Master Guide
Document Version: 4.03 – 2023-03-27

PUBLIC

SAP Focused Run

Release 4.0 Support Package 00

Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text: for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade, and database tools.
Example	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard:, for example, F2 or ENTER.

Document History

Caution

Before you start the implementation, make sure you have the latest version of this document that is available at https://help.sap.com/viewer/p/FRUN.

Version	Date	Change
4.01	2022-11-28	Initial Version for SAP Focused Run 4.0 SP00
4.02	2022-11-28	Updated chapter *5.4.6 Implementing SAP NetWeaver with SAP Focused Run* Typo corrected: SAP S/4HANA FND 1909 SP05 > SAP S/4HANA FND 2020 SP04
4.03	2023-03-27	Deleted Chapters *6.1.2.6.1 and 6.1.2.6.2* Information obsolete for 4.0 Updated chapter *5.2.2 Preparing Simple Diagnostics Agent Ditsribution* Reference to Chapter 6.1.2.5. deleted (obsolete for 4.0) Updated chapter *6.1.2.6 Job & Automation Monitoring* Job SAP_FRN_JAM_STD_TO_MANDT deleted from list

Table of Contents

1 Getting Started

1.1 About This Document

Purpose

This master guide is the starting point for the technical implementation of SAP Focused Run (also: FRUN). It mainly contains cross-scenario implementation information.

> **Note**
>
> You can find the latest information about the technical implementation of SAP Focused Run at https://help.sap.com/viewer/p/FRUN
> Remember always to download the master guide and security guide from this location. They are subject to regular updates.
>
> Finally, be sure to follow this document strictly and precisely to design your system landscape, to define your implementation planning, and above all, to complete the configuration with the mandatory settings in the required order.

The master guide references related documents that include further details, such as the following:

- Installation guides for single software units
- SAP Notes
- Further configuration documentation

> **Note**
>
> This guide contains only configuration steps for the SAP Focused Run add-on.
>
> For general additional configuration steps of the underlying SAP NetWeaver release as part of SAP S/4HANA foundation, refer to the related SAP NetWeaver guides in SAP Help Portal, for example. You can use the Guide Finder for SAP NetWeaver and ABAP Platform as an entry point or use the task list `SAP_BASIS_SETUP_INITIAL_CONFIG`. (See chapter 5.1.1. for details.)

Constraints

The primary focus of this master guide is to describe the overall technical implementation of SAP Focused Run, rather than explain every single component in depth. This means that there may be additional software dependencies that are not mentioned explicitly in this document. You can find more information on component-specific software dependencies in the corresponding installation guides.

1.2 Abbreviations and Terms

Abbreviation or Short Form	Long Form
AAI	Advanced Analytics & Intelligence
AAM	Advanced Application Management
ACM	Advanced Configuration Monitoring
AEM	Advanced Event and Alert Management
AIM	Advanced Integration Monitoring
ARA	Advanced Root Cause Analysis
ASM	Advanced System Management
AUM	Advanced User Monitoring
CA APM	CA Application Performance Management
CSA	Configuration and Security Analysis
EWA	SAP EarlyWatch Alert
FRUN / SAP Focused Run	SAP Focused Run
ITCal	IT Calendar
JRE	Java Runtime Environment
LMDB	Landscape Management Database
RUM	Real User Monitoring
SAM	Service Availability Management
SCN	SAP Community Network
SDA	Simple Diagnostics Agent
SLD	System Landscape Directory
SLDR	SLD Data Router
SSI	Simple System Integration
SUM	Synthetic User Monitoring
SysAna	System Analysis
SysMon	System Monitoring
TA	Trace Analysis
WMM	Work Mode Management

1.3 SAP Focused Run Use Cases

SAP Focused Run provides improved solution operations features relevant for the run phase of a managed system landscape.

The main use cases of SAP Focused Run and their corresponding key areas are as follows:

Use Case	Description
User Monitoring	Monitoring of user experience across system and technology stacks. In this use case, the functionality of Real User Monitoring (RUM) and Synthetic User Monitoring (SUM) are bundled. With RUM, you can monitor real user requests across systems and technologies. It correlates and assembles measured data from servers for end-to-end user scenarios. Data is provided by SAP GUI and SAPUI5 clients, SAP Gateway, and SAP ABAP systems. RUM covers performance as well as utilization measurement (also called Web Analytics). SUM enables you to simulate users accessing your application UIs (based on HTTP/S or SAPGUI) from different locations. It thus offers 24/7 global monitoring of your applications' availability and performance.
Integration Monitoring	Monitoring of data exchange across system and technology stack. Includes the following: • Monitoring of single interface calls/messages for orchestrated and non-orchestrated on-premise and cloud environments • Monitoring of single exceptions for on-premise and cloud environments • Monitoring of SAP PI-related issues (single PI channels, single PI messages) • Monitoring of hybrid scenarios containing cloud and on-premise components • Monitoring of connections between on-premise and cloud components
System Monitoring	Effectively and efficiently manages many systems, databases, and hosts. The focus is on functionality such as the following: • System Monitoring (SysMon) • Metric Forecasting and System Anomaly Analysis
Application Monitoring	• Health Monitoring to lower the barrier to monitoring cloud or on-premise-based applications by using an unmodeled approach in

Use Case	Description
	combination with adding context information via assigned tags: o URL availability and URL certificates o OS scripts and OS processes o Availability of hosts and TCP ports o Log files and application healthiness o Availability of Windows services and RFC components o Application check of cloud services (using the metric types HTTP Health API and Prometheus) • In addition, a modeled approach is provided for monitoring cloud services maintained in the Cloud Services Management app. The following types of cloud services are supported: o SAP BTP, ABAP environment o SAP BTP, Neo environment o SAP HANA Cloud o SAP Integration Suite (API Management) o SAP Integration Suite (Cloud Integration) o SAP Integrated Business Planning o SAP Marketing Cloud o SAP S/4HANA Cloud • These services are monitored by means of the following: o Overview of metrics grouped on cards o For pull data collection: integration with the Expert Scheduling Management Cockpit and an ABAP collection job with a frequency of five minutes. • Efficient monitoring of auto-discovered SAP standard jobs and selected SAP application jobs
Alert Management	Provides enhanced management capabilities for events and alerts based on monitoring use cases, such as Advanced User Monitoring or System Monitoring. Comes with efficient and mass-volume-enabled alert dashboards, alert inbox, and alert detail displays. Allows you to trigger alert reaction procedures that guide you through the analysis and resolution of alerts. Some parts of the alert reaction process can be automated. SAP delivers a set of

