Operations of hybrid landscapes for high end customers with Focused Run

Focused Run Product Management, SAP Digital Business Services, Customer Experiences & Solutions
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What is Focused Run?

What is the functional scope?

How does the architecture looks like?

How to get and implement Focused Run?
Focused Run – Mission statement

• Is a powerful solution for customers & partners to operate their solution centralized and highly automated with minimal TCO impact

• Addresses advanced customer needs in scalability, data volumes, security, automation, openness, dashboarding & artificial intelligence

• Uses the full power of SAP HANA as a platform, including replication, partitioning, predictive analytics, and compression

• Is a separate installation, which can run side-by-side with an existing SAP Solution Manager

• Provides feature rich and powerful functionality dedicated to operations of IT solutions

• Isn’t covered by maintenance fee, but needs to be licensed separately from SAP
What is Focused Run?

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How to get and implement Focused Run?
Focused Run – Use cases in scope
Advanced System Management
Benefit from ultimate scalability, performance, security, and automation

• Manage landscapes with thousands of components with minimal operations costs
• Detailed System Monitoring for modelled and auto-discovered SAP based systems
• Open Component Monitoring as low-barrier monitoring for unmodeled components and services
• Monitoring of auto-discovered SAP standard jobs and selected SAP application jobs
• IT Calendar, Work Mode Management and Service Availability Management to enable efficient IT Event and Service Level Management
• Regular and automated System Health Check
• License & Maintenance Certificate Management and data transfer for Maintenance Planner
• Data collection and transfer for SAP Early Watch Alert and other automated SAP remote services
Advanced User Monitoring
Obtain end-to-end views across systems and technology

• Monitor real as well as synthetic end user requests across systems and technology

  • Real User Monitoring to monitor every single user activity including resource consumption:
    • Enable efficient triage of performance problems based on end-to-end correlation mechanism
    • Supports SAPGUI, WebDynpro, WebGUI and SAPUI5 (browser running at desktop as well as mobile) as frontends
    • Supports SAP Gateway, SAP ABAP, SAP J2EE, SAP Cloud Platform and S4HANA Cloud Edition as backends
    • Allows to map user requests to organizational information

• Synthetic User Monitoring to monitor recorded user scenarios on regular basis:
  • Monitoring of communication from different locations within a IT landscapes based on synthetic probes
  • Supports most relevant protocols as HTTP(S), SAPGUI, RFC, and Web Services
Advanced Integration Monitoring

Manage complex landscapes with millions of interface calls and/or message flows

- Support of **message flows** processed by SAP PI/PO, SAP Data Hub, SAP MII, SAP SLT and/or SAP Cloud Platform Integration
- Support of **peer-to-peer interface technologies** as IDOC, RFC, AIF, Rest and Web Services
- Advanced support for **SAP Central Finance** landscapes by providing **data flow verification capabilities**
- **Dashboard based visualization** with Systems / Cloud Services or Integration Scenarios as starting point
- **Monitoring of exceptions** for Cloud and On Prem components based on advanced dashboard capabilities
- **Message and document search** to follow integration artifacts related to certain business context information
- **End-to-End Monitoring** by correlating single integration artefacts to end-to-end message flows cross components and cross technology
- **Integrated and sophisticated alert management**
Advanced Event & Alert Management
Manage high volumes of alerts efficiently

• Efficiently operate and correlate **thousands of system, user, application and integration alerts**, including associated IT infrastructure alerts
• **Dashboard-oriented and intuitive alert inbox** as central access point for all monitoring topics
• **Alert search and alert reporting** for efficient handling of high volumes of alerts
• **Correlation of alerts to alert clusters** to reduce alert volume and costs associated to alert handling
• Automated execution of **alert response procedures** to trigger automated follow-up actions as problem collection
• **Inbound integration** to receive metrics and events from external monitoring tools as IT Infrastructure Management tools e.g. Nagios
• **Bi-directional outbound integration** for customer specific integration with ticket management systems e.g. ServiceNow
• **Fuzzy search** for alerts based on alert name, associated managed object and/or processor
Advanced Configuration Monitoring

