

User Guide

PUBLIC

Focused Insights for SAP Solution Manager

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# Tactical Dashboard 7.2

ST-OST 200 SPS 9



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# Document History

Version	Date	Change
1.0	2017-06-15	Initial version
1.1	2017-07-31	Support Package 1
1.2	2018-07-12	Support Package 2
1.3	2019-02-21	Support Package 3
1.4	2019-07-19	New scenario: SAP HANA Memory Update in several sections
1.5	2020-01-07	Update of the maintenance scenario section
1.6	2020-05-14	New system Type: WEB DISPATCHER
1.7	2021-01-26	Support Package 7
1.8	2021-05-20	Support Package 8
1.9	2022-01-24	Support Package 9

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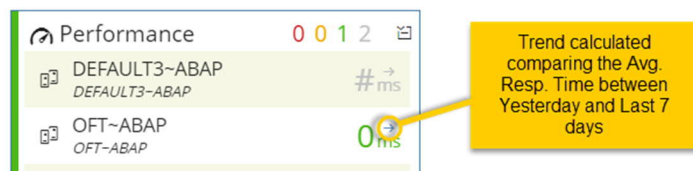
# 1 Introduction

The Dashboard allows reporting the status of a selected list of systems and KPI's that can be configured with individual thresholds based on a pre-defined set of Scenarios:

- Performance
- Availability
- Hardware Resources
- Database Growth
- Database Backup
- Users Load
- Transactions Performance
- Maintenance
- Security
- Operations Dashboard Instance
- PI Monitoring
- Hana Memory

Far from being just a “real time” monitoring tool, the objective of the dashboard is to make it easier for decision makers to take tactical choices. For this purpose, it provides different trend indicators that can be used to understand how the system is behaving or if there are anomalies in specific areas.

This is done by comparing recent period (e.g. yesterday or last week) with averages calculated on a longer period (e.g. last 6 months or last 12 months).



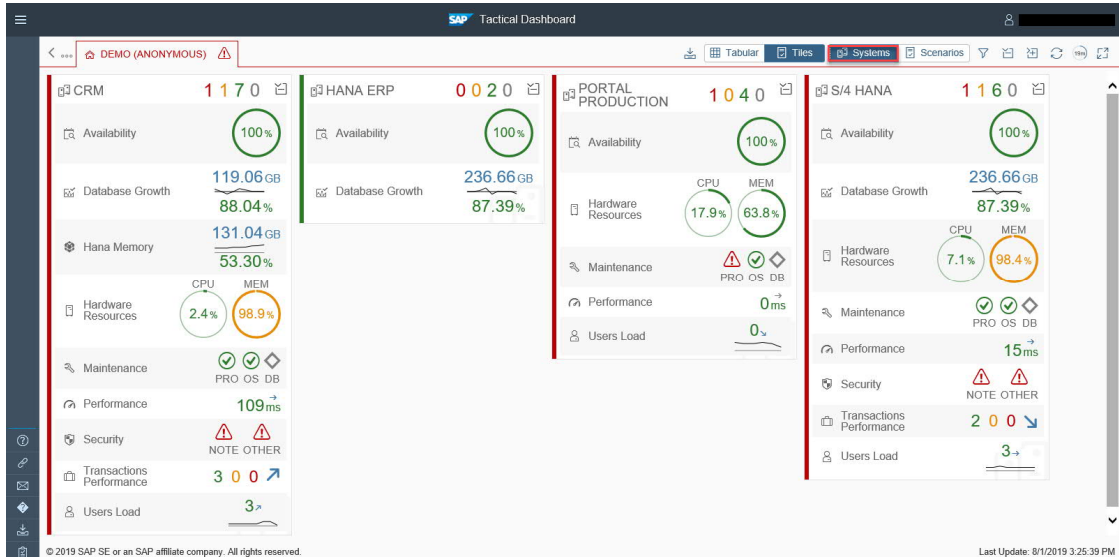
Two views can be used to display information in the Dashboard, *Tabular* and *Tiles*.

In *Tabular* view, the content is organized inside a cross-table with 1<sup>st</sup> column is the systems, and the subsequence columns are for different scenarios like in image below. The content is also simplified to fit in the table.

The screenshot shows the SAP Tactical Dashboard interface. The top navigation bar includes the SAP logo, 'Tactical Dashboard', and a user profile icon. Below the navigation bar, there is a breadcrumb trail: '< ... DEMO (ANONYMOUS) >'. The main content area is a table with the following data:

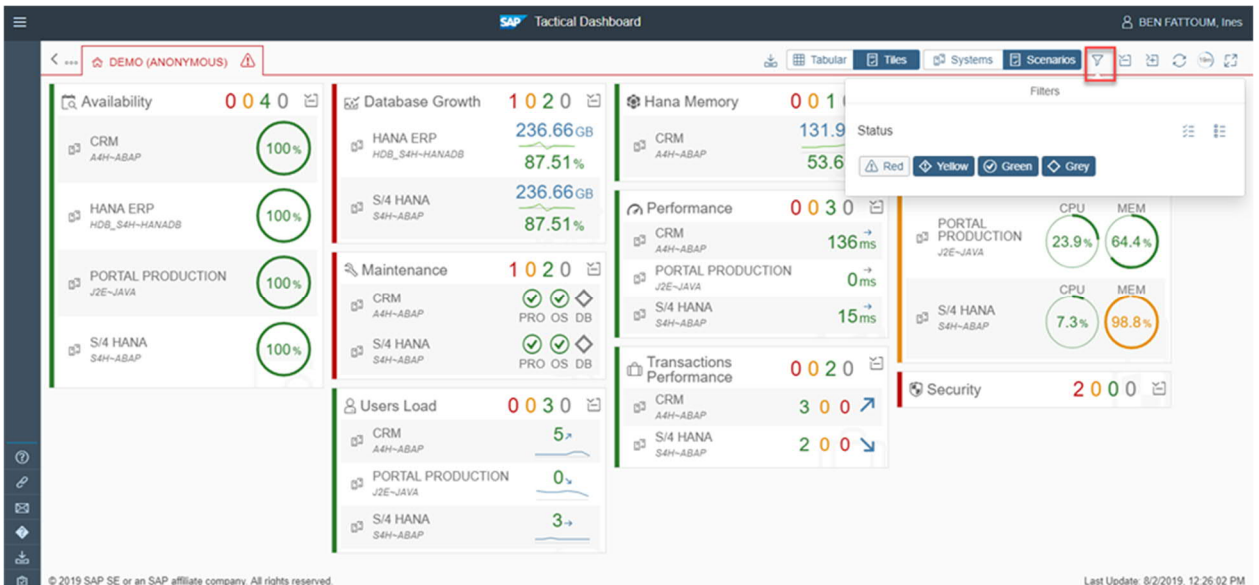
System	Availability	Hardware Resources	Database Growth	Database Backup	Users Load	Transactions Performance	Maintenance	Security	Operations Dashboard Instance	PI Monitoring	Hana Memory		
CRM	100%	119.06 GB:88.04	C-2.4%:M-98.9%	☑					109 ms	⚠	0	3	131.04 GB:53
HANA ERP	100%	236.66 GB:87.39											
PORTAL PRODUCTION	100%		C-17.9%:M-63.8%	⚠					0 ms			0	
S/4 HANA	100%	236.66 GB:87.39	C-7.1%:M-98.4%	☑					15 ms	⚠	0	3	

In *Tiles* view, the content is organized in tiles. In this view, there are 2 perspectives you can choose: *Systems*, or *Scenarios*. The *Systems* view will present each system one tile, and scenarios configured for system as the content of the tile. The *Scenarios* is just the opposite of the *Systems* view, where each scenario is a tile, and the systems are the content.



In the following *Scenarios* view, you can also filter content based on the rating (status). When you filter on status, the item in the tile which have the color-coded status will disappear and the others will be remain.

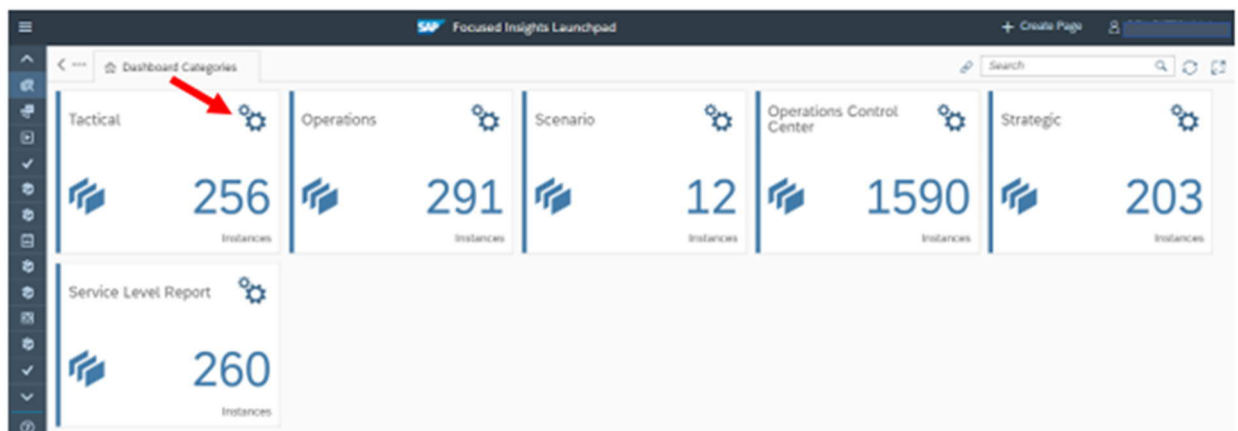
Note that not all the tile will be hidden just the entries within with the unselected status, if all the entries have the same status which is the unselected one the tile will be collapsed.



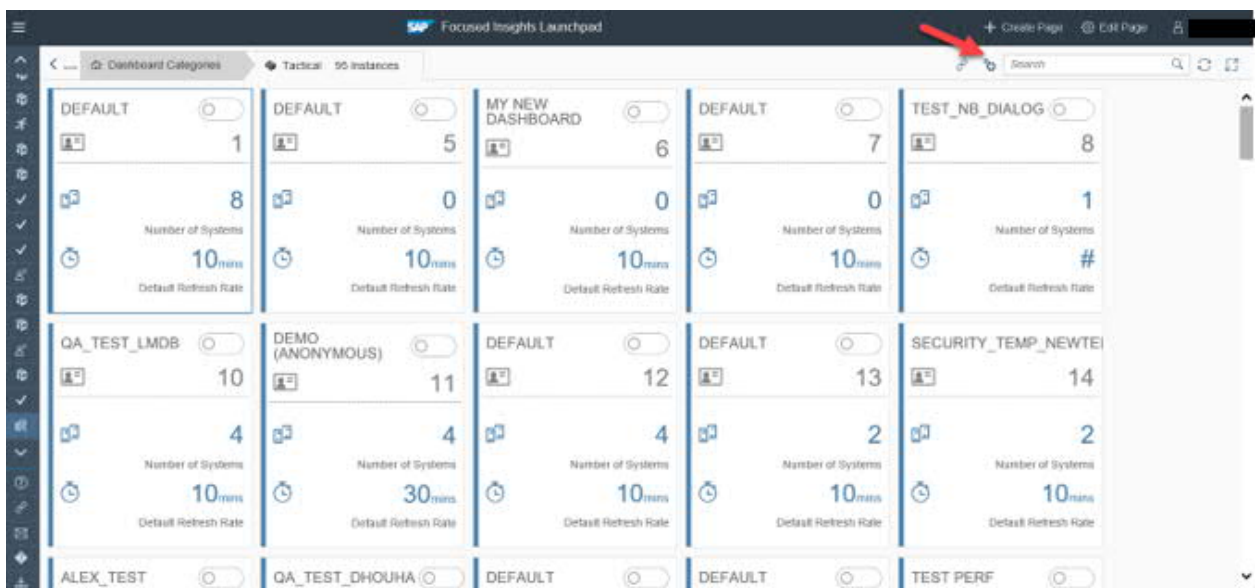
## 2 Configurations

Like always, before the dashboard can be used, one need to configure the dashboard instance. To access the configuration application, use one of the follow ways:

- Direct link:  
[\[protocol\]://\[domain:port\]/sap/bc/webdynpro/stdf/tac\\_webdynpro](#)
- FI Launchpad:



FI Launchpad First View



FI Launchpad Tactical View

composed of systems. Each system can have different scenarios selected for monitoring.