Use Case	Description
	predefined alert reaction procedures for ABAP, JAVA, HANA, and BOBJ availability alerts. You can also define your own alert reaction procedures using the guided procedure framework.
Analytics & Intelligence	Out-of-the-box dashboarding and intelligence capabilities. Includes the following: • Unified shell • Seamless integration of monitoring, alerting, and analytics • Use case specific adoption of artificial intelligence Tactical dashboard for reporting the status of key performance indicators
Root Cause Analysis	Highly detailed root cause analysis capabilities tailored to your needs. Includes the following: • System Analysis • Trace Analysis • File System Browser • Configuration & Security Analysis: Analyzes configuration and security settings across systems and technologies. Enables you to browse and investigate high volumes of configuration items in complex system landscapes. Validates technical and security configuration settings against customer-specific target configuration templates. Supports configuration settings of system, database, and host.
Operations Automation	• Guided Procedures, including the Automated System Health Check for ABAP Systems and Operations Flows for Alerts
Maintenance & Service	• License & Maintenance Certificate Management • SAP EarlyWatch Alert (EWA)
Service Level Management	Efficient IT event and service level management of on-premise systems and cloud services by IT calendar, work mode management, notification management, and service availability management • Service Availability Management (SAM) • System Health Check • IT Calendar (ITCal) • Work Mode Management (WMM)

More Information

Find all information about SAP Focused Run 4.0 use cases in the following:

- SAP Help Portal
  SAP Help Portal provides access to SAP product documentation and related information, such as SAP Notes, product availability information, and community content.
  For information about SAP Focused Run 4.0, access the help portal at:
  https://help.sap.com/viewer/p/FRUN
- SAP Support Portal
  SAP Support Portal provides access to task-driven support resources on an intuitive interface. On the product pages, customers can find information such as SAP Knowledge Base Articles, SAP Notes, SAP Community questions and blogs, Guided Answers, product documentation, and additional featured content straight from product experts at SAP.
  Access SAP Support Portal at:
  https://support.sap.com/en/alm/focused-solutions/focused-run.html

1.4 SAP Focused Run Implementation

Implementing SAP Focused Run requires you to address the following items, which are described in detail in the next chapters:

1. Define implementation (such as scope, hardware and software requirements, and release restrictions).
2. Plan landscape (for the relevant use cases).
3. Check installed SAP HANA revision.
4. Install and prepare the SAP NetWeaver Application Server for ABAP system (including the SAP Focused Run add-on).
5. Configure SAP Focused Run application foundation.
6. Configure the relevant SAP Focused Run use cases.

IMPORTANT NOTICE: To perform SAP Focused Run configuration, you require the sapadm password defined while installing an SAP Host Agent in the managed landscape.

2 Define Implementation

During an implementation project, take the following aspects into account to make the right decisions:

Aspect	Description	Further Information
Scope and Requirements	Determine the scope of your SAP Focused Run implementation.	For more information, see *SAP Focused Run Use Cases*.
Landscape Planning	Determine the system landscape and consider the landscape-relevant aspects for your required use case.	
Hardware and Software Prerequisites	Check the required minimum SAP NetWeaver Application Server for ABAP version.	SAP Note 2354930
	Check the required minimum revision of the installed SAP HANA system.	For more information, see *Check Installed SAP HANA Revision*.
	Check the hardware sizing required for your SAP Focused Run implementation.	The recommended hardware sizing will be provided by your implementation partner as part of the license proposal.*
Sizing	Check the hardware sizing required for your SAP Focused Run implementation.	The recommended hardware sizing will be provided by your implementation partner as part of the license proposal.*
	Disk Space Needed for Simple Diagnostics Agent	SAP Note 2501820
	Disk and RAM Space needed for SAP Host Agent	See the hardware prerequisites in the SAP NetWeaver Guide for your operating system.
	Sizing information to set up R in your landscape for System Anomaly Prediction	SAP Note 2686042
Security Planning	Plan the user management and infrastructure security.	For more information, see *SAP Focused Run Security Guide.*
Release Restrictions	Check SAP Notes for any release restrictions.	

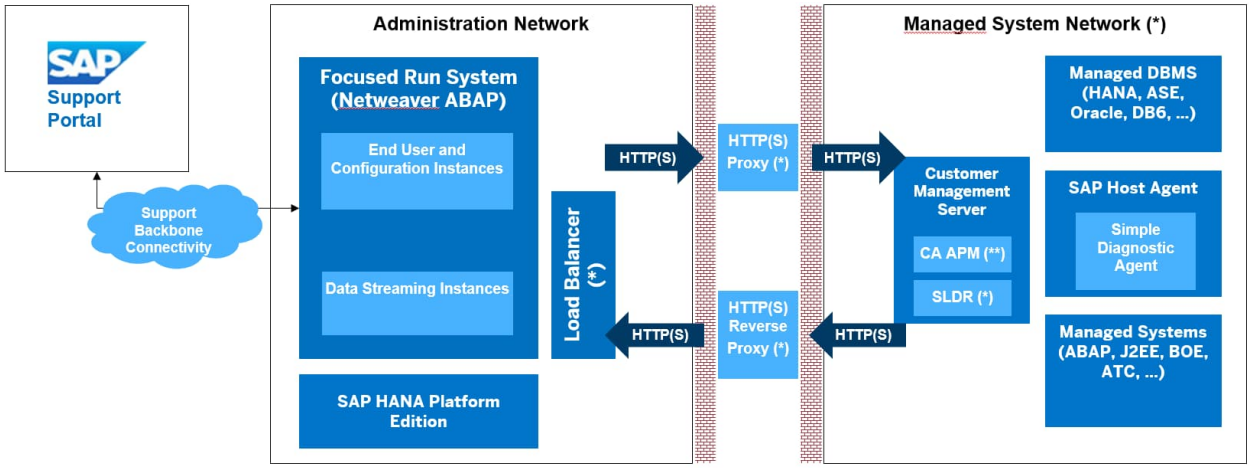
* Note

SAP Focused Run is priced based on used SAP HANA memory in gigabytes (GB) with volume tiers. As a follow-up to the SAP Focused Run positioning workshop, SAP provides customers with SAP HANA used memory calculation as well as with the hardware sizing for their SAP Focused Run project.

