Advanced Analytics and Intelligence with Focused Run for SAP Solution Manager

Xavier Dupeyrat, Andrea Campo, SAP
December, 2019
Legal disclaimer

The information in this presentation is confidential and proprietary to SAP and may not be disclosed without the permission of SAP. This presentation is not subject to your license agreement or any other service or subscription agreement with SAP. SAP has no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP’s strategy and possible future developments, products, and platforms, directions, and functionality are all subject to change and may be changed by SAP at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. This document is provided without a warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, or noninfringement. This document is for informational purposes and may not be incorporated into a contract. SAP assumes no responsibility for errors or omissions in this document, except if such damages were caused by SAP’s willful misconduct or gross negligence.

All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.
Agenda

Advanced Analytics & Intelligence Overview
- Introduction
- Strategy and Roadmap
- Dashboard Models

FRUN Tactical Dashboard
- Introduction
- Supported Scenarios / Metrics
- Tactical Dashboard Configuration

FRUN OCC Dashboard
- Introduction
- Time dimension, queries and renderers
- Supported Scenarios / Data Providers
- OCC Dashboard configuration
Advanced Analytics & Intelligence Overview
Enabling of openness and flexibility

Use SAP’s out-of-the-box Analytics & Intelligence capabilities

- Usage of **unified UI shell cross all applications** to enable **one-stop user experience** for monitoring & alerting including embedded analytics

- **Out-of-the-box delivery of configurable dashboards** using data from different use cases:
  - **Tactical dashboards** to get an landscape overview
  - **Operation Control Center (OCC) dashboards** to define purpose oriented expert like dashboards
  - **Supported data sources**: System Monitoring, Real User Monitoring, Synthetic User Monitoring and Open Component Monitoring
Advanced Analytics & Intelligence

ALM Strategy and Roadmap
ALMs portfolio

Service Providers, Large & Very Large customers and customers with advanced needs

• Dedicated to operations of IT solutions

For Medium and Large customers with On-Premise or Hybrid Landscape

• Classical SAP customers

For the Intelligent Suite

• For cloud-centric customers
• Manages cloud and hybrid solutions
• Supports every SAP solution
• In the public cloud

On-premise / Hybrid customers

SAP Solution Manager / Focused Build

Focused Run

SAP Cloud ALM

Cloud oriented customers
Each product provides embedded analytics.
ALM Analytics Strategy

Cross Scenario Analytics

Cross Use-Case Analytics

Embedded Analytics

Cross-use case dashboards consolidate single aspects coming from the different application in one view.
Cross scenario Analytics provides 360-degree insights in development, operations, quality, delivery speed, performance, availability, usage and capacity of SAP applications.

It refers to the real-time analysis and visualization of correlated data to get insights into SAP application life-cycle management.
FRUN AAI covers two analytic layers

- Flexible Dashboard capabilities to mix and correlate metrics from different scenarios (SysMon, RUM, SUM, etc.)
- FRUN Interface to expose data to SAP Analytical Cloud platform

ALM Analytics Strategy: FRUN AAI

- Cross Scenario Analytics
  - SAP Analytics Cloud (SAC)
  - Focused Insights
  - Advanced Analytics
  - Dashboard Builder
- Cross Use-Case Analytics
  - Focused Run
  - On-premise / Hybrid customers
- Embedded Analytics
  - SAP Solution Manager / Focused Build
  - SAP Cloud ALM
  - Cloud oriented customers
FRUN AAI Dashboard Models
Dashboards Content

Legend:
- Governance
- Operations
- Strategy

Aggregation

Monthly
Weekly
Daily
On Event

FRUN

Built-in advanced analytics applications in Focused Run

SAC

Dedicated Interface (OData) exposing Control Center Gadget metrics for building SAC Stories, Analytic Apps and Predictive Applications

Control Center

Tactical

Stories

Operators L1, L2
SAP Basis
Operation Manager
Service Manager
Program Manager

© 2019 SAP SE or an SAP affiliate company. All rights reserved. I PUBLIC
FRUN Dashboard models

• Through **Control Center dashboards**, you can view in real-time the key areas of your SAP environment with multiple indicators correlated in single views for early detection of top offenders.

• The **capacity to detect** issues at early stage is a game changer in improving users experience.