Ensure **transparency and compliance** in huge system landscapes

- Enable **central governance** for software levels and configuration settings within the complete landscape
- Enforce validation of configuration & security settings by automated **comparison of TO-BE with AS-IS situation**
- Define TO-BE situation in **policies** which are derived from **SAP configuration templates** as well as customer specific security hardening guides
- **Distribution of SAP policy templates** via github to support efficient **customer specific policy maintenance**
- **Efficient browsing and searching** within high volumes of configuration items
- **Analysis of software and parameter changes** which maybe the root cause for critical issues
- Support of configuration items at **system, database and operating system level** ➔ **Continuous delivery of new content** based on customer feedback
- Openness to **integrate customer specific data providers and content**
Advanced Root Cause Analysis
Deep dive root cause analysis on request

• Enable efficient and deep dive root cause analysis by tools as System Analysis, Trace Analysis and File System Browser
• System Analysis to allow deep dive root cause analysis:
  • Intuitive and contextually linked dashboards enabled guided root cause analysis
  • Standard content is provided out-of-the-box for HANA, ABAP, J2EE, BO, Apache Tomcat, and OS
  • Additional detailed data collection can be switched on demand to support specific hyper care phases
  • Open KPI Store to integrate 3rd party data sources as application performance management tools or infrastructure management tools
• Trace Analysis allows dynamically to switch on deep detailed component specific traces across system and technology
• File System Browser gives secure read-only access to remote file systems for diagnosis purposes
Advanced Analytics & Intelligence
Enabling of advanced analytics and prediction

- Provide **maximum value of collected data** by supporting **different levels of analytics**:
  - **Embedded analytics** enforced by Focused Run UI shell to have one stop application experience
  - **Cross use case analytics** integrated in Focused Run to visualize data from different data sources in one common dashboard experience
  - **Cross scenario analytics** to expose data originated in Focused Run to external consumers as SAP Analytics Cloud to define customer specific user stories

- Out-of-the-box **cross use case analytics dashboards**:
  - **Tactical dashboards** to get an landscape overview
  - **Operation Control Center (OCC) dashboards** to define purpose oriented expert like dashboards

- Usage of **SAP’s advanced prediction capabilities**:
  - **Forecasting of metric** behavior in future
  - **System Anomaly Prediction** to identify critical situations before actual occurrence based on pre-defined and pre-delivered ML models
  - **Support of semi-supervised ML models** to enable customers to build their own models
## Focused Run - Product road map overview & key innovations

### Recent innovations

<table>
<thead>
<tr>
<th>System Mgmt/Configuration Monitoring</th>
<th>Alert Management/Operation Automation</th>
<th>Integration Monitoring/User Monitoring</th>
<th>Root Cause Analysis/Analytics and Intelligence</th>
</tr>
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<tbody>
<tr>
<td>Job Monitoring for system jobs via job groups</td>
<td>Alert management: Bi-directional outbound integration, Fuzzy search and additional alert keys</td>
<td>Integration Monitoring: New content (SLT, SAP MII, AIF messages for SAP S/4HANA Cloud and OP)</td>
<td>Open KPI Store to integrate external data sources as API or infrastructure monitoring tools</td>
</tr>
<tr>
<td>New OCM content (RFC Availability, OS Scripts, Log files), API driven OCM configuration and load balancing</td>
<td>GP Framework: GP Runtime &amp; Executions with SAPUI5 based UI, new GP plug-ins e.g. task lists</td>
<td>Exception Management: New content for cloud products as Ariba CGI, IEP, and HANA SDI</td>
<td>Operations Control Center and tactical dashboards</td>
</tr>
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<td>New tiles for EarlyWatch Alert in FRUN Launchpad</td>
<td>GP Framework: GP Catalog &amp; GP Planning Management with SAPUI5 based UI and further UI usability improvements</td>
<td>WebDynpro and WebGUI support for RUM</td>
<td>Configuration automation of System Anomaly Prediction and some UI improvements</td>
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<tr>
<td>New UIS based Policy Editor in CSA and new content</td>
<td>Synthentic User Monitoring configuration UI in SAPUI5</td>
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</table>

### 2019 – Planned innovations

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<tr>
<td>Data collection for remote services (GoInLive Check, EarlyWatch Check, OS/DB Migration Check)</td>
<td>Alert Management: Rule based alert correlation and integration with SolMan Service Desk</td>
<td>Integration Monitoring: Enhancement of existing content (SLT, MII, IDOC, AIF/XML messages) and data flow verification for cFIN</td>
<td>Open KPI Store to integrate external data sources as API or infrastructure monitoring tools</td>
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<td>Job Monitoring for application jobs via job groups</td>
<td>GP Framework: GP Catalog &amp; GP Planning Management with SAPUI5 based UI and further UI usability improvements</td>
<td>Support for S/4 HANA CE for Real User Monitoring and geo map view (mapping of users to locations)</td>
<td>Operations Control Center and tactical dashboards</td>
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<td>SysMon content comparison tool and change log</td>
<td>Support for S/4 HANA CE for Real User Monitoring and geo map view (mapping of users to locations)</td>
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<td>Configuration automation of System Anomaly Prediction and some UI improvements</td>
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<tr>
<td>Improved support for availability metrics in OCM</td>
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<tr>
<td>Cloud Platform Integration – Certificate Alerting</td>
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### 2020 – Product direction

- **Changed data retrieving approach**
  - Support of agentless push based data transfer to increase coverage for SAP based cloud products for all application monitoring use cases

- **Correlation**
  - Correlate events and metrics coming from different monitoring use cases to problem contexts to accelerate the problem resolution process
  - Increase support to identify “correlation potential” and to derive associated correlation roles

- **Open infrastructure**
  - Simplified consumption of external data sources including UI integration and correlation with data originally coming from Focused Run

### 2021 – Product vision

- **Prediction**
  - Predict anomalies across all monitoring use cases to allow identification of problems before they influence business service availability

- **Usage of machine learning**
  - Initial threshold definition and dynamic threshold adaptation based on machine learning for application monitoring use cases

- **Automation**
  - Close the gap between problem detection and problem resolution by delivering out-of-the-box and automated “problem resolution procedures”
  - Provide automation content for on-premise and cloud products to relieve operation staff from reoccurring tasks

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1. This is the current state of planning and may be changed by SAP at any time without notice.
What is Focused Run?

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How to get and implement Focused Run?
Focused Run – Use Cases & High Level Architecture

Focused Run Application Foundation

- Landscape Management Database
- Simple Diagnostic Agent & SAP Host Agent
- Monitoring & Alerting Infrastructure
- Expert Scheduling Framework
- Simple System Integration
- Guided Procedure Framework

SAP HANA + SAP NetWeaver ABAP + SAPUI5 as Technology Foundation
Focused Run – Components & Communication

Administration Network

Focused Run

One or multiple end user and configuration instances

One or multiple data streaming instances

SAP HANA Platform with scale out, replication, compression, ...

HTTP(S) Proxy

HTTP(S) Reverse Proxy

Customer Network

Customer Management Server

CA APM

Managed DBMS (HANA, ASE, Oracle, DB6, ...)

SAP Host Agent

Simple Diagnostic Agent

Managed Systems (ABAP, J2EE, BOE, ATC, ...)

HTTP(S)

HTTP(S)

HTTP(S)

HTTP(S)

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Focused Run - Your Immediate Benefits

Small technical footprint and reduced total cost of ownership

- Extremely simplified architecture through removal of J2EE Stack, SAP BW, SAP CRM, DBA Cockpit, Extractor Framework, SLD (optional)
- Streamlined push based communication (no RFC, no native DB, no RMI/P4)

Highest possible security levels

- Proven built-in security concept with HTTP(S) as communication protocols and push as communication direction
- Clear separation of different customers with multi-tenancy enablement

Improved scalability, performance, and data throughput

- Scalability improved by factor 25 – up to 25,000 systems!
- Performance increased by factor 15
- Data throughput increased by factor 40
- Data footprint decreased by factor 20

Maximum of automation during assignment and maintenance of managed systems

- Simple Diagnostic Agent is embedded in SAP Host Agent
- Automated preparation as well as automated assignment of managed systems (UI driven or API driven)
- Automatic reconfiguration as reaction to auto-discovered landscape changes
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How to get and implement Focused Run?

**Focused Run Positioning Workshop**

- As result of the workshop, SAP will provide a project proposal including Hardware sizing, License sizing, and possible consulting package.
- Customers & Partners get full transparency regarding the boundary conditions for the Focused Run implementation project.

**Buy the Focused Run license**

The software is sold via SAP Global Price List by SAP Sales Organization. Customer individual discounts can be applied.

**Focused Run Project Setup & Architecture Workshop**

- Download the appropriate software package from the SAP Support Portal.
- As a jumpstart the Focused Run Project Setup & Architecture Workshop should be conducted.