We will cover on configuration of instance, and system in the next sections.

## 2.1 Instance Configuration

One of the features of the dashboard is the possibility to configure multiple instances, each of which is characterized by a *Configuration ID*.

A *Configuration ID* represents a set of systems with specific configurations and thresholds. Different systems with different configurations and active scenarios can be assigned to a *Configuration ID*. This allows multiple applications of the dashboard that can be geared towards different users, managers, or business areas.

Configura...	Description	Last Cha...	Last Cha...	Last Cha...
1	DEMO T...	MACHETTI	26.11.2019	14.43.30
105	DEFAULT	C5292600	16.09.2019	14.52.42
106	TC_REF...	C5292600	04.10.2019	15.13.16
107	DEFAULT	C5292600	10.10.2019	16.39.03
5	DEFAULT	C5285485	20.12.2019	10.30.53
6	MY NEW...	OST_DF...	08.09.2016	10.08.54
7	DEFAULT	C5281441	01.10.2019	11.37.52
8	TEST_N...	C5288407	03.07.2019	16.07.48
108	TEST H...	C5255108	14.10.2019	17.53.38
10	QA_TES...	C5255108	27.12.2017	13.51.51
11	DEMO (...)	C5285718	10.09.2019	12.18.31
12	DEFAULT	C5285485	06.11.2019	11.34.08
13	DEFAULT	C5213832	17.01.2018	11.27.18

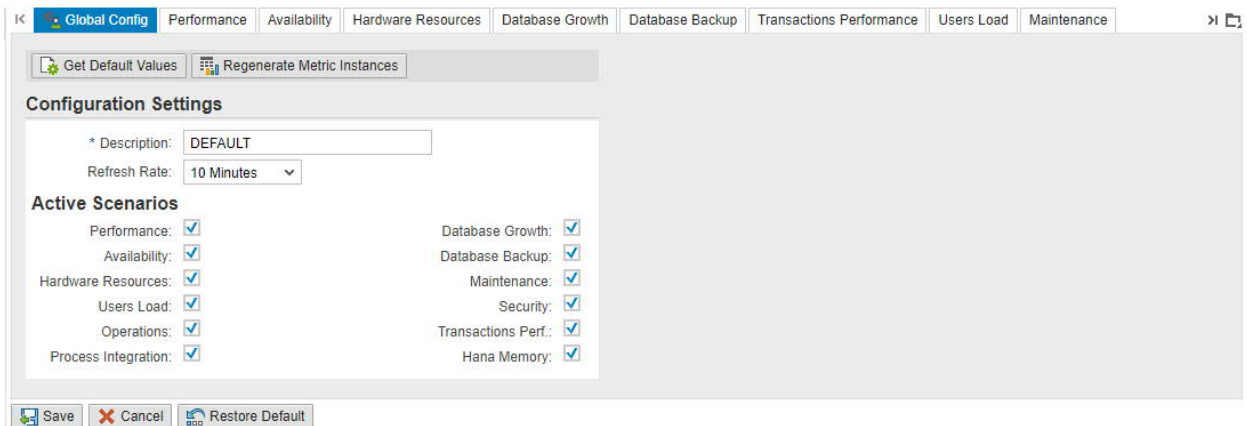
Tactical Dashboard Configuration - Instances Configuration



### 2.1.1 Add an Instance

In the *Instances Configuration* panel, do as follows:

- Select the **Add New Entry** button to add new temporary instance and enter edit mode.

- This will take a while as the metric instances are initiated. On the right-hand side:




- o Enter a description.
- o Choose different refresh rate, if needed.
- o Choose scenarios which shall be used in this instance. What we choose here will affect System Configuration as the System Configuration will by default be inherited from Instance Configuration.
- Now you can either:
  - o Effectively add new instance by select the  **Save** button.
  - o Change your mind, and don't want this instance anymore, select the  **Cancel** button.

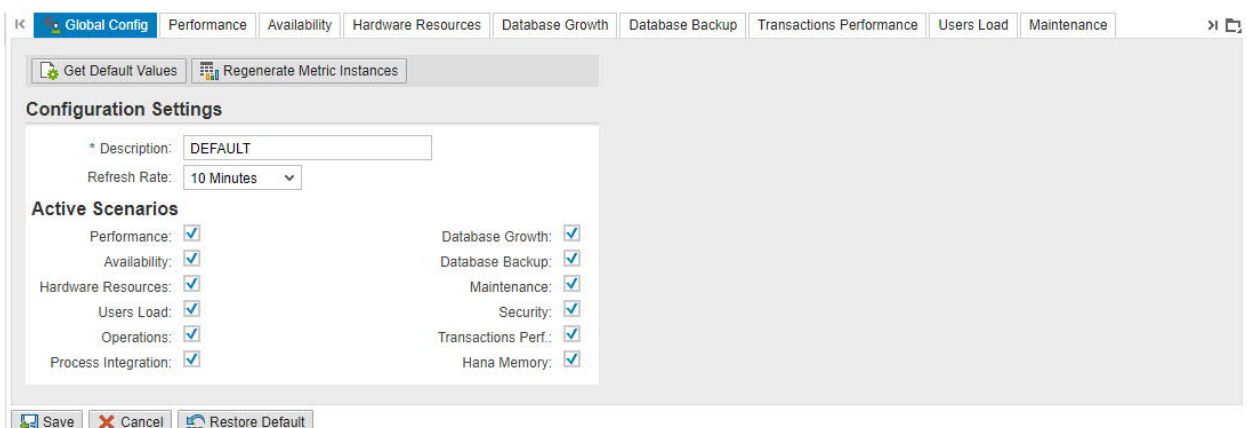
Clicking on [Dashboard](#) will open the instance of the dashboard in your default browser.

Scenarios configuration will be shown in upcoming sections.

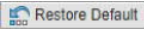
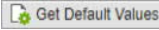



## 2.1.2 Edit an Instance

In the [Instances Configuration](#) panel, do as follow:

- Select an instance in the table.
- Select the  **Edit** button to enter edit mode.
- You can change what you want in the right-hand side tabs:




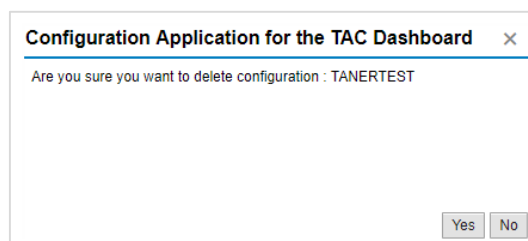
Tactical Dashboard Configuration - Add/Edit Instance

- If you want to reset the setting values of the instance to the application default, use the  button.
- If you want to reset the setting values of the currently selected tab to application default, use the  button.
- Sometime when a note for application released with a change of metric instances, and the dashboard doesn't show expected results, you can select the  button to correct the metric instances.
- Now you can either:
  - Effectively save you changes by select the  button.
  - Change your mind, and don't want these changes anymore, select the  button.

## 2.1.3 Delete an Instance

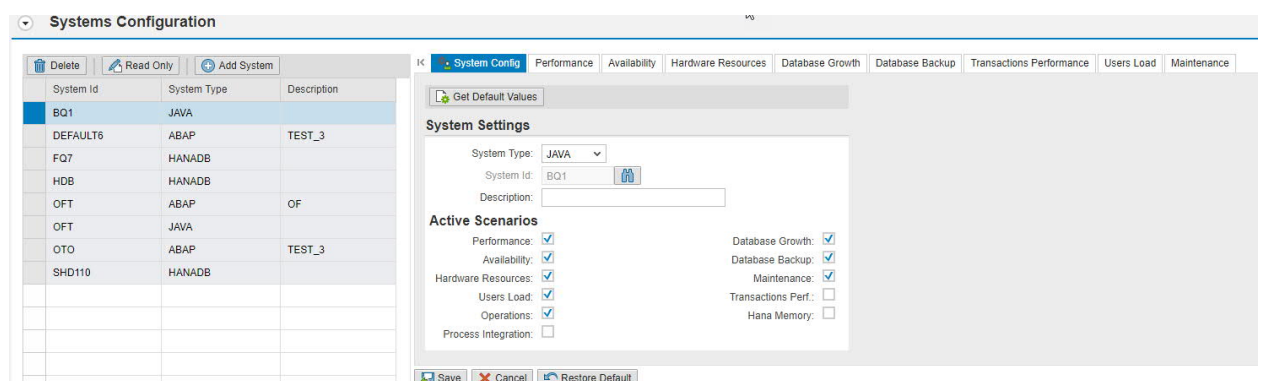
In the *Instances Configuration* panel, do as follows:

- Select an instance in the table.
- Select the  button to delete the instance.
- A popup will show to let you confirm your deletion of instance.



## 2.2 System Configuration

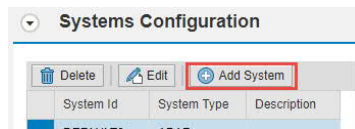
When an instance is ready, you can proceed to add systems to the instance for monitoring. Before doing anything in the next section, make sure you select the desired instance.



## 2.2.1 Add a System

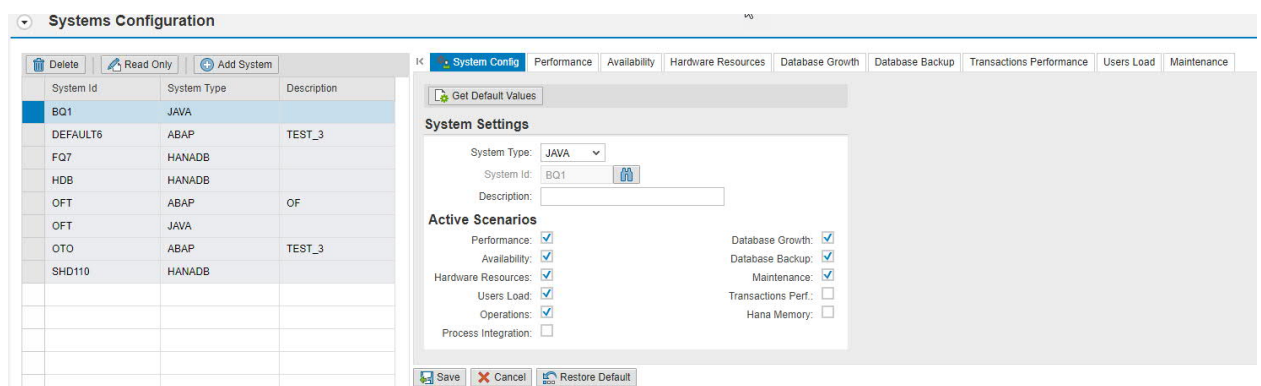
In the *Systems Configuration* panel, do as follow:

- Select the  button to add new temporary system and enter edit mode.





Tactical Dashboard Configuration - Add System Button

- On the right-hand side:




Tactical Dashboard Configuration - Add/Edit System

- Choose the system type: *HANA*, *ABAP*, *JAVA*, *WEB DISPATCHER*
- Search for the system.
- Enter a description.
- Choose scenarios which shall be used in this system.
  - If in the instance configuration, the scenario is unchecked, the scenario is not available to select here.
  - *JAVA* system will not have *Transactions Performance* scenario.
  - *WEB DISPATCHER* systems will have only *HARDWARE RESOURCES* and *AVAILABILITY* scenarios working.
- Now you can either:
  - Effectively add new system by select the  button.
  - Change your mind, and don't want this system anymore, select the  button.

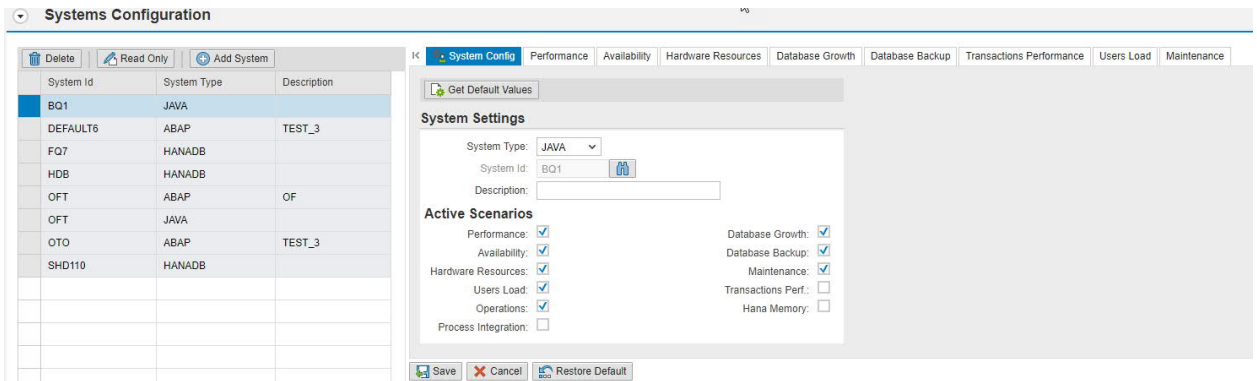
Scenarios configuration will be shown in upcoming sections.