3 Plan Landscape

3.1 Integration of Managed On-Premise Systems

Your managed on-premise landscape, integrated with SAP Focused Run, typically consists of various components as shown in the following graphic.



The following components are deployed in the landscape:

- SAP Focused Run system (running on SAP S/4HANA foundation)
- (Optional) Load balancer to distribute HTTP(S) traffic between multiple processing instances. A load balancer is strongly recommended for production usage. The traffic consists of inbound data streams and end-user communication.
- (Optional) HTTP proxy to forward data from the administration network to managed system network. The proxy is not required if direct communication is possible from the SAP Focused Run system to all host agents on hosts in the managed system network on physical/virtual hostname and port 1128 (http) or 1129 (https).
- (Optional) HTTP reverse proxy for sending data from (unsecure or untrusted) managed system network areas to the SAP Focused Run system. The reverse proxy is required to separate the network segments with a high security level and ensure data separation in SAP Focused Run. An SAP Focused Run end-user data access authorization concept is only possible if the metrics are sent by different reverse proxy servers.
- (Optional) Customer management server with the following components deployed:
  - (Optional) CA Application Performance Management (CA APM) is a third-party product. The software component is not part of the SAP Focused Run installation but is available for all customers with a valid SAP maintenance contract as part of their SAP Solution Manager installation. In SAP Focused Run, CA APM is only utilized to collect available Bytecode Injection Metrics (such as for JRE engines or .NET runtime). In networks without components utilizing CA APM native instrumentation, this component is not required.
  - (Optional) SLD Data Router (SLDR) is used to forward the SLD data supplier content to multiple target systems (for example, SLD server in SAP NetWeaver Java or LMDB in SAP Focused Run). If the landscape

data is only collected for SAP Focused Run, with no need to supply SAP Solution Manager, SAP NetWeaver PI, or other components utilizing SLD data, the SLD data supplier of all systems can be connected directly to the reverse proxy or load balancer of the SAP Focused Run system.

- SAP Host Agent is part of each SAP system installation and must be deployed on each host that should be managed by SAP Focused Run.
- Simple Diagnostics Agent is installed as an add-on to the SAP Host Agent during the connection process to the SAP Focused Run system. With the help of the Simple Diagnostics Agent, most of the data needed for SAP Focused Run use cases is collected and streamed to the SAP Focused Run system.
- Managed systems and managed databases are not part of the SAP Focused Run installation or deployment scenario. However, because they are in scope and relevant as objects for which SAP Focused Run provides operations capabilities, the distribution of those systems within the defined customer network areas is of importance and should be planned.
- For various use cases, SAP Focused Run exchanges data with SAP Support Portal. A connection to SAP Support Portal is therefore required.

3.2 Integration of Managed Cloud Tenants

The integration of managed cloud tenants does NOT require any Agent to be installed (SAP Host Agent / Simple Diagnostics Agent).

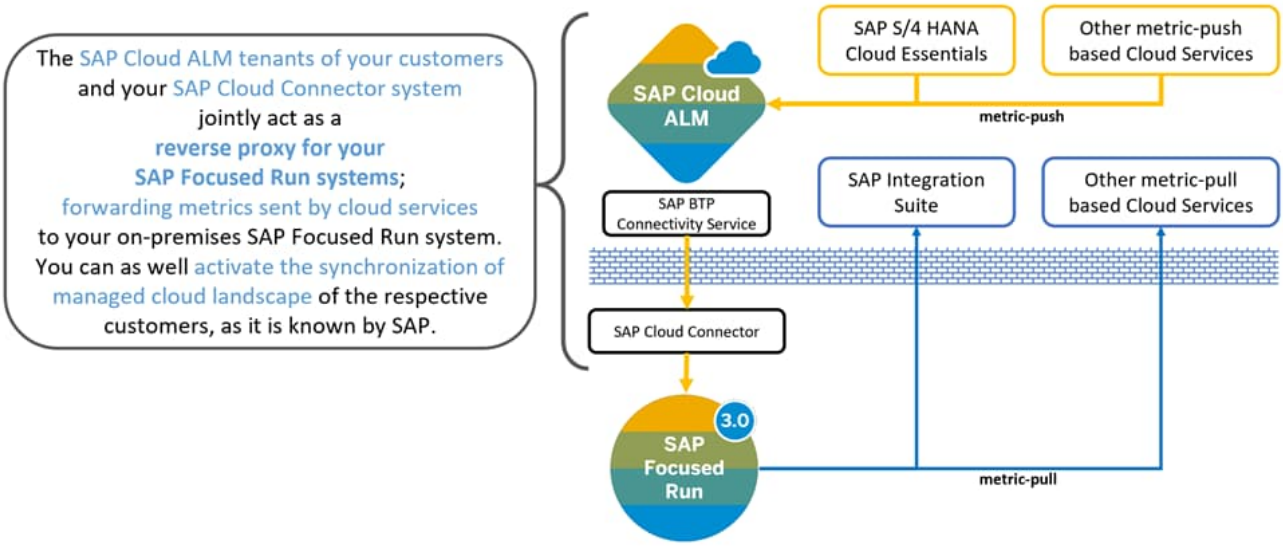
Depending on the integrated cloud product, your SAP Focused Run system will:

- either recurrently fetch the metrics directly from the managed cloud tenant (metric pulling),
  Note: While defining the connectivity to reach the managed cloud tenant, you will have to specify your HTTP proxy required to reach the internet.
- or receive the metrics from the managed cloud tenant (metric pushing).
  Note: SAP proposes to use – per customer network – the Cloud ALM tenant of the respective customer, acting as a SAP Focused Run reverse proxy for the managed cloud services located in the internet, to reach your on-premises SAP Focused Run system.