• With real-time indicators visualization, **Tactical dashboards** help you to quickly identify issues.

• At the same time, through **historical views**, you can determine trends and perform detailed and predictive analysis for capacity and health indicators like workload, volume, capacity, resources utilization.
FRUN Tactical Dashboard
Tactical Dashboard
Overview

- The Tactical Dashboard reports the status of key performance indicators for your solution landscapes.

- Based on a predefined set of scenarios, it can be configured with individual thresholds for your core systems components and reports an overview of the health of your solutions.

- Each indicators provides predefined historical views to perform detailed analysis and identify early good or bad trends.
Tactical Dashboard
Supported Scenarios and Categories

System Monitoring

Real User Monitoring (RUM)

Synthetic User Monitoring (SUM)

Open Component Monitoring
Tactical Dashboard
System Monitoring View

- CPU and Memory Utilization
- Dialog Users or HTTP sessions count
- Database Backup
- Technical System Availability based on Event or HTTP MS Metric
- Dialog and HTTP Response Times (Servlet / WD for Java Systems)
- HANA Memory Utilization
- Software Maintenance
Tactical Dashboard
System Monitoring Configuration

1. Add new dashboard instance with the ‘Add page’ button

2. Select the layout

3. Add ‘Systems’ components to the page using drag&drop

4. Views are initially empty, use the scope selector to add systems in the views

5. Categories are configured by selecting the thresholds and the period used for the rating
Tactical Dashboard: System Monitoring View

Availability Detail

Current 8 Days Availability

Instance availability accessible for each day

Last 8 Weeks
Tactical Dashboard: System Monitoring View
HW Resources Detail View

Time period and granularity can be changed for each metric.
Tactical Dashboard: System Monitoring View
Performance Detail View

Dialog Steps and Average Response Time
Tactical Dashboard: System Monitoring View

Users Load Detail View

- Dialog, HTTP(s) and RFC Users
- Distribution over the day of the week or hours of the day
Tactical Dashboard: System Monitoring View

Database Memory Detail View

Direct Jump in to System Analysis

Configured allocation limit

Peak, Used and Resident Memory for HANA Databases
Tactical Dashboard: System Monitoring View

Maintenance Detail View

- **Database version**
- **Product version**
- **Operating System Patch Level**
- **Software Components and release level**
Tactical Dashboard
Synthetic User Monitoring (SUM)

Scenario Availability

Scenario Performances
Select the “SUM Scenarios” view

Add the scenario in the View Personalization

Use the Scope Selection to add the Scenario and configure locations / steps

Set the desired thresholds for each Category
Tactical Dashboard: Synthetic User Monitoring (SUM)

Availability Detail

Scenario Availability

Location Availability
Tactical Dashboard: Synthetic User Monitoring (SUM)

Performance Detail

- Share of successful executions in the scenario
- Response Time per Robot / Step
Tactical Dashboard
Real User Monitoring (RUM)

977.1 ms
Response Time

20
Users

RUM Group Performance
RUM Group Users Load
Tactical Dashboard
Real User Monitoring (RUM) Configuration

1. Select the “RUM Group” view
2. Add the Group in the View Personalization
3. Technically, it corresponds to a group in RUM.
4. Set the desired thresholds for each Category
Tactical Dashboard: Real User Monitoring (RUM)

Performance Detail

Number of daily red executions

Top 10 Requests Overview
Tactical Dashboard: Real User Monitoring (RUM)

User Load detail

Users vs executions

Active Users trend

Users Distribution Heatmap

TOP 10 Users Average Response Time / Executions
Tactical Dashboard
Open Component Monitoring (OCMon)

Availability 47%
Tactical Dashboard: Open Component Monitoring (OCMon) Configuration

1. Select the “Open Components” view
2. Add the Component in the View Personalization
3. Use the Scope Selection to add the Components
4. Set the desired thresholds for each the availability category
Tactical Dashboard: Open Component Monitoring (OCMon)
Availability Detail

Daily Availability

Availability Heatmap per Time of the Day

Availability Trend
FRUN OCC Dashboard
OCC Dashboard

Overview

- Through Operations Control Center (OCC) dashboards you can **view in real-time** the key areas of your SAP environment with multiple indicators correlated in single views for early detection of top offenders.

- Operation Control Center Dashboard provides a **direct access to key metrics** stored inside Focused Run. It is primarily intended for IT and business experts who need to build quickly detailed views for in depth analysis.

- OCC Dashboard is **flexible and easy to use**, it offers a single web interface to administrate, configure and display your dashboard instances.

- Several data providers help to access data sources on different time periods and different resolutions. You can **filter and merge various metrics** on the same chart while the look and feel can easily be changed with few clicks.

- The OCC Dashboard is available starting with **FRUN 2.0 FP01**.
OCC Dashboard
Rolling Time Dimension

- To build compelling stories with your data, IT analytics are constructed on a rolling time dimension containing two attributes: period and granularity.

- The period defines the duration of the measurements and the resolution defines the scale of the data points. (e.g. *Today/Hour, Last 6 Months/Month*).

- The time dimension is propagated from the dashboards to the individual charts.
OCC Dashboard

Queries

- Data are manipulated by queries.

- A query is responsible to return either a set of measures (series) or a row-column structured data format (table). There are two types of series:
  - Time series: a series of data points indexed in time order.
  - Categorical value series: the values of measures are represented on the y-axis, while dimensions provide the x-axis of the chart.
OCC Dashboard

Chart

- The chart is responsible for the data visualization.
- Some charts are dedicated to the table format while other charts are used for series format.
- A chart could display multiple series with a common dimension of the x-axis.
- In most cases, the x-axis is given by the selected time period. In that case, charts are useful for showing the relationship between multiple measures over a period of time.
OCC Dashboard

Renderers

Renderers are divided into the following categories:

- **Trend**: this chart is typically used to show trends over time. Depending on your needs, a single Scale or a Double Scale or a Table chart can be used.

- **Comparison**: this type of chart shows comparisons between two or more categorical values.

- **Distribution**: it focuses on displaying the distribution of values within a data set.

- **Compliance**: it indicates compliance of dimensions towards an objective.

- **Table**: the table chart shows raw data in a structured row/column format. You can choose between a dynamic table or an alert tree table. Tables offer usually breakdown functionality with jump-in to detailed charts.
OCC Dashboard
Query Attributes

- Query attributes are attached to queries. They are instructions for the different charts on how to render the data and dynamically enrich the visualization and are grouped in different categories
  - General (Color, Visibility, Legend, Trend line, etc.)
  - Multi-series Settings (Color Categories, Categories Axis and shape)
  - Calculation and Rating (SLA, Color rating etc.)
  - Interaction (Jump-in renderer)
Queries can be configured to display different metrics from the supported FRUN Scenarios

- **System Monitoring**
  - Technical monitoring metrics

- **SUM (Synthetic User Monitoring)**
  - Response time, status

- **RUM (Real User Monitoring)**
  - Response time, nos. of executions, nos. of users

- **OCMon (Open Component Monitoring)**
  - Success, warning, error
Two main steps are needed to configure an OCC Dashboard:

1. Create a custom page with the desired layout
2. Configure queries and renderers for each view in the page
OCC Dashboard Configuration

1. Create a Custom Page

1. Start the OCC Dashboard from FRUN Launchpad

2. Add a custom page and select the personalization button

3. Use the layout grid to decide the number of Gadgets (Views)

4. Drag the Gadgets from the “Available Views” area to the dashboard

5. Start Configuring each Gadget by selecting the “Open Personalization” button
OCC Dashboard Configuration

2. Configure queries and renderers for each Gadget

1. Select Time Range, period and granularity

2. Select a Chart or Table renderer

3. Add one or more queries in the Gadget

4. Configure each query by selecting the Data Provider, filters and properties
Join our social media family

Follow us on Twitter (#solman and #CloudALM), get the latest news, learn about support offerings and events!

Search for “SAP Cloud ALM” on YouTube for product demos, expert interviews and event insights!

Subscribe to WhatsApp SAP Product Support channels and receive updates including KBAs, wiki's, guided answers, SAP Notes and “hot tips”.

Join the SAP Digital Business Services LinkedIn group for networking and updates!
Thank you.

Contact information:

Xavier Dupeyrat
Product Manager
xavier.dupeyrat@sap.com

Andrea Campo
Product Owner
andrea.campo@sap.com