## 2.2.2 Edit a System

In the *Systems Configuration* panel, do as follow:

- Select a system in the table.
- Select the  button to enter edit mode.

- You can change what you want in the right-hand side tabs:

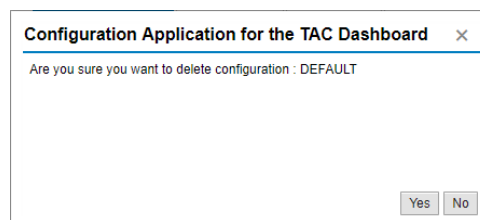


- If you want to reset the setting values of the instance to the instance configuration values, use the button.
- If you want to reset the setting values of the currently selected tab to instance configuration values, use the button.
- Now you can either:
  - Effectively save you changes by select the button.
  - Change your mind, and don't want these changes anymore, select the button.

## 2.2.3 Delete a System

In the *Systems Configuration* panel, do as follow:

- Select a system in the table.
- Select the button to delete the system.
- A popup will show to let you confirm your deletion of system.

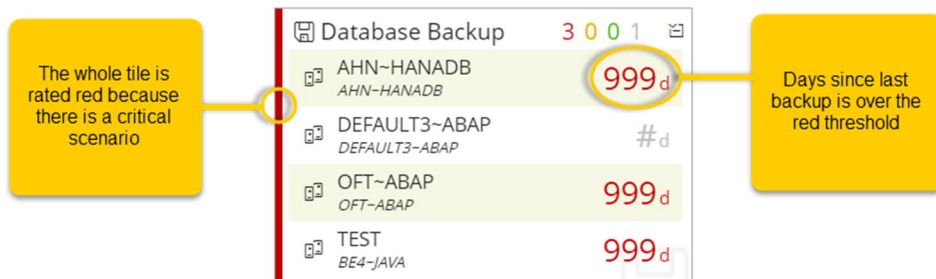


## 3 Scenarios

The current version of the Tactical Dashboard supports 11 Scenarios:

- Availability
- Performance
- Hardware Resources
- Database Growth
- Database Backup
- Users Load
- Transactions Performance
- Maintenance
- Security
- Operations
- Process Integration
- Hana Memory

Each scenario is rated (green, red, or yellow) based on the thresholds and options selected in the configuration. The rating of each scenario (or system) is then propagated, using a worst-case rule, to the overall status of the Tile. If one scenario (or system) is red, the whole tile will be rated as red.



Same principle is valid for the *Category* Tile, if one of the entries is red, the whole category will be rated as red.

The dashboard is refreshed automatically every 10 minutes (default value) but the frequency can be changed from 5 up to 30 minutes. The default refresh period can be configured for each instance.

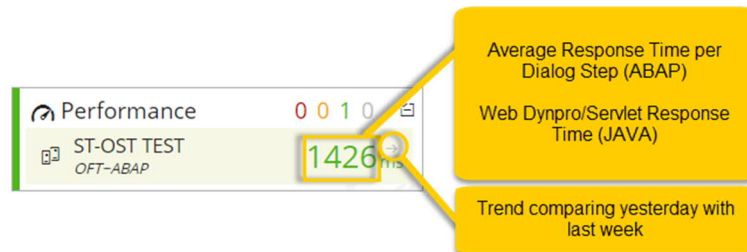
What follows is a detailed description of each scenario including the specific configurations settings needed to adapt the *Tactical Dashboard* to each customer's need.

### 3.1 Performance

This Scenario can be used to report values and trends for *Average Response time per Dialog Step* (ABAP) or *WebDynpro/Servlet Response Time* (Java) to make it easier to assess performance degradations in *Technical Systems*.

### 3.1.1 Tile and Main View

Two different information are shown in the main Tile view, one related to the performances (in milliseconds) and one related to a trend.



Performance Tile and Main View

The trend compares yesterday's average response time with last week's response time. The orientation of the arrow follows these rules:

- → if yesterday's average  $\approx$  Last week average
- ↑ if yesterday's average  $>$  Last week average
- ↓ if yesterday's average  $<$  Last week average

The response time, calculated on today, yesterday's or last hour data according to the configuration, is based on different KPI's depending on the type of technical system, ABAP, or Java.

For ABAP systems, the average response time is calculated simply dividing the total response time by the total number of steps as it is done in transaction *STO3N*. Different *InfoProviders* can be used to calculate the response time per dialog step.

For Java systems, the overall performance is calculated using a combination of two KPIs, *WebDynpro* and *Servlet* response time.

### 3.1.2 Detail View

In the detail view, two different trends are displayed, one from the *Last 30 days* with daily granularity and one for the *Last 8 weeks* with weekly granularity.

Current thresholds are visualized clicking on *Show Thresholds* for both Java and ABAP Performance Detail.



### 3.1.3 Configuration

The configuration allows the selection of 3 different time periods for the calculation of the average in the main tile: Today, Yesterday (default), and Last Hour. The setup for performance includes two thresholds.

#### **i** Note

For JAVA system, there is no selection for source, data period, and data filters. These options are only available on ABAP system. The data period for JAVA system will be yesterday.

For ABAP system, if the source is statistical records, you can put filter on task types and applications to refine the data.

## 3.2 Hardware Resources

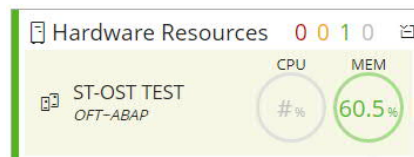
This scenario shows the status of some OS level KPI's, CPU and Memory Utilizations.

All the metrics refer to the *Virtual Hosts* of the SAP System as described in the LMDB.

### Note

In the LMDB *Virtual Hosts* can be either *Physical Hosts* (i.e. bare metal) or *Virtual Servers* (i.e. VMware, LPARs, WPARs, and so on)

### 3.2.1 Tile and Main View



The *Main* tile shows the average CPU and Memory utilization of all the *Physical Hosts* used by the database and the different application servers on which the technical system (ABAP or Java) is installed.

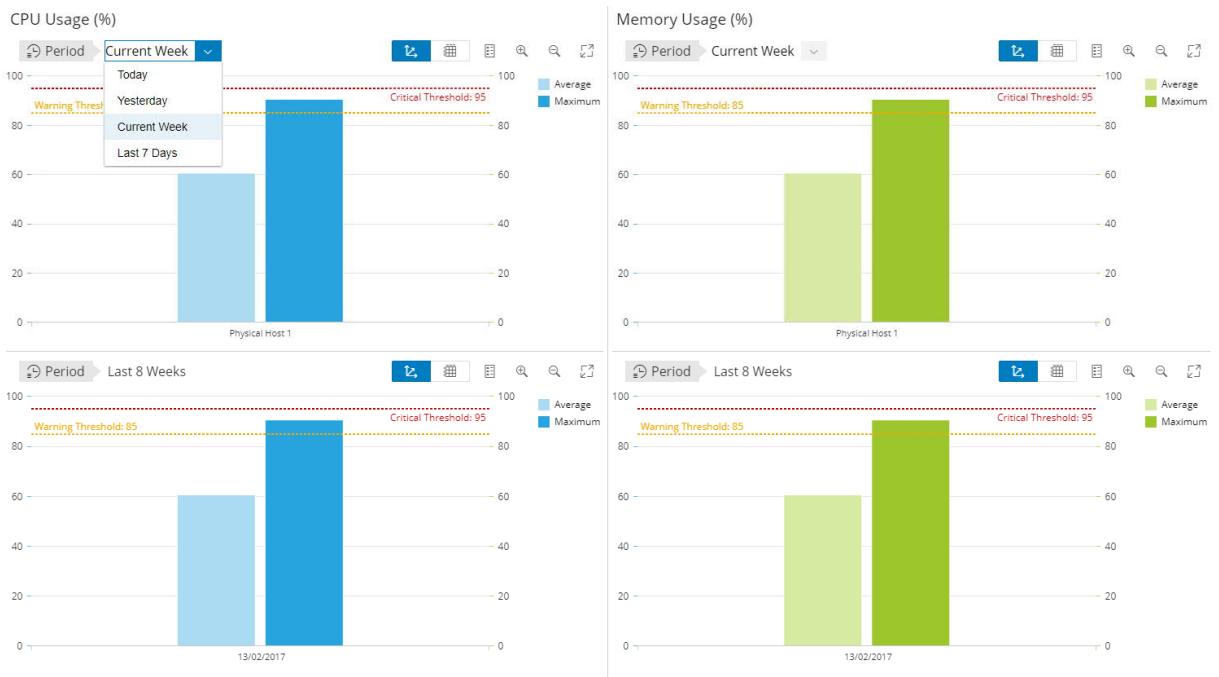
The rating rule of the *Main* tile works as follows:

- If CPU = RED or Memory = RED → HW Resources = Red
- CPU/Memory
  - Green to Yellow Threshold < max (current week) or avg (current week) < Yellow to Red Threshold → Yellow
  - Green to Yellow Threshold < max (last 8 weeks) or avg (last 8 weeks) < Yellow to Red Threshold → Yellow
  - max (current week) or avg (current week) > Yellow to Red Threshold → Red
  - max (last 8 weeks) or avg (last 8 weeks) > Yellow to Red Threshold → Red

### 3.2.2 Detail View

The *Detail* view shows two different sets of information, one related to the CPU and one associated with the Memory.

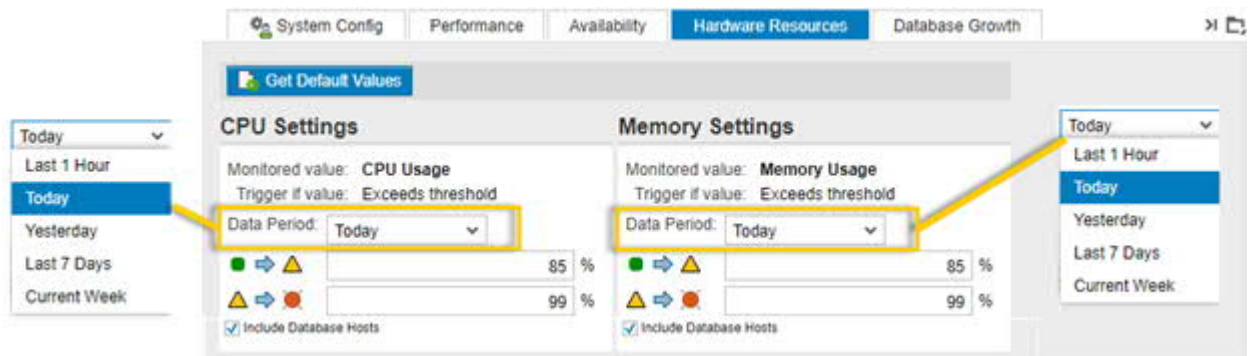
In both KPI's, maximum and average values are shown for each Physical Host in the *Current Week* view. The *Last 8 Weeks* section shows the data aggregated for all the application servers.



### 3.2.3 Configuration

In the configuration application, it is possible to configure two sets of Green to Yellow to Red thresholds, one for the *CPU* and one for the *Memory*. Different data periods (Last 1 Hour, Today, Yesterday, Last 7 Days and Current Week) can also be selected for the calculation of the average in the *Main* tile.

You can also include *Database Hosts* in the calculation by checking *Include Database Hosts*.

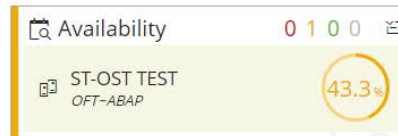


### 3.3 Availability

This scenario shows the status of the *System Availability*; it can be used to evaluate the historical trends in the detailed application.

