data collection | **Auto-reaction** | Analysis | Additional Info.

Auto-reaction method

Effectively assigned method

Method name: CCMS_OnAlert_Email_V2

assigned by

MTE: []

MTE class: []

Method is directly assigned to the MTE

Method allocation

Method name: CCMS_OnAlert_Email_V2

Do not execute a method

Use MTE class method assignment

Use method from higher-level node (MTE)

Double Click on the method to get into the control parameters for the method. Here we can define the sender, receiver(s), type of mail, mail subject and content as well.

Method definition

Name: CCMS_OnAlert_Email_V2

Description: Auto-reaction method: email if alert (Language: EN)

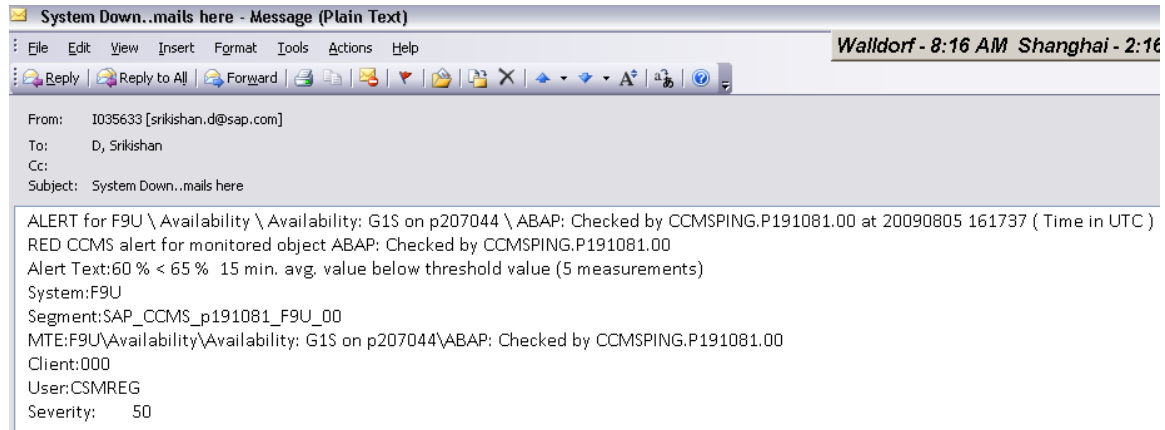
Execution | **Control** | **Parameters** | Release | Addnl info

Transfer parameters for method execution

	Parameter Name	Parameter value
1.	SENDER	I035633
2.	RECIPIENT	srikishan.d@sap.com
3.	RECIPIENT-TYPEID	U
4.	REACT_ON_ALERTS	<optional >
5.	SUBJECT_ALERT	System Down
6.	SUBJECT_ALERT_CONT	..mails here
7.		
8.		
9.		
10.		

In change mode, add your mail address in the RECIPIENT field. Note: If you want to define different recipients for different alerts, you should copy the complete method definition from CCMS_OnAlert_Email_V2 to RZ21. Parameters are then assigned to the new method in transaction RZ21 -> Method definitions and assigned to the appropriate node in the alert tree.

Save all the changes. SCOT needs to be configured on the solution manager systems incase mails are to be sent to remote addresses. Example mail sent when G1S system goes offline:



Note: here we generate auto reactions for availability only. Depending on requirements, auto reactions can be generated for other important parameters like Dialog response times, DB properties etc.

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