In both cases, you will find all configuration details in the SAP Focused Run expert portal

Note

By setting up this SAP Focused Run reverse proxy for the managed cloud services, you can also activate the automatic import into the Cloud Service Management (LMDB) of the managed cloud landscape of the respective customers, as it is known by SAP.



3.3 Planning Information

For more information about planning topics not covered in this guide, refer to the following content:

Content	Location on SAP Service Marketplace
Latest versions of SAP Focused Run guides	https://help.sap.com/viewer/p/FRUN -> Implement
Released platforms and technology-related topics, such as maintenance strategies and language support	To access the Platform Availability Matrix directly, go to https://support.sap.com/en/release-upgrade-maintenance.html
Sizing	SAP Focused Run ABAP and SAP HANA installation: Part of presales activities * Disk space needed for Simple Diagnostics Agent: SAP Note 2501820 Disk and RAM space needed for SAP Host Agent: See OS dependent NW Installation Guide under: *Hardware Requirements*
Performance	https://www.sap.com/about/benchmark.html
Information about Support Package Stacks, latest software versions, and patch level requirements	https://support.sap.com/sp-stacks

* Note

SAP Focused Run is priced based on used SAP HANA memory in gigabytes (GB) with volume tiers. As a follow-up to the SAP Focused Run positioning workshop, SAP provides customers with the SAP HANA used memory calculation as well as with the hardware sizing for their SAP Focused Run project. For more information, see https://support.sap.com/en/alm/focused-solutions/focused-run.html -> *Get SAP Focused Run*.

3.4 Further Useful Links

The following table lists further useful links on SAP Service Marketplace:

Content	Location on SAP Service Marketplace
Information about creating error messages	https://launchpad.support.sap.com/#/incident/create
SAP Notes search	https://launchpad.support.sap.com/#/mynotes?tab=Search
SAP Software Distribution Center (download and order software)	https://support.sap.com/en/my-support/software-downloads.html

3.5 Related Guides

You can find more information about the prerequisite components in the following documents:

Title	Location
SAP Focused Run expert portal (SAP Focused Run Guides, Infrastructure Preparation Guides)	https://support.sap.com/en/alm/focused-solutions/focused-run-expert-portal.html
Guides for SAP NetWeaver 7.5	https://help.sap.com/viewer/product/SAP_NETWEAVER_750/7.5.19/en-US?task=discover_task
UI Technologies	https://help.sap.com/viewer/product/SAP_NETWEAVER_UI_TECH/EXTERNAL/en-US
SAP NetWeaver: Function-Oriented View	https://help.sap.com/viewer/ff18034f08af4d7bb33894c2047c3b71/7.5.19/en-US

3.6 Important SAP Notes

Read the following SAP Notes before you start the installation. These SAP Notes contain the most recent information on the installation, as well as corrections to documentation.

Make sure that you have the up-to-date version of each SAP Note, which you can find in SAP Support Portal at http://support.sap.com/notes.

SAP Note Number	Title	Description
2354930	Release strategy for the ABAP add-on SAP Focused Run	Release and Installation Information for SAP Focused Run 4.0
3255599	Release Information Note for SAP Focused Run 4.0 SP00 (contains list of use-case specific collective notes)	Note: These notes may be updated on a regular basis. They contain critical information that must be considered not only when initially implementing SAP Focused Run, but also when operating it.
2641304	SAP Focused Run System Preparation Tool for Managed System Preparation	
2369401	Release Information Note for Simple Diagnostics Agent 1.0	
2987626	[Only relevant for an FRUN system update] SAP Focused Run 3.0 Delta Information for Upgrade from SAP Focused Run 2.0 FP03 to SAP Focused Run 3.0 SP00	Relevant if you update your system from SAP Focused Run 2.0 FP03 to SAP Focused Run 3.0 SP00
3069012	[Only relevant for an FRUN system update] SAP Focused Run 3.0 Delta Information for Upgrade from SAP Focused Run 3.0 SP00 to SAP Focused Run 3.0 FP01	Relevant if you update your system from SAP Focused Run 3.0 SP00 to SAP Focused Run 3.0 FP01
3127574	[Only relevant for an FRUN system update] SAP Focused Run 3.0 Delta Information for Upgrade from SAP Focused Run 3.0 FP01 to SAP Focused Run 3.0 FP02	Relevant if you update your system from SAP Focused Run 3.0 FP01 to SAP Focused Run 3.0 FP02
3207510	Only relevant for a FRUN system update] SAP Focused Run 3.0 Delta Information for Upgrade from SAP Focused Run 3.0 FP02 to SAP Focused Run 3.0 FP03	Relevant if you update your system from SAP Focused Run 3.0 FP02 to SAP Focused Run 3.0 FP03
3269755	Only relevant for an FRUN system update] SAP Focused Run 4.0 Delta Information for Upgrade from SAP Focused Run 3.0 FP03 to SAP Focused Run 4.0 SP00	Relevant if you update your system from SAP Focused Run 3.0 FP03 to SAP Focused Run 4.0 SP00

4 Prepare Implementation

4.1 Choose SAP Focused Run SID and Configuration ID

SAP Focused Run stores configuration data of the Simple Diagnostics Agent (SDA) in subdirectories identified by the configuration ID. This separates the different configurations from different SAP Focused Run systems. The configuration ID is assigned per network. By default, it is derived from the customer ID and the system ID of your SAP Focused Run system: <CID>_<SID>. If you plan to connect one SDA to multiple SAP Focused Run systems, it is mandatory for the different SAP Focused Run systems to have different configuration IDs. This applies when you connect DEV/QAS/PRD SAP Focused Run systems to the same managed system, or if your hosting provider also runs an SAP Focused Run system for system operations.