### 3.3.1 Tile and Main View

The availability is expressed in percentage and calculated on *Last hour*, *Today* and *Yesterday* periods. If the value in the *Main* tile is lower than 100%, the system can be either unavailable or no measurements are collected for this metric (e.g. the agent is offline).



Availability: Tile and Main View

Like any other scenario, availability can be individually configured for several systems.

### 3.3.2 Detail View

The detail view shows several historical trends with the aggregated distribution on the system availability for selected period:



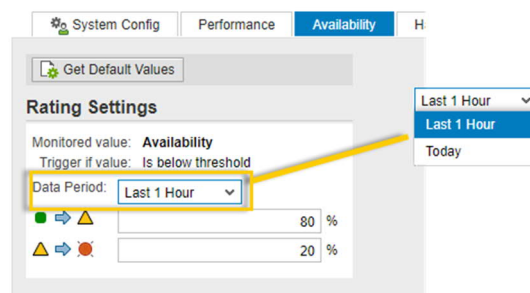
Availability Detail View

- Last 24 hours with hour granularity.
- Last 7 days with daily granularity.
- Last 30 days with daily granularity.
- Last 12 months with monthly granularity.
- Last 8 weeks with weekly granularity.

There are four statuses for a system: *Available*, *Planned Non-available* (for example for a planned downtime), *Unplanned Non-Available* (unexpected downtime), and *No Measurements* (if the Agent is not reporting any data). To be able to discriminate between planned and unplanned non-availability, you need to schedule the related work modes in the *Technical Administration Work Center* (Work Mode Management).

### 3.3.3 Configuration

The configuration of this scenario allows specifying two thresholds, green to yellow and yellow to red:



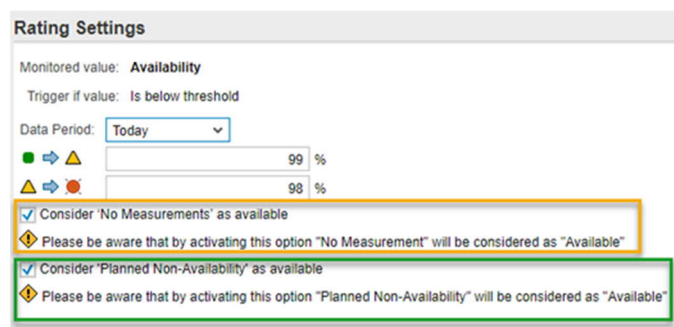
Availability Configuration

In the example above the rating will be green if the availability (Today or Last 1 Hour according to the Data Period selected) will be higher than 80%, yellow if the availability is between 20% and 80% and red if lower than 20%.

In the system configuration, the user can choose to:

- 1- Consider *No Measurement* as available by checking the checkbox mentioned in the below screenshot:
- 2- Consider *Planned Non-Availability* as available by checking the checkbox.

As mentioned in the below screenshot:



In that case, the value displayed in the *Overview* is the sum of the availability and the no measurements or/and planned non-availability.

## 3.4 Database backup

This scenario reports the status of the Database Backup for each system. A custom table is also provided to allow additional reporting capabilities.

### 3.4.1 Tile and Main View

This scenario reports the status of the *Database Backup* for each system. A custom table is also provided to allow additional reporting capabilities.

Database Backup		3000
HANA S4H	HDB~HANADB	5d
HANA SOLUTION MANAGER ABAP	HDB00001~HANADB	5d
HANA SOLUTION MANAGER JAVA	HDB00002~HANADB	5d

### 3.4.2 Detail View

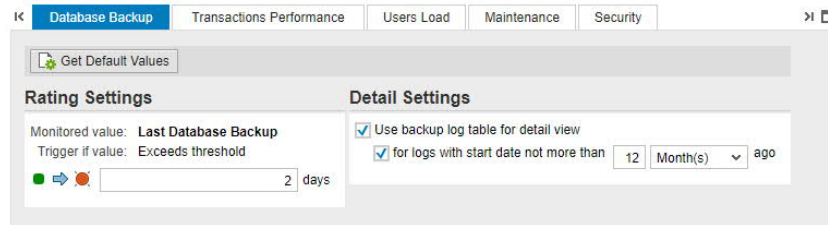
When enabled in the configuration (see the next section), the detail view displays only the content of the table */STDF/TAC\_BAKLOG*. The table can be filled periodically with a strategy of your choice.

These are the *Fields* displayed in the dashboard:

Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Descrip
SID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DIAGLS_SYSTEM_N...	CHAR	8	0	The System Name.
CATEGORY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	/STDF/TAC_DE_CH...	CHAR	128	0	128 characters lower case allowed
START_DATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	/STDF/TAC_DE_DA...	DATS	8	0	Date
START_TIME	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	/STDF/TAC_DE_TI...	TIMS	6	0	Time
END_DATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	/STDF/TAC_DE_DA...	DATS	8	0	Date
END_TIME	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	/STDF/TAC_DE_TI...	TIMS	6	0	Time
APPLICATION	<input type="checkbox"/>	<input type="checkbox"/>	/STDF/TAC_DE_CH...	CHAR	128	0	128 characters lower case allowed
TYPE	<input type="checkbox"/>	<input type="checkbox"/>	/STDF/TAC_DE_CH...	CHAR	128	0	128 characters lower case allowed
BACKUP_RESULT	<input type="checkbox"/>	<input type="checkbox"/>	/STDF/TAC_DE_CH...	CHAR	128	0	128 characters lower case allowed

### 3.4.3 Configuration

There is only one threshold for the DB Backup scenario.



The threshold is of type *Green* to *Red* so, when the number of days since last successful backup exceeds the configured integer, the scenario will be rated red.

It is possible to activate a flag to enable the *Detail* view. In this case the content of the table `/STDF/TAC_BAKLOG` is displayed filtering the specific system.

Backup Log							
Application	Category	Type	Start Date	Start Time	End Date	End Time	Result
No data							

How and when to fill the table is customer's responsibility. A possible approach is to execute a periodic job that parses the content of a log file produced by the backup tool and then writes the new entries in the table. The dashboard will always display the records related to that specific SID.

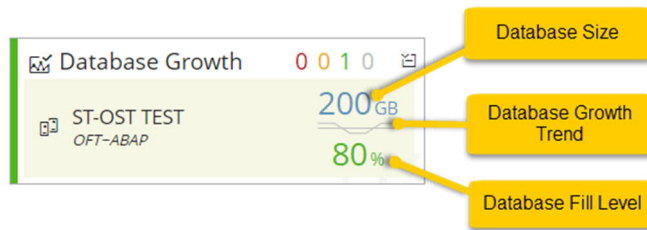
## 3.5 Database Growth

The *DB Growth Scenario* allows monitoring several KPIs related to the growth of the Database over an extended period (up to one year). It provides information about the current size of the DB and alerts the user whenever the fill level is close to 100% or if there is an anomaly in the growth of the database.

The following Databases are supported:

- DB2
- Oracle
- MaxDB
- HANA DB

### 3.5.1 Tile and Main View



Three information are displayed in the main tile: *DB Size*, *DB Fill level* and *DB Growth trend*. The first two are based on yesterday's values while the trend depends on the configuration (8 weeks or 12 Months).

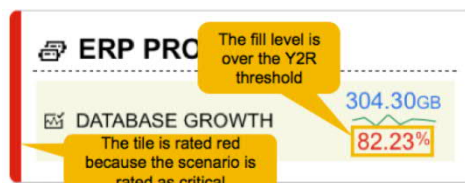
- DB Size refers to the size of the Database in the file system (i.e. the sum of the size of all data files or Occupied plus Free Memory in the Database).
- The DB Fill level describes the percentage of space which is consumed within the DB (Occupied Memory / (Occupied + Free Memory)).
- The trend shows the DB Growth in the last week or month (depending on the configuration).

The rating of the scenario is based on two thresholds defined on the *DB fill level* (DBFL) and on the *DB growth comparison* (DBGC). If one of the two is red, then the *DB Growth Scenario* is rated as red.

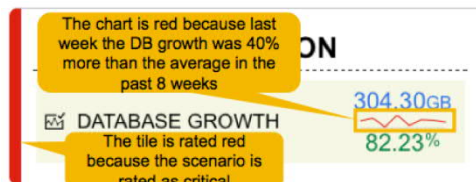
**i** Note

The 2 images below are for example only. They do not reflect the current style of the tile. However, the organization of the content is still correct.

The DB Fill Level has a conventional green to yellow to red threshold.



The color of the trend chart in the System Tile is based on the evaluation of a threshold defined for the comparison of the *DB Growth* (DBG) between *Last Week* (or *Last Month*) and *Last 8 Weeks* (or *Last 12 Months*).



If, for example, the *DB Growth Trend Y2R* threshold is set to 50%, then the chart will be red if last week growth is 50% higher than the average in the past 8 weeks.

## 3.5.2 Detail View

The *Detail* view provides two charts, *DB Growth* and *DB Size*. The database size shows the amount of occupied and free memory.

Database Growth is the difference for *Occupied memory* between two different time periods. E.g. if this month the occupied memory in the Database is 300G and last month was 200G, then the Database Growth is 100G.



## 3.5.3 Configuration

As explained before, two thresholds are configurable to assign a rating to the Scenario, one on the *DB Fill Level* and one on the growth comparison.

The screenshot shows the 'Database Growth' configuration page. It has tabs for 'System Config', 'Availability', 'Hardware Resources', 'Database Growth', and 'Database Backup'. The 'Database Growth' tab is active. There are two main sections: 'Database Capacity Settings' and 'Trend Settings'. Both sections have a 'Monitored value' and a 'Trigger if value: Exceeds threshold'.

Threshold	Value
Green to Yellow	90 %
Yellow to Red	95 %

Threshold	Value
Green to Yellow	30 %
Yellow to Red	50 %

Additional settings include 'Data Period: 8 Week(s)'.

The first threshold is used to rate the *DB Fill Level* percentage in the *Main* tile.

The second one is used to evaluate the color of the *DB Growth* trend in the *Main* Tile.

## 3.6 Users Load

This scenario can be used to evaluate, in every ABAP system, if the average number of connected users per hour is increasing over time or if there are peaks that need to be evaluated.

For Java systems, http sessions are used to display similar information.

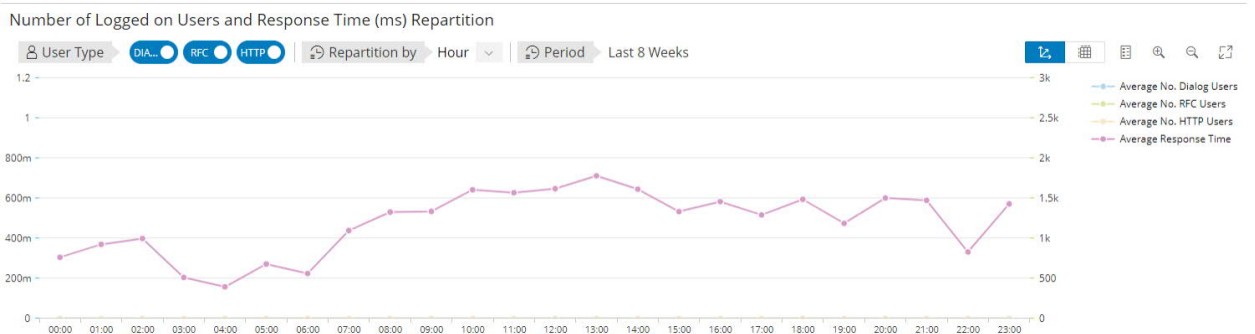
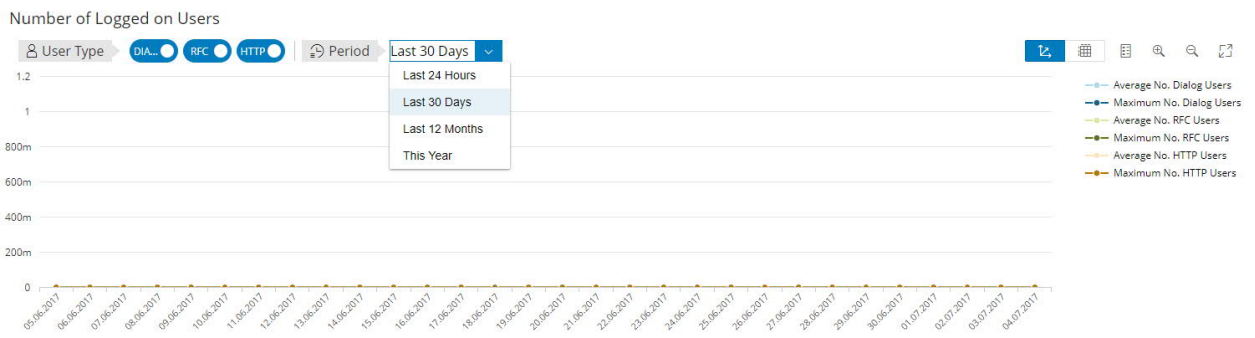
### 3.6.1 Tile and Main View

The main tile shows two information: a number representing the average number of connected users per hour (today, yesterday, or last 7 days depending on the configuration) and a trend. The trend compares last week (or last month depending on the configuration) with the last 8 weeks.



### 3.6.2 Detail View

In the detail application two different areas are displayed.



The trend on top shows the average (and maximum) number of connected users in different timeframes: last 24 hours with hourly granularity, last 30 days with daily granularity, and last 12 month, or this year with monthly granularity.

The lower graph shows the distribution of the hourly-connected users during the 24 hours or the days of the week. The distribution is calculated considering the last 2 months. This allows to answer questions like: What is the hour of the day in which more users are connected? Which day of the week has been busier in the last two months?

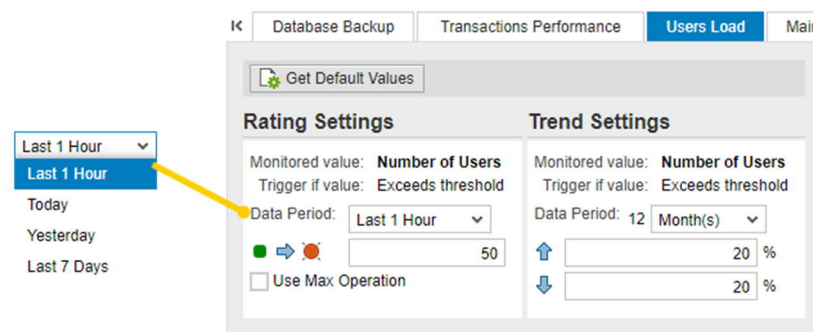
Additionally, another trend is showed in the same graph, the *Response Time per dialog Step* (for ABAP) or the *Servlet/WebDynpro Response time* (for Java). This allows correlating the number of connected users (or HTTP sessions) to possible performance issue.

### 3.6.3 Configuration

In the *Users Load* configuration, it is possible to define a threshold on the maximum number of connected users. This is useful to be alerted, for example, if the maximum number of connected users reaches the limit imposed by the license. Data from today (default), yesterday or last 7 days can be considered for this threshold.

When the threshold is exceeded, the number in the main tile becomes red.

The trend thresholds (in %) can be used to modify the buffer used to control the sensibility of the trend arrow. In the example below, if the average last week is 20 more than the average in the last two months, the orientation of the arrow is up.



There are cases where you want to see the maximum number of users log on to system, instead of just average, for example, the data period last 1 hour. You can select *Use Max Operation* for this purpose.

## 3.7 Maintenance

The maintenance scenario can be used to keep under control the status of the systems from the software level point of view. For each technical system, it shows the current software/patch level of the installed product, software components, kernel, operating system, and database as well as the latest available version, age, or end of maintenance. The status of the main tile can be used to, for example, to evaluate if the end of maintenance for the product is too close.

The main data source for this scenario is the *Early Watch*. It follows that the configured system must be included in a solution and that the latest *Early Watch* alert session has been calculated correctly.

### 3.7.1 Tile and Main View

The main tile shows the status of the product, OS (Patch level and Kernel) and database. If one of the thresholds configured for the different areas is exceeded, the status is propagated to the [Main Tile](#).



### 3.7.2 Detail View

The detailed application offers an overview of all the relevant areas: [Product](#), [Software Components](#), [Database](#), [OS](#), and [Kernel](#).

**Product**

Details

Product Name	Version	End of Maintenance
SAP SOLUTION MANAGER	7.2	31.12.2025

Components

Name	Current SP	Latest SP

**Database**

Database Name	Version	End of Support
SAP Adaptive Server Enterprise 16.0 for SAP Business Suite Products	Version 16.0	31.12.2025

OS and Kernel

OS

Host	OS Patch Level	End of Support
ldcioft	SuSE Linux Enterprise Server 11 on x86_64 SLES11	31.03.2019

Kernel

Instance	Patch Level	Age

The [Components](#) area shows the current SP level for each software component installed on the system and the latest available SP level in the products catalog. A specific threshold can be setup for the main software component of the relevant stack (sap\_basis for abap and J2EE for Java) to calculate the rating based on the difference between the latest available and the current SP.

### 3.7.3 Configuration

The following interface is used to configure the maintenance scenario:

It is possible to define several thresholds for limiting the product remaining maintenance days, component's version gap or OS remaining support days.

The user can ignore checking if the data base's end of maintenance date has been exceeded or not. In this case, he should in the reference box enter a reference explaining the reason.

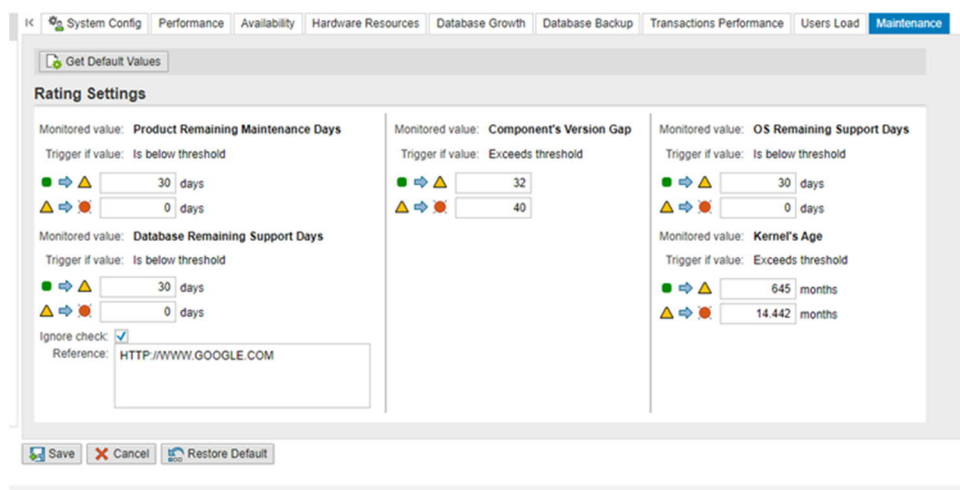
## 3.8 Security

For *Security Scenario* and related troubleshooting refer to the document *Security Scenario CV Configuration for Tactical Dashboard ST-OST.pdf* in the following wiki page:

<https://wiki.scn.sap.com/wiki/display/SM/Security+scenario%3A+Security+Notes+Validation>

## 3.9 Transactions Performance


Response time per dialog step and total number of steps are the key indicator for transactions performance evaluation in ABAP Systems. Users want to verify for each system if a selected subset of Transactions are performing under the expected SLAs or if their trend is worsening.



The *Transaction Performance Scenario* can be used to report the status of critical transactions for every ABAP System configured in the *Tactical Dashboard*.

### 3.9.1 Tile and Main View

The *Main* tile displays the number of transactions exceeding the performance threshold (based on Average Response time per dialog step).



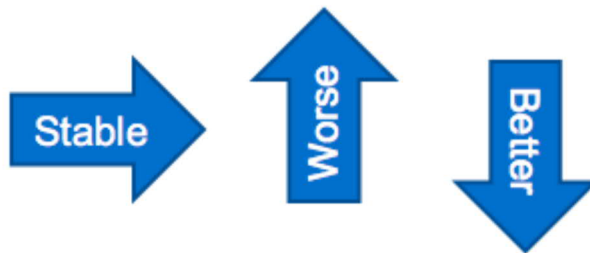
Transaction Performance	0	0	1	0	📄
ST-OST TEST OFT-ABAP	1	0	0	→	

Users can configure a different threshold for each transaction. Thus, each transaction will be rated and placed in a Green, Yellow or Red area set. The rating is performed using Last Hour, Yesterday or Last 7 Days data.

The blue arrow shows the trend of the worst transaction among the ones configured for the system.

A trend is calculated for each transaction comparing the performances of yesterday (last hour or last 7 days depending on the configuration) with the last 8 weeks (or 12 months according to the configuration).

If the difference between yesterday (last hour or last 7 days) and last 8 weeks (12 months) exceeds a specific, configurable threshold (in %) then the orientation of the arrow will change accordingly.

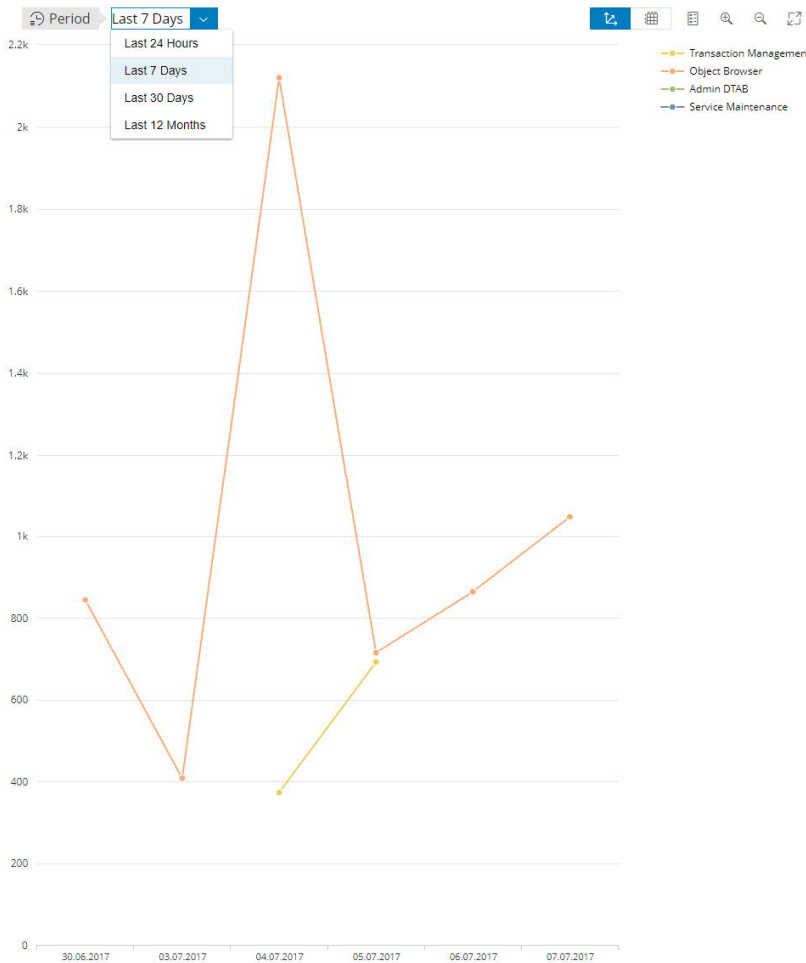


### 3.9.2 Detail View

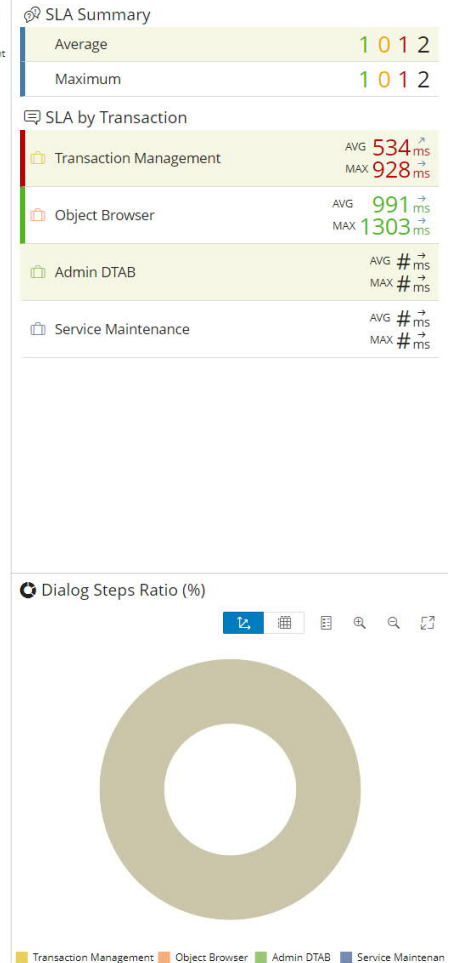
The detail view will provide additional information for each transaction:

- Last 24h/Last 7 days/Last 30 Days/Last 12 Months trend graph for each transaction
- Pie chart representing within each sector different transactions steps compared with the all the other transactions in the system
- List of transactions out of SLAs (Green/ Yellow/ Red/ No Data)
- List of all the transactions trends and specific SLAs (Maximum and Average response time plus trend)

### Transaction's Average Response Time (ms)

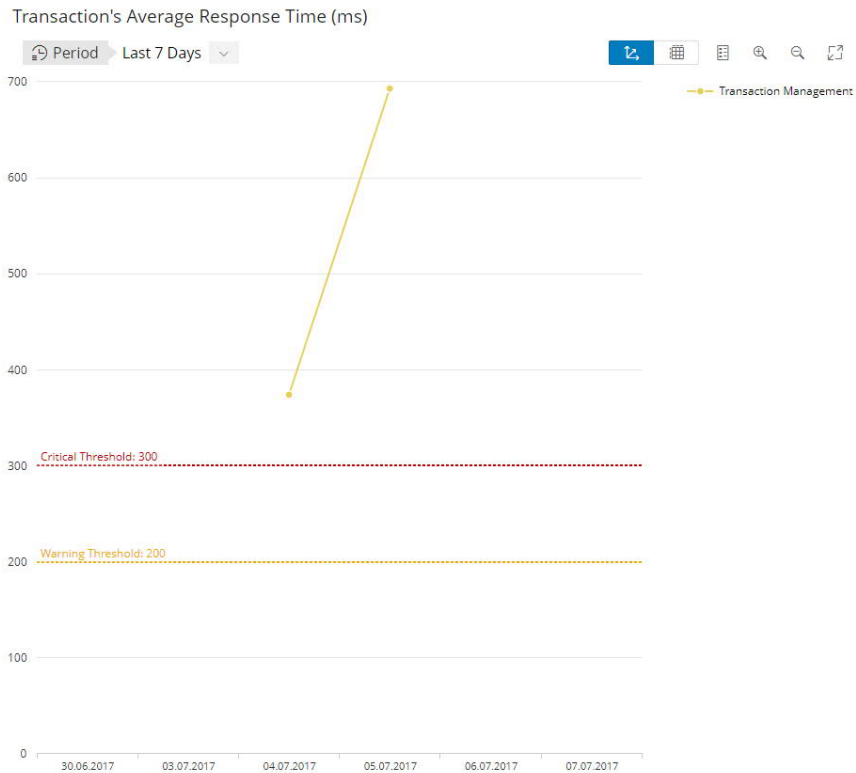


### Response Time SLA and Trends



The data in the pie chart, SLA Summary and Transaction Trends is calculated based on the selected period in the trend graph.

The analysis can be focused on a specific transaction by clicking on the name in the trend graph legend like in image below. Click the legend again to go back to full view.



### 3.9.3 Configuration

The configuration of the transaction's performance scenario is quite simple. It is sufficient to select the proper scenario and system in edit mode.

And then add the necessary transaction following the procedure described below.

**1. Edit Mode**

**2. Specify a transaction name (no search functionality provided)**

**3. Provide a description (visible in the detail app if the flag "Use transaction description as a name" is activated)**

**4. Adjust the thresholds**

**5. Save**

**6. The configured transaction will be displayed in the list**

**7. Don't forget to hit "Save" when all the transactions have been added to the list**

## 3.10 PI Monitoring

The PI Scenario in the *Tactical Dashboard* allows the monitoring of PI messages (errors, scheduled and successful) on a PI domain.

- The error status groups messages of a particular PI domain which are in any error status
- The scheduled status considers messages of a particular PI domain in any non-final status, including currently scheduled, waiting, pending, or currently processed
  - e.g. if the adapter engine is consuming all the threads, the messages are hanging causing a backlog situation

### 3.10.1 Tile and Main View

The *Main* tile shows the successful messages in green and the number of scheduled and error messages in yellow and red. The trend compares the number of errors between yesterday and the average in the past 7 days.

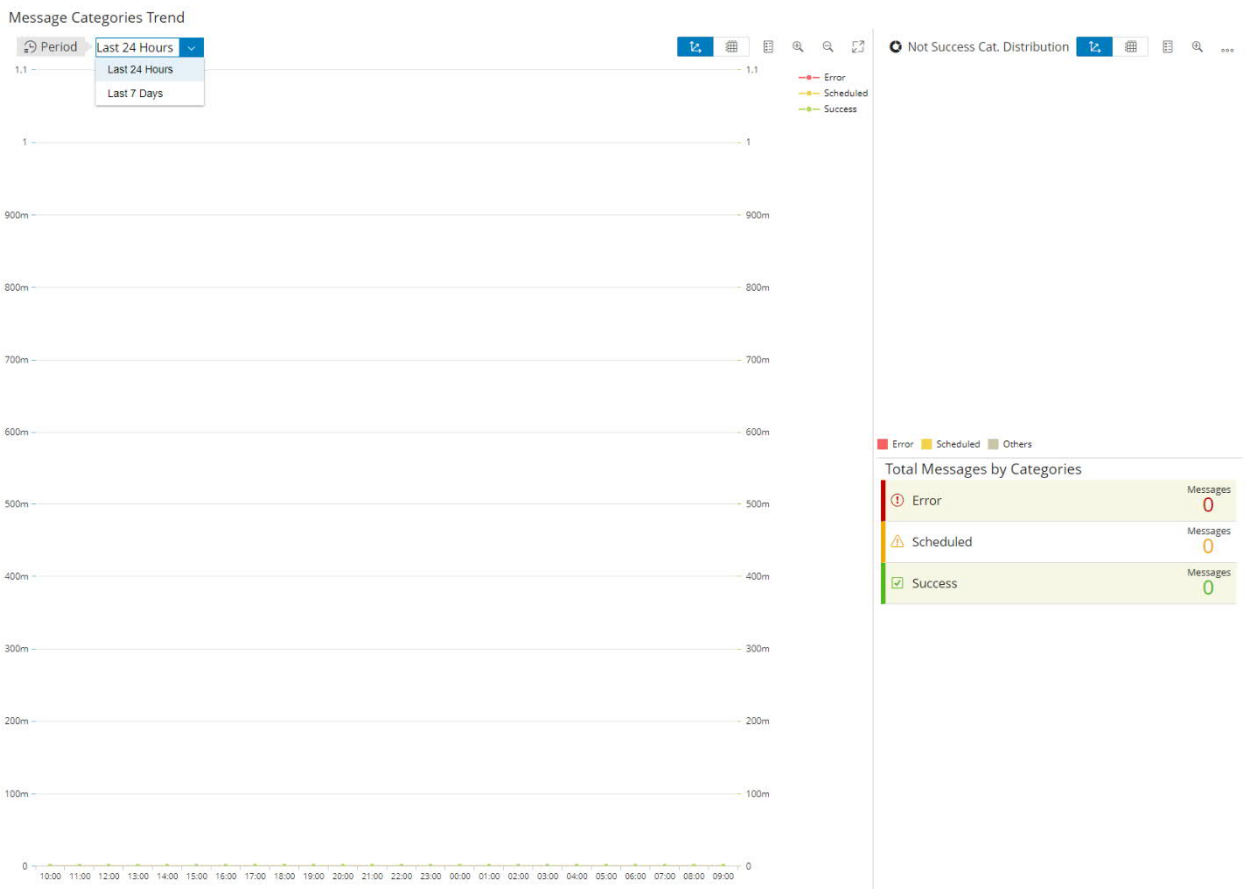


### 3.10.2 Detail View

Like any other scenario in the *Tactical Dashboard*, the user can access a more detailed view by clicking on the system entry in the *Main* tile.

The *Detailed* view will provide additional information:

- Last 24h\*/Last 7 days trend graph for messages in error, in status scheduled, and total number of successful messages.
- Trend summary for the different categories of message.
- Pie chart showing the share of message in error and scheduled.



### 3.10.3 Configuration

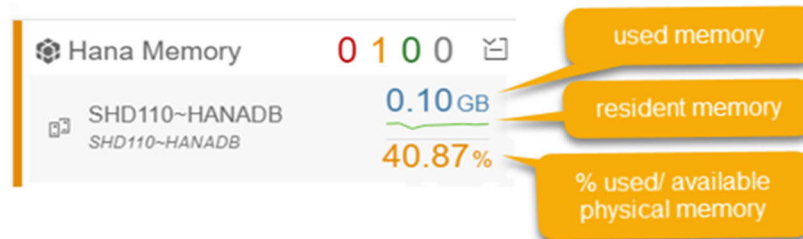
The configuration of the PI Monitor scenario relies on the setup of the standard Solution Manager PI Monitoring application in the *Integration Monitoring* area of *Technical Monitoring* (for the details on the configuration activities refer to the official TechMon Wiki, for Solution Manager 7.1

<https://wiki.scn.sap.com/wiki/display/TechOps/Central+PI+Monitoring+with+SAP+Solution+Manager+7.1>, and for Solution Manager 7.2 <https://wiki.scn.sap.com/wiki/display/TechOps/Process+Integration+Monitoring>).

## 3.11 Hana Memory

The Hana Memory allows monitoring several KPIs related to the memory of Hana database. It provides information about the *Used*, the *Resident* and the *Available Physical* memory of the database Hana.

### 3.11.1 Tile and Main View



Three information are displayed in the main tile: *Used* memory, *Available Physical* memory, and *Resident* memory trend. The first two are based on yesterday's values while the trend is based on the last 8 weeks values.

- Used memory is the total amount of memory currently in use by SAP HANA.
- Available physical memory is the DRAM memory installed on the host.
- The resident memory is the physical memory in operational use by a process.

The rating of the scenario is based on two thresholds defined on the percentage of the % (used/Available physical memory) and on the resident memory comparison. If one of the two is red, then the *Hana Memory Scenario* is rated as red.

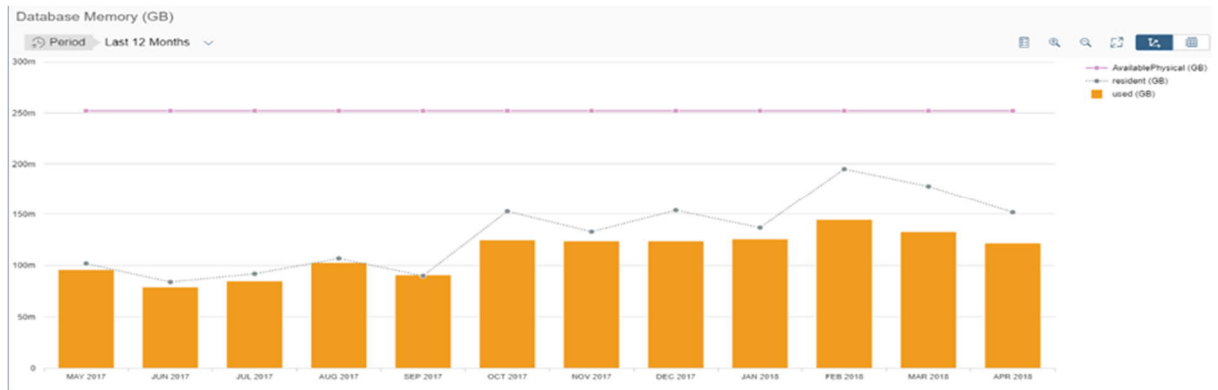
The % (Used/ Available physical memory) has a conventional green to yellow to red threshold.

The color of the trend chart in the system tile is based on the evaluation of a threshold defined for the comparison of the resident memory between last week and last 8 weeks.

### 3.11.2 Detail View

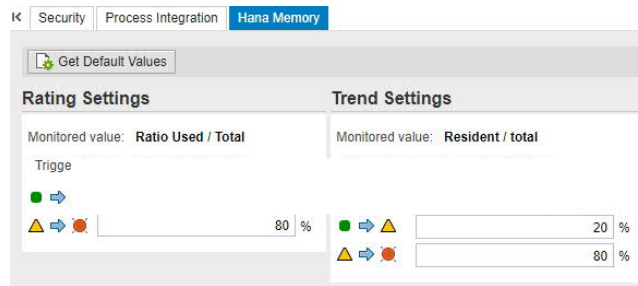
The detail view provides one chart, DB Memory. The *Database Memory* shows the available physical memory, the *Resident* memory, and the *Used* memory for the selected periods:

- Today with hour granularity.
- Yesterday with hour granularity.
- Last week with daily granularity
- This week with daily granularity.
- Last month with daily granularity.
- This month with daily granularity.
- Last 3 months with daily granularity.
- Last 12 months with monthly granularity.



### 3.11.3 Configuration

As explained before, two thresholds are configurable to assign a rating to the scenario, one on the *Used* memory and one on the *Resident* memory comparison.



The first threshold is used to rate the *Used* memory percentage in the main tile.

The second one is used to evaluate the color of the *Resident* memory trend in the main tile.

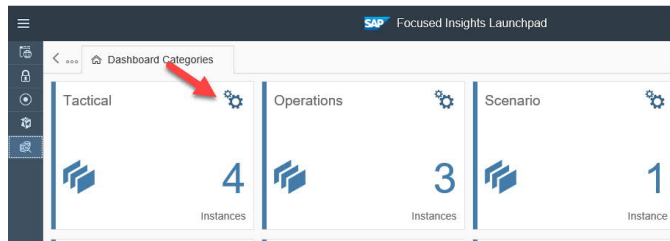
## 4 Dashboard

Once the configuration has been done, you can access the dashboard to see what you have configured. To access the dashboard based on the view, please follow section 4.1.

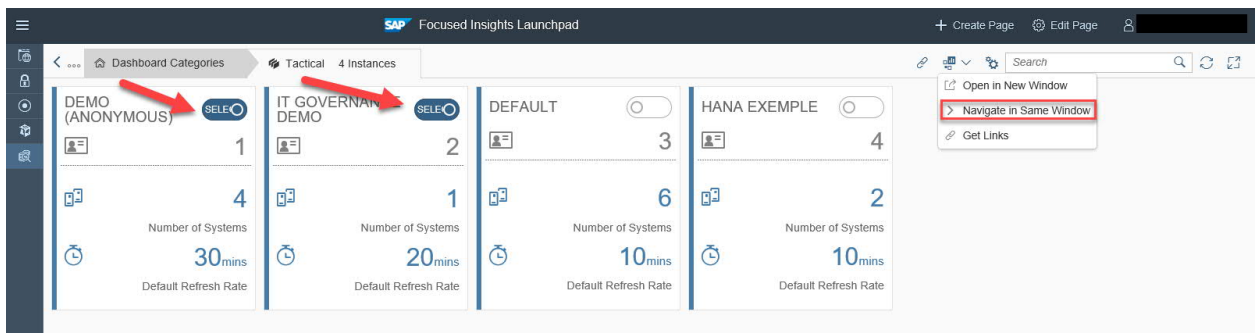
### 4.1 Access Dashboard

You can access it by using *Focused Insights Launchpad* as follow:

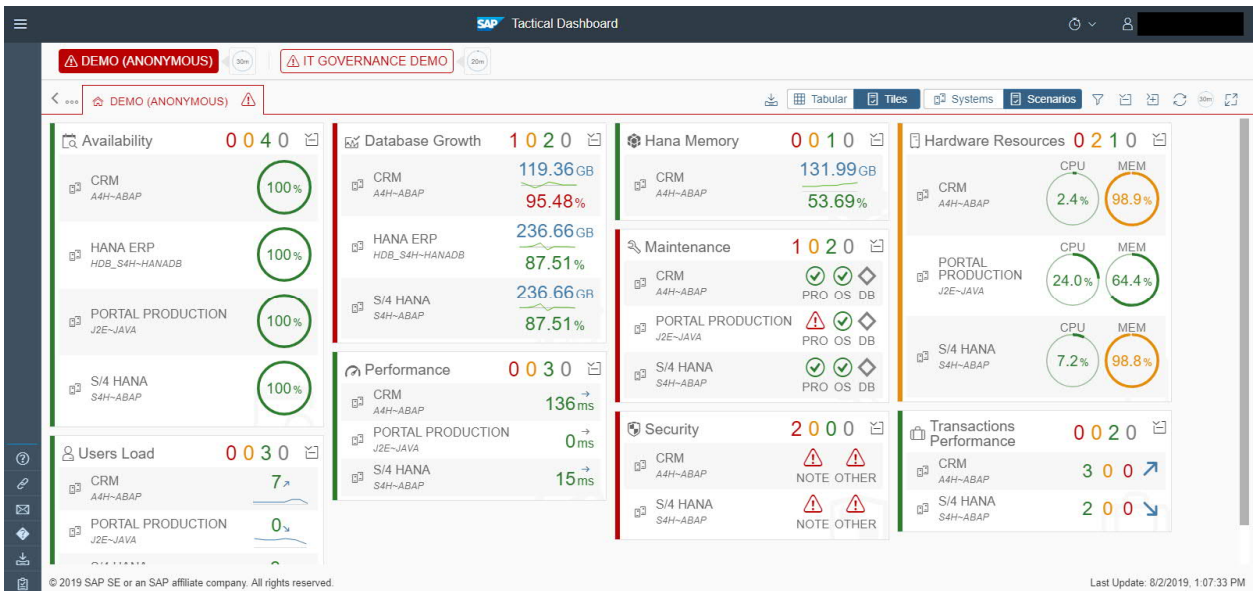
- Select the *Tactical* tile.



- Select the instance you want to go to and select *Go to Dashboard*.



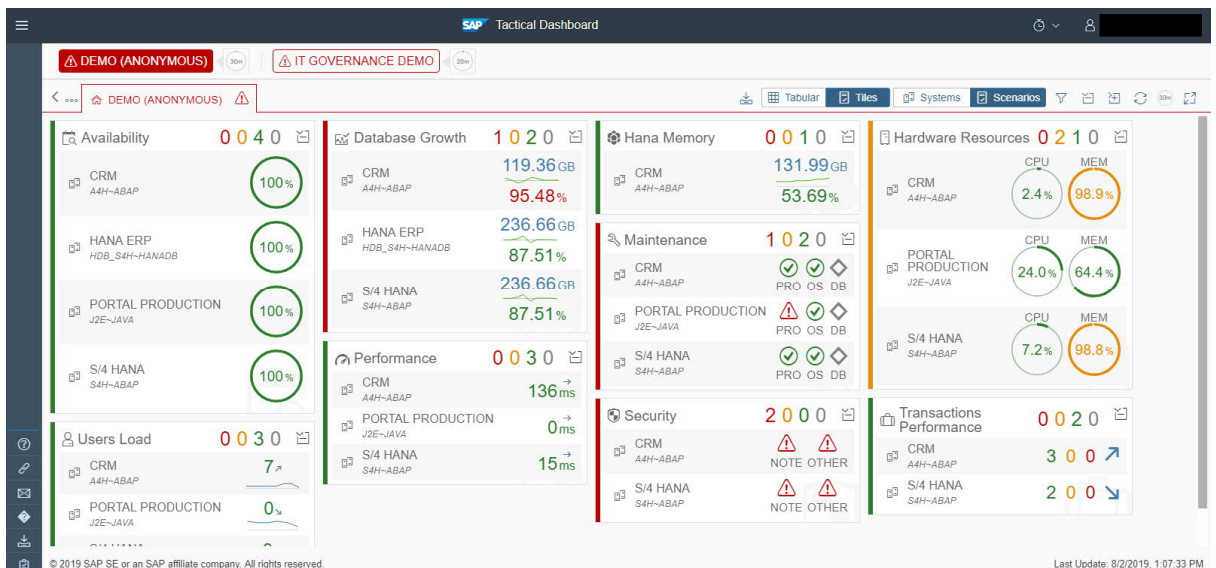
Once inside the dashboard with selected instances, you will see:



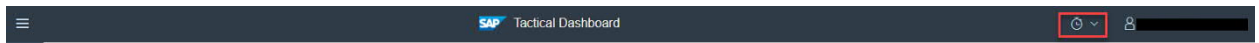
You can switch between selected instances by clicking the title of the instance. The default view when you access the dashboard will be *Tiles* view, with *Scenarios* perspective. The number of scenarios showing up will be based on the configuration of the instance as shown previously.

## 4.2 Dashboard Layout

When you enter the application, the default view will be based on tiles view and scenarios perspective as shown in the below screenshot.



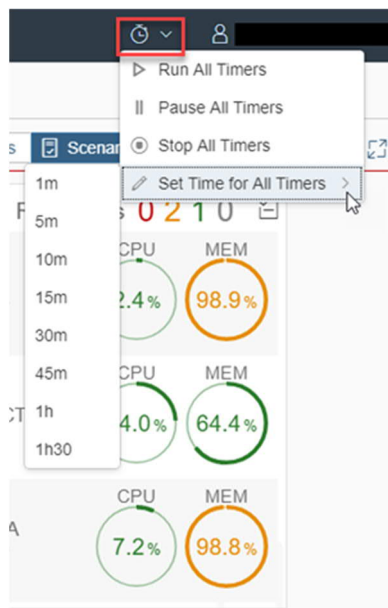
## 4.2.1 Header



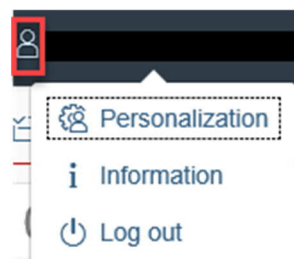
Dashboard Header (2 instances are displayed)

The header is composed of (from left to right):

- Side pane toggle button.
- SAP Logo.
- Dashboard Model Name: Tactical Dashboard.
- Instances' timer settings (in case multiple instances are used), which manipulates all instances' time.



- *User Settings* button with username as label. When chosen, it pops up a menu:

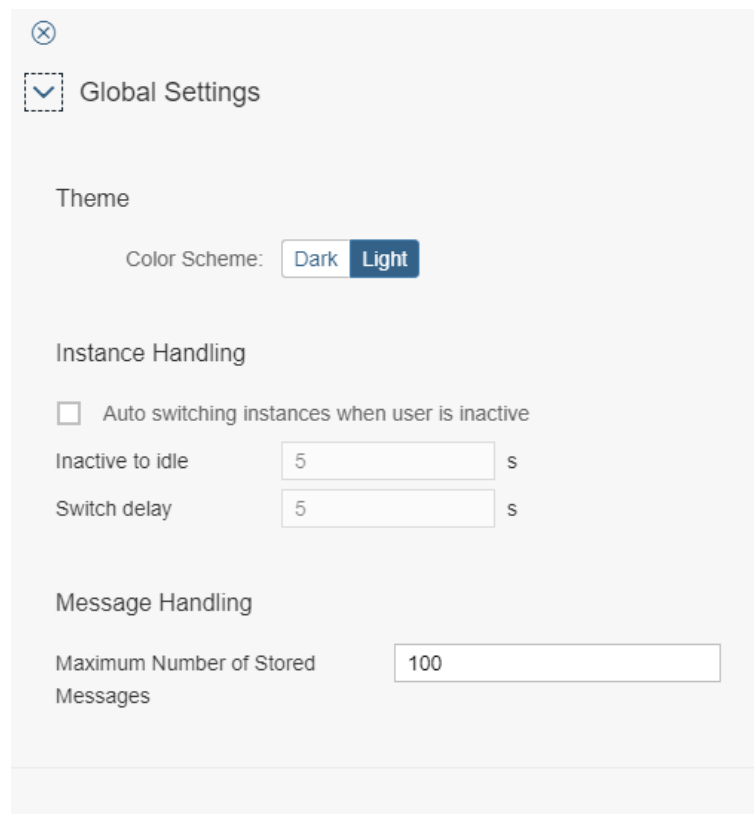


User's Menu

- Choose *Information* to open *Basic Information Dialog*.



- o Choose *Personalization* to open the Personalization panel, in this panel figure the *Global Settings* section:



In this dialog the user can select these options:

- Color schema theme *Light* or *Dark*

Below a screenshot of the dashboard with the dark mode.



- The maximum number of messages to store in the message dialog.
- The auto switching of instances:
  - Set the inactive time for the dashboard to determine user is idle to activate the function.
  - Set waiting time between switch of instances

**i** Note

Here is the parameters list that can be added to the application URL to perform the activities described below:

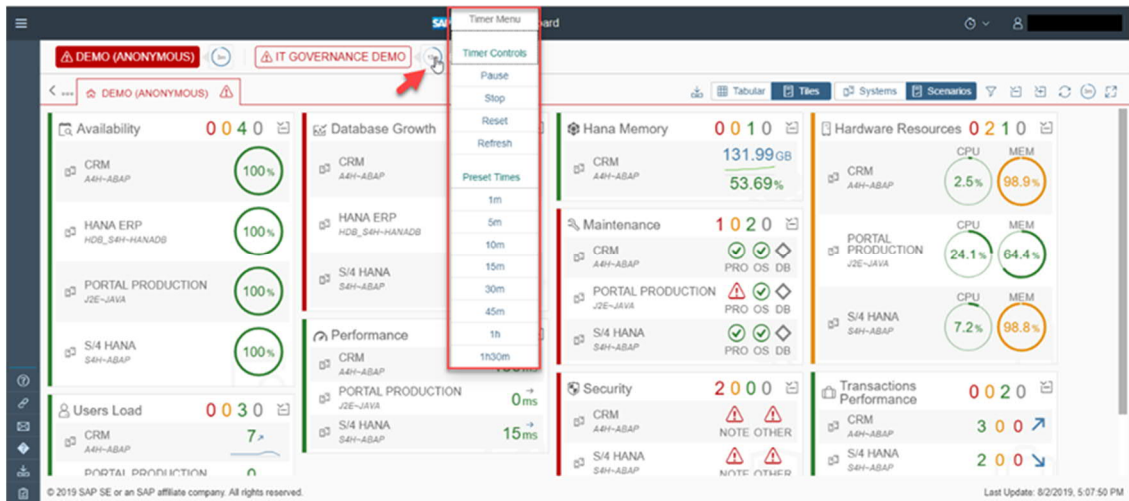
- **ColorScheme=Dark** to select dark mode (ColorScheme=Light is the default mode)
- **fullScreen=X** to display dashboard in fullscreen
- **refreshTimer=X** where X is the refresh time to set in minutes (By default, the refresh time is the selected one in the configuration application)
- **autoSwitchOnIdle=true/X** working with carousel feature, it enables the auto-switching between the displayed instances (autoSwitchOnIdle=false by default)
- **statuses=green,red,gre,yellow** to filter on the item status. If statuses=red,green the items with red and green ratings will remain, the others will disappear
- **view=Tabular or Tiles** to use tabular or tiles
- **perspective=Systems or Scenarios** to show systems or scenarios perspective

## 4.2.2 Instances Selection Header

This header allows you to switch between instances manually.

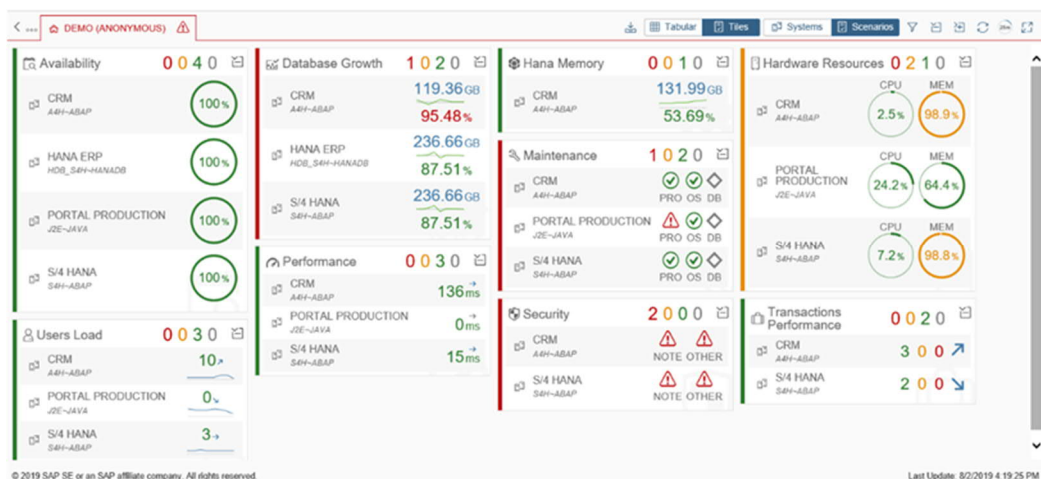


Each instance will have its own refresh timer which is a circle icon containing the time set in minutes. You can click on the refresh icon to manually manage the timer refresh instance.







### 4.2.3 The Content Area

The content area is in the middle-center of the dashboard. This is where you see the content of the selected instance.



This area is covered by the navigator which contains:

- Navigating items: which show where you are, and where you are from Job Management → OTO System
- Message inbox button
- Full screen button
- The type of displayed view button Tabular or Tiles Tabular Tiles
- The perspective button Systems or scenarios Systems Scenarios
- The statuses filters button

- Refresh button 
- Expand all tiles button 
- Collapse all Tiles button 
- Refresh Timer 

## 4.3 Content Navigation

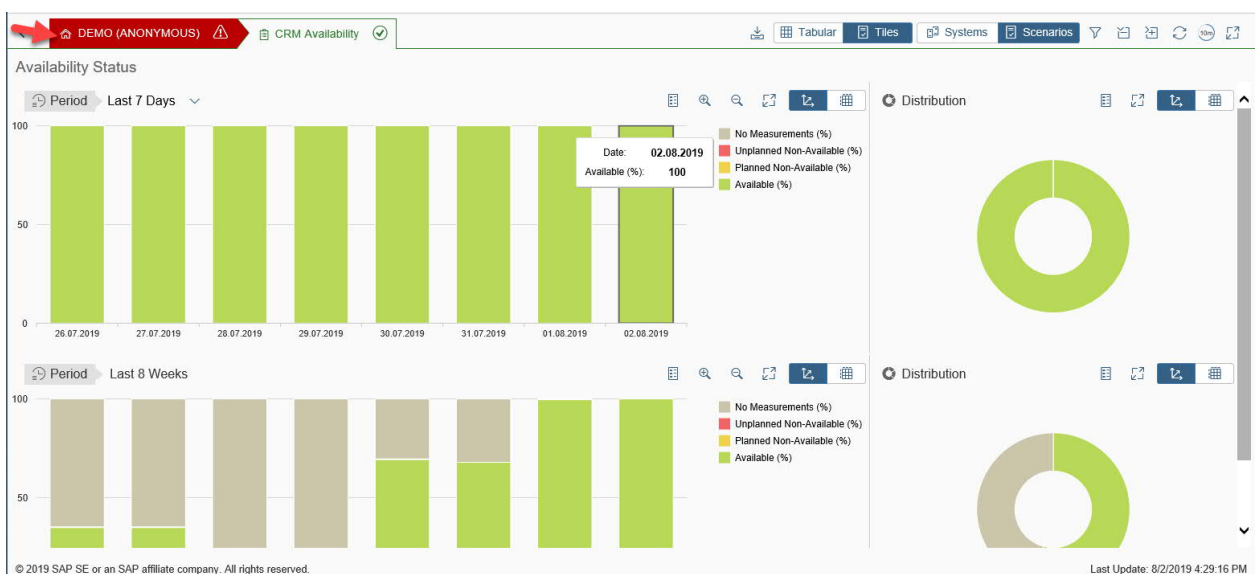
In the *Tiles* view, you can select on the entries of the tile to navigate to the details view of the respected system, and scenario.

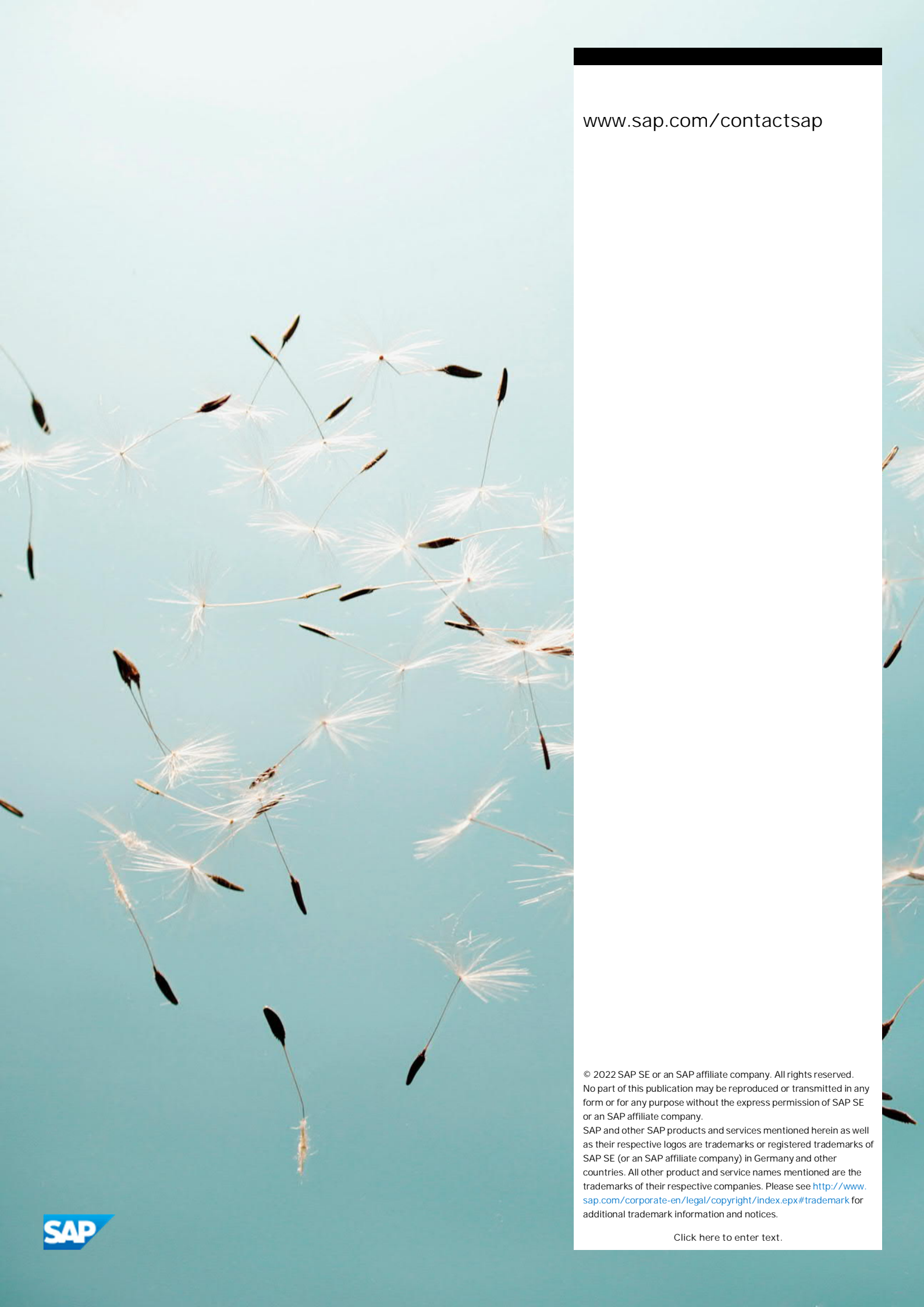
Maintenance		2	1	0	0
EPO	EPO~JAVA				PRO OS DB
OFT	OFT~ABAP				PRO OS DB
SHM	SHM110~ABAP				PRO OS DB

In the *Tabular* view, you can select the cell to navigate to the details view of the respected system, and scenario.

EPO	0.0%		#GB #%	C-0.0%:M-0.0%		#		0 ms			0				0
OFT	100%		#GB #%	C-0.0%:M-0.0%		#		298 ms			0				0
HANA	100%		111.44 GB:97.24%	C-37.2%:M-90.5%											
SHM	100%		161.62 GB:97.92%	C-37.2%:M-90.5%		#		187 ms			#				0

While navigating down, the navigator will keep track of where you are, and where you were by navigating items. You can go back to the previous level by select the left arrow button. You can also click to any navigating item to go back to that level.



A photograph of numerous dandelion seeds in various stages of dispersal against a clear, light blue sky. The seeds are captured in mid-air, creating a sense of movement and lightness. The background is a soft, uniform blue, providing a clean backdrop for the white and brown seeds.

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[Click here to enter text.](#)

The SAP logo, consisting of the letters "SAP" in white on a blue rectangular background with a white diagonal line.