More information can be found here:
Focused Run – The ultimate solution to operate hybrid landscapes

- **Low Total Cost of Operations** through simplified architecture and automated setup and operation
- **Effective management of high volume of managed objects** using well-performing, scalable and secure platform
- **Added value for customer** through advanced functionality as Advanced User & Integration Monitoring
- **Innovation platform** with clear focus on operations to enable Artificial Intelligence use cases supported by SAP HANA
- **Ability to operate multiple customer** in one platform because of strong customer data separation and secure communication
- **SLA tracking and improvement** with System Monitoring, Service Availability Management and System Anomaly Prediction
- **Cloud-ready** for operate hybrid customer landscapes
Appendix

- Big picture - Operations of hybrid landscapes
- Different strategic operations platforms for different target groups
- Functional scope of hybrid operations
Big picture - Operations of hybrid landscapes

- **HEC, Hosting, AMS and IaaS Service Providers**
  - System and Application Management Data
    - operated by SP’s and used by SP’s, customers and SAP

- **Customer On-Prem Landscape**
  - System, Application and Business Process Management Data
    - operated by customers and used by customers and SAP

- **Focused Run**
  - System, Application and Business Process Management Data
    - virtual network

- **SAP Solution Manager**: On-prem operation platform for hybrid landscapes operated and used by customers and SAP

- **Focused Run**
  - Application and Business Process Management Data

- **SAP Cloud ALM**
  - SAP C/4HANA
  - SAP Fieldglass
  - SAP Customer Experience
  - SAP Cloud Platform
  - SAP SuccessFactors
  - SAP Ariba
  - SAP S/4HANA Cloud
  - SAP Concur

- **SAP SaaS Cloud / SAP Cloud Platform**

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Different strategic operations platforms for different target groups

- **SAP Solution Manager** available for hybrid customer solutions
  - Fully integrated ALM suite for on-prem-centric medium and larger customers
  - Customers who are satisfied with the currently provided functional scope

- **Focused Run** available for hybrid customer solutions
  - Operations platform for service providers and high-end hybrid customers
  - Customers with advanced needs, which go beyond SAP Solution Manager and SAP Cloud ALM

- **SAP Cloud ALM** planned for hybrid customer solutions
  - Fully integrated ALM suite for cloud-centric small, medium and larger customers
  - Customers who are requesting standardized cloud-based operation platform
Different strategic operations platforms for different target groups

SAP Solution Manager

*available* for hybrid customer solutions

Focused Run

*available* for hybrid customer solutions

SAP Cloud ALM

*planned* for hybrid customer solutions

Three strategic platforms to match customer reality!
Functional scope of hybrid operations

<table>
<thead>
<tr>
<th>Business Service Management</th>
<th>- Consolidates information from different monitoring &amp; operation use cases to business service level agreements (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operation Automation</strong></td>
<td>Focused on task automation triggered by events or regularly executed operation flows</td>
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<tr>
<td></td>
<td>Includes IT Calendar with Work Mode Management as well as Notification Management</td>
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<tr>
<td><strong>Business Process Monitoring</strong></td>
<td>- Is focused on BP KPI’s and BP documents</td>
</tr>
<tr>
<td><strong>Integration Monitoring</strong></td>
<td>- Is focused on integration flows and integration error situations</td>
</tr>
<tr>
<td><strong>Application Monitoring</strong></td>
<td>- Is focused on availability, exception, performance and jobs</td>
</tr>
<tr>
<td><strong>Synthetic &amp; Real User Monitoring</strong></td>
<td>- Is focused on end user performance and utilization</td>
</tr>
<tr>
<td><strong>System, DB and OS Monitoring</strong></td>
<td>- Is focused on technical aspects of modelled and unmodeled managed systems, DB’s and Hosts</td>
</tr>
<tr>
<td><strong>IT Infrastructure Monitoring</strong></td>
<td>- Is commodity covered by 3rd party or home developed tools **)</td>
</tr>
<tr>
<td><strong>Event &amp; Alert Management</strong></td>
<td>Enables root cause analysis at business process level</td>
</tr>
<tr>
<td><strong>Business Process Improvement</strong></td>
<td>- Allows horizontal and vertical correlation</td>
</tr>
<tr>
<td><strong>Analytics &amp; Intelligence</strong></td>
<td>Consolidates data visualization cross use case based on flexible dashboards</td>
</tr>
<tr>
<td><strong>Technical Analytics</strong></td>
<td>Enables analysis of performance issues and error situations at technical and user level</td>
</tr>
<tr>
<td><strong>Analytics &amp; Intelligence</strong></td>
<td>Uses AI capabilities to derive intelligent decision to enable AIOPs</td>
</tr>
</tbody>
</table>

*) Planned only in SAP Cloud ALM for Operations   **) Not part of SAP delivered software