> **Note**
>
> The following screenshot of the file system illustrates an SDA on a managed system connected to multiple test and development SAP Focused Run systems with different configuration IDs:

```
:~ # ls /usr/sap/hostctrl/SMDAgent/default/configuration/com.sap.smd.agent.application.e2emai/
FD4  FQ4  GFN  SQH  SQU
```

If the generation pattern for the configuration ID doesn't meet your requirements, you can change the configuration ID that is assigned to new networks by adding an entry to the database table `AMA_CONFIG`, key: `AMA.FRUN.CONFIGURATION_ID`.
SAP recommends that service providers hosting customer systems are also connected to the customer's own SAP Focused Run system or additional service providers (for example, hosting provider and application service provider) to set the configuration ID to a pattern that does not match the pattern of the automatically generated configuration id (<CID>_<SID>). Please use a string of more than 7 characters and avoid using an underscore as the fourth character.

4.2 Overview of SAP Focused Run Software Stack

SAP HANA

Refer to chapter 4.3 *Check Installed SAP HANA Revision*

Kernel

Refer to chapter 4.7.4 *Update SAP Kernel*

SAP NetWeaver Application Server for ABAP Software Components

> **Note**
>
> Make sure that you follow the implementation recommendations provided in chapter 4.6 *Implementing SAP NetWeaver with SAP Focused Run Using Up-to-Date Installation Process*.

Component	Release	Tested Minimum SP Level	Component Description
SAP_BASIS	755	0004	SAP Basis Component
SAP_ABA	75F	0004	Cross-Application Component
SAP_GWFND	755	>= 0004	SAP Gateway Foundation
SAP_UI	755	0007	User Interface Technology
ST-PI	740	>= 0019	SAP Solution Tools Plug-In
SAP_BW	755	0004	SAP Business Warehouse
MDG_FND	805	0004	MDG Foundation
S4FND	105	0004	Foundation
FRUN	400	0000	SAP Focus RUN tool
ST-A/PI	01V_731	>=0000	Service tools for SAP Basis 731

> **Note**
>
> The actual SP level for SAP_GWFND will be calculated automatically by the Maintenance Planner when selecting the stack.
>
> You can always use the latest available SP of component ST-PI. For ST-A/PI, check also for the newest available version.

CA APM

The CA APM release 10.7 and 10.8 are supported. The recommended minimum version is 10.7 Service Pack 00 with Patch Level 3.

R server (Optional)

The R server component is only necessary if you want to use System Anomaly Prediction.

For more information, see the *SAP HANA R Integration Guide for System Anomaly Prediction* in the SAP Focused Run expert portal.

> **Note**
>
> The guide is currently valid for SuSe SLES and Red Hat only.

You can find details of how to set up System Anomaly Prediction in SAP Focused Run in the SAP Focused Run expert portal.

4.3 Check Installed SAP HANA Revision

An installed SAP HANA system is a prerequisite.

Make sure that you have implemented:

- SAP HANA 2.0 Revision 063.00 or higher (>=200.063.00)

You can check the version using one of the following tools:

- SAP HANA cockpit (https://help.sap.com/docs/SAP_HANA_COCKPIT?version=latest)
- SAP HANA studio (https://help.sap.com/viewer/6b94445c94ae495c83a19646e7c3fd56/2.0.03/en-US/bd23f2d8bb57101480b0eedc2bf5fcce.html)

For more information about the SAP HANA revision and maintenance strategy, see SAP Note 2378962.

4.4 Check and Prepare Your OS for SAP HANA

Ensure that the recommendations of SAP Note 2131662 - *Transparent Huge Pages (THP) on SAP HANA Servers* are applied to all SAP HANA database servers.

Also, to optimize the operating system environment for a high-performance environment, apply the parameters as described in SAP Note 2382421 - *Optimizing the Network Configuration on HANA- and OS-Level for SPS10 and Higher*.

4.5 Check and Adjust SAP HANA Parameters

On UNIX, check the number of logical cores or the number of cores per socket. Check this number as defined on your SAP HANA system, using the OS command `lscpu`, as explained here: https://help.sap.com/docs/HANA_SERVICE_CF/6a504812672d48ba865f4f4b268a881e/e4f1f44e636e4ad99298c319b20b17b8.html

Use these numbers to maintain the following SAP HANA parameters in the relevant files, as described here: https://help.sap.com/docs/SAP_HANA_PLATFORM/009e68bc5f3c440cb31823a3ec4bb95b/4b4d88980622427ab2d6ca8c05448166.html

Alternatively, use the *SAP HANA Administration Console* to adjust the following parameters by navigating to the *Configuration* tab:

```
global.ini
   [execution]
      default_statement_concurrency _limit = <number of logical cores on SAP HANA
      server / 2>
```

```
    max_concurrency_hint = <number must be lower or equal to the number of cores per
    socket>
[persistence]
    max_gc_parallelity = <number of logical cores on SAP HANA server / 2>
```

> **Note**
>
> If you change these values, a restart is necessary to apply changes.

4.6 Implementing SAP NetWeaver with SAP Focused Run Using Up-to-Date Installation Process

Using the up-to-date installation process, you can easily install your SAP S/4HANA FND 2020 SP04 system (on SAP HANA), including the necessary SAP Focused Run add-ons.

Plan the desired installation target by using the Maintenance Planner at https://apps.support.sap.com/sap/support/mp. Install the SAP NetWeaver Application Server for ABAP system along with a required support package stack and ABAP add-ons in one implementation execution.

You can find all details in the guide corresponding to your operating system, which you can find on the Software Logistics Tools page.

> **Note**
>
> For the database, select SAP HANA and for the technical stack, select ABAP.

During the installation of SAP Focused Run 4.0 SP00, do the following:

- Select *SAP S/4HANA FND 2020* with *Support Package 4*
- Choose *Install or maintain Add-on*
- Select *Focused Run 4.0 SP00*
  IMPORTANT NOTICE: On the screen *Select OS/DB dependent files*, select *User Interface Technology 755* (SAP_UI 755 SP07).
- Select your OS combination with SAP HANA database-dependent files. Follow current SAP NetWeaver installation instructions to download and install the system based on the files selected in the Maintenance Planner.

4.7 Post Installation of SAP NetWeaver Application Server for ABAP Server for SAP Focused Run Usage

4.7.1 Create Production Client

Before proceeding with the SAP Focused Run configuration, perform a client copy as described below. Detailed information about client copies is available at:

https://help.sap.com/viewer/4a368c163b08418890a406d413933ba7/7.5.6/en-US/4d7ce15219a00f88e10000000a42189b.html.

Activities

Create a new production client and perform a local client copy:

1. Log in to your SAP Focused Run ABAP system using client *000*.
2. Add the following profile parameter using transaction RZ10: `login/no_automatic_user_sapstar = 0`
3. Restart the SAP Focused Run ABAP instances.
4. Using transaction BD54, create a new *Logical System* for the client to be created: for example, FRUCLNT100, if your SAP Focused Run system ID is FRU and the new client is 100.
5. Create a new client (for example, *100*) using transaction SCC4 and select the previously created *Logical System*. Select *Client Role = Customizing.* (Otherwise, client copy is not possible later.)
6. Log out and log in to the created client with user **SAP*** and standard password **PASS**
7. Perform a copy into this new client, using transaction SCCL (or new SCCLN) and profile SAP_CUST, from source client *000*.

   > **Note**
   >
   > Make sure you select the SAP_CUST profile. If you select another profile, you cannot complete SAP Focused Run configuration (Business Partners creation).

1. If needed, create a ddic user in this new client (transaction SU01).
2. Finally, delete the profile parameter: `login/no_automatic_user_sapstar`
3. Change client role of the new client to *Production*.

   > **Note**
   >
   > Proceed with the next configuration activities, using this created production client. Make sure that you maintain the profile parameter `login/system_client`, as proposed in chapter 4.7.3 *Checking and Adjusting SAP NetWeaver Application Server for ABAP Profile Parameters*.

4.7.2 Create SAP Focused Run Administration User

Perform the initial configuration of your SAP Focused Run system with a user that has administrator privileges. Details are provided in the security guide. See the chapter *Roles for Setup Admin and Dev Support*.

4.7.3 Checking and Adjusting SAP NetWeaver Application Server for ABAP Profile Parameters

You can find information about how to maintain SAP NetWeaver Application Server for ABAP profile parameters at: https://help.sap.com/viewer/b17bd20044a44edb9aa7830ee52ffac3/7.5.9/en-US/5a860a509ece466ce10000000a423f68.html

Maintain the parameter names and values specified below by using transaction `RZ10`. These parameters are the minimum requirement for SAP Focused Run installation. All recommendations are valid for usage of zero administration memory management (SAP Note 2085980 - *New features in memory management as of Kernel Release 7.40*).

> **Note**
>
> The parameter recommendations are a starting point for a midsize SAP Focused Run installation. Based on your individual scenarios, larger scaling of the parametrization might be necessary.

Adjust the number of dialog and batch work processes on each ABAP instance. SAP recommends operating at least 50 DIA and 25 BTC work processes per instance. For further details about work process configuration, number of work processes, and dependencies, refer to SAP Notes 2190597, 39412, and 9942.

Finally, restart the SAP Focused Run system to apply any adjusted parameters.

Parameter	Recommendation	Comment
`icm/host_name_full`		Set to fully-qualified host name of the application server. See also http://help.sap.com/saphelp_nw70ehp2/helpdata/en/48/3c5d3df7e771b9e10000000a421937/frameset.htm
`icm/server_port_X`	Typical values: • `icm/server_port_0 = PROT=HTTPS, PORT=443, TIMEOUT=60, PROCTIMEOUT=300` • `icm/server_port_1 = PROT=HTTP, PORT=80, TIMEOUT=300, PROCTIMEOUT=300` • icm/server_port_2 = PROT=SMTP, PORT=25000, TIMEOUT=180	Set up one HTTP, HTTPS, and SMTP port.
`icm/max_conn`	`8000`	SAP Note 2007212

Parameter	Recommendation	Comment
icm/HTTP/logging_0	PREFIX=/, LOGFILE=icmhttph.log, FILTER=SAPSMD, LOGFORMAT=SAPSMD2, MAXSIZEKB=10240, FILEWRAP=on, SWITCHTF=month	For E2E Trace Upload, see the SAP Focused Run expert portal for details.
login/system_client	<production client number>	Provide the production client number. See chapter 4.7.1 *Create Production Client*.
login/create_sso2_ticket	2 or 3	Creation of SSO tickets Note: If you've completed the configuration as described in the master guide, and the transaction FRUN doesn't start the SAP Fiori launchpad in a web browser, consider reviewing this setting.
login/accept_sso2_ticket	1	Logon using SSO ticket
PHYS_MEMSIZE	>= 20480	SAP Note 2085980 The profile parameter PHYS_MEMSIZE determines how much of the entire main memory is to be used by the SAP system. The parameter is entered during system installation. The standard value for PHYS_MEMSIZE is the size of the main memory [RAM].
abap/shared_objects_size_MB	>=1025	
abap/buffersize	8000000	
rdisp/elem_per_queue	4000	
rdisp/max_wprun_time	3600	
rdisp/tm_max_no	>=8000	
rsdb/prefer_join_with_fda	1	Enable fast data access (FDA) for SAP HANA.
rsdb/ntab/entrycount	1500000	
rsdb/cua/buffersize	70000	
rsdb/obj/max_objects	80000	
rsdb/esm/buffersize_kb	8192	
rsdb/otr/max_objects	5000	
rsdb/otr/buffersize_kb	8192	
sap/bufdir_entries	15000	

Parameter	Recommendation	Comment
`zcsa/system_language`	E	Only English is supported as logon language for SAP Focused Run.
`zcsa/second_language`	E	
`http/security_context_cache_size`	`8000`	
`ssl/client_ciphersuites`	`918:PFS:HIGH::EC_P256:EC_HIGH`	You can find more details about `ciphersuites` in SAP Note 510007.

4.7.4 Update SAP Kernel

A kernel release 7.85 64-BIT UNICODE must be used. The kernel support package (or patch level) must be at least 127.

Always use the newest available Kernel Support Package, which should be automatically determined in the Maintenance Planner.

4.7.5 Set Up Communication with SAP's Support Backbone

In SAP Focused Run, data exchange with SAP Support Portal is used for system data and license management in the following two scenarios:

- All systems managed by SAP Focused Run belong to the same customer number or belong to customers of a single Customer Competence Center (CCC). In this case, set up a single connection for that customer or CCC, as described in the chapter *Single Connection for Communication with SAP's Support Backbone*.
- The systems managed by SAP Focused Run belong to multiple independent customers. In this case, the multiple connection setup should be performed as described in the chapter *Multiple Individual Connections for Each Customer for Communication with SAP's Support Backbone*. This setup should be performed for each customer number of the respective managed systems.

In addition, the new connection for downloading digitally-signed SAP Notes in the Note Assistant is created. (See SAP Note 2508268 for details.)

The prerequisite for both scenarios is that the task list `SAP_SUPPORT_HUB_CONFIG` has been executed completely.

4.7.5.1 Single Connection for Communication with SAP's Support Backbone

Activities

1. Execute the task list `SAP_SUPPORT_HUB_CONFIG` to set up the connectivity to SAP's support backbone.

   > **Note**
   >
   > The task list contains automatic and manual activities.

   - Log in to your SAP Focused Run ABAP system on the production client.
   - Start transaction `STC01`.
   - On the *Task Manager for Technical Configuration* screen, enter **`SAP_SUPPORT_HUB_CONFIG`** in the *Task List* field.
   - Choose *Generate Task List Run (F8).*
   - Read the documentation of every task carefully and execute the manual activities.
   - Choose *Start/Resume Task List Run in Dialog (or in Background)* to execute the automatic activities. Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.
2. (Optional) Use report `RCWB_SNOTE_DWNLD_PROC_CONFIG` to specify the RFC destination used by the Note Assistant. (See the attachment to SAP Note 2508268 for details.)

4.7.5.2 Multiple Individual Connections for Each Customer for Communication with SAP's Support Backbone

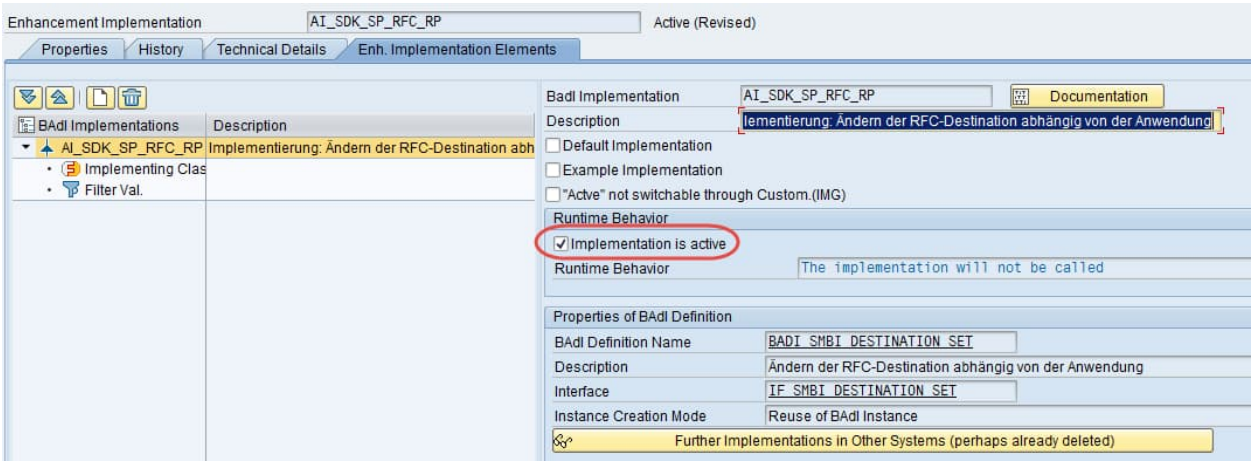
With SAP Focused Run 2.0 SP00, a new mass setup tool for multiple individual connections for each customer for communication with SAP support was introduced.

The Mass Maintenance application can be used with a CSV file upload. As separator, a semicolon is used instead of a comma.

To set up multiple connections, perform the following activities. (As a prerequisite, make sure that the task list `SAP_SUPPORT_HUB_CONFIG` has been executed as described above).

Activities

1. Activation of the multiple connection BAdI:
   - Log in to your SAP Focused Run ABAP system on the production client.
   - Start transaction `SE19`.
   - Choose enhancement implementation `AI_SDK_SP_RFC_RP`.
   - Edit the enhancement implementation and select the *Implementation is active* checkbox.



- If asked, provide the SSCR registration key for the object.
- Activate the enhancement implementation (as shown in the screenshot above).

2. Maintain all the customer numbers in view V_AISAPCUSTNOS via transaction SM30.
3. Call the new mass setup tool using the following URL:
   https://<frunhost full qualified>:<https port>/sap/bc/webdynpro/sap/wd_sise_var_conf_app?sap-language=EN
   The following communication channels for each customer can be set up:
   - Synchronous: destinations in format SM_SP_<customer number>_H

Asynchronous: logical ports in format SM_SP_<customer number>_H

- ParcelBox: destination in format SM_SP_<customer number>_G

4.7.6 Implementing SAP Notes

Always follow precisely the solutions documented in the SAP Notes listed under Prerequisites. Also, when implementing any automatic correction in your SAP Focused Run system, use transaction SNOTE, taking care of any manual activity mentioned and any subsequently referenced SAP Notes. (For further information about Note Assistant (transaction SNOTE), refer to https://help.sap.com/viewer/9d6aa238582042678952ab3b4aa5cc71/7.5.13/en-US/48b41a66fc096ff4e10000000a42189b.html)

Prerequisites

Make sure that you have implemented the latest version of SAP Note 1668882 for corrections of the Note Assistant before implementing the notes for FRUN.

Mandatory notes to apply:

- 3255599 – Release Information Note for SAP Focused Run 4.0 SP00
  Implement all collective notes mentioned in this central note.
- 2369401 – Release Information Note for Simple Diagnostics Agent

- 2090746 – WD ABAP: Unified Rendering Update with TCI - Instructions and Related SAP Notes (Focused Run)

> **Note**
>
> Implement the latest *Unified Rendering* relevant for the SAP_UI release that is installed on your system (expected release is 7.54), using the transport-based correction instruction (TCI). Remember to follow the documentation attached to SAP Note 2187425, providing details of the prerequisites and any required permission. If you need information about how to download and apply TCIs, refer to KBA 2498908.
> Make sure that user DDIC exists in the client where you start the TCI Import.

> **Caution**
>
> These SAP Notes are updated on a regular basis. They contain critical information that needs to be considered not only when initially implementing SAP Focused Run, but also when operating it.

5 Implementing SAP Focused Run 4.0 SP00

5.1.1 Preparing SAP NetWeaver Basic Operation

As part of the SAP NetWeaver installation procedure (see 4.6 *Implementing SAP NetWeaver with SAP Focused Run Using Up-to-Date Installation Process*), make sure that you have completed the relevant automated initial setup, using the task list `SAP_BASIS_SETUP_INITIAL_CONFIG`, in client *000*, as described in https://help.sap.com/doc/ec180e1ef0e8414896c13522d39f613f/1.0/en-US/Installation__Automated_Initial_SetupE.PDF .

> **Note**
>
> You can cross-check previous task list executions using transaction `STC02`.

Since SAP Focused Run applications generate a high volume of logs, ensure that proper housekeeping for the application logs is in place. SAP Note 195157 contains the required information about the steps needed to achieve this. For SAP Focused Run, it's enough to delete entries that are already due for deletion.

5.1.2 Configuring Access and Help for Web-Based Front-End Applications

SAP Focused Run offers in-app help for the end-user interfaces. We strongly recommend enabling this in-application help because it is the future-proof distribution channel for help in SAPUI5. The help texts and the help framework for the in-application help are loaded from SAP HANA Cloud by SAP Web Dispatcher when the latter receives an end-user request. This requires user requests for the SAP Fiori launchpad and all tiles to be sent to SAP Web Dispatcher. SAP NetWeaver Application Server for ABAP generates the needed URLs automatically with the parameters maintained in the table `HTTPURLLOC`. (See the *Configure HTTPURLLOC* subsection in chapter 5.1.2.5.)

To prepare SAP Web Dispatcher to load the help content and help framework, complete the following tasks:

1. Configure the SAP HANA Cloud URL in the profile of SAP Web Dispatcher: The dispatcher needs access to the Internet through a proxy.
2. Configure the rewriting rules to be applied for URLs in a dedicated file.
3. Set a parameter to allow the dispatcher to treat requested URLs correctly.
4. Import the SAP HANA Cloud server certificate into dispatcher: `SAPSSLC.PSE`
5. Configure the table `HTTPURLLOC`.

The following subsections provide details of how to complete these five tasks.

5.1.2.1 Configure the SAP HANA Cloud URL in the Profile of SAP Web Dispatcher

SAP Web Dispatcher needs access to the Internet through a proxy

The URLs to SAP HANA Cloud are set as selection criteria EXTSERV of parameter `wdisp/system`. You need to know the proxy host and port for accessing the Internet from the SAP Web Dispatcher host to set them as selection criteria PROXY.

The `wdisp/system_<Nr>` containing the SAP HANA Cloud URLs must be smaller than the `webdisp/system_<Nr>` of your FRUN system.
The selection criteria SID for the `wdisp/system_<X>` containing the SAP HANA Cloud URL should not exist.

Example:

> **Note**
>
> The FR0 and FR1 of `wdisp/system_0` and `wdisp/system_1` do not exist. The FRP is the real SID of SAP Focused Run. (Set it to the correct selection criteria values.) Also, the selection criterion `PROXY = proxy:8080` is an example. (Set your proxy host and port.)

```
# Back-end system configuration
wdisp/system_0 = SID=FR0, EXTSRV=https://cp.hana.ondemand.com, SRCURL=/sap/dfa/help/,
SRCSRV=*:*, PROXY=proxy:8080, STANDARD_COOKIE_FILTER=OFF
wdisp/system_1 = SID=FR1, EXTSRV=https://xray.hana.ondemand.com,
SRCURL=/resources/sap/dfa/help/, SRCSRV=*:*, PROXY= proxy:8080,
STANDARD_COOKIE_FILTER=OFF
wdisp/system_2 = SID=FRP, MSHOST=XXXX, MSPORT=8340, MSSPORT=XXXX, SSL_ENCRYPT=1,
SRCURL=/
```

5.1.2.2 Configure the Rewriting Rules to Be Applied for URLs in a Dedicated File

The parameter is `icm/HTTP/mod_<nr>`. You need to create a file `redirect.txt` in your profile directory.

Example:

```
icm/HTTP/mod_0 = PREFIX=/, FILE=$(DIR_PROFILE)/redirect.txt
```

The file `redirect.txt` contains rules to be applied for the modification of user requests. With the non-existing SID from above, it is as follows:

```
# User Assistance Content Platform - rewrite rule
if %{SID} = FR0
begin
SetHeader HOST cp.hana.ondemand.com
RegRewriteRawUrl ^/sap/dfa/help/(.*) /dps/$1
end
# Script Server - rewrite rule
if %{SID} = FR1
begin
SetHeader HOST xray.hana.ondemand.com
RegRewriteRawUrl ^/resources/sap/dfa/help/(.*) /xRayControls/resources/sap/dfa/help/$1
end
```

5.1.2.3 Set a Parameter to Allow SAP Web Dispatcher to Treat Requested URLs

Setting multiple `wdisp/system_<Nr>` may cause URL resolution conflicts. This issue can be resolved by setting the parameter as follows:

```
wdisp/system_conflict_resolution = 1
```

For system selections, refer to the following documentation: *SAP Web Dispatcher for Multiple Systems*.

The system selection is performed in the sequence of the `wdisp/system_<xx>` parameters (using the parameter index <xx>). As soon as the first system that matches the inbound request is found, the request is sent to this system. This is “first match” semantics.

5.1.2.4 Import the SAP HANA Cloud Server Certificate into SAP Web Dispatcher SAPSSLC.PSE

Best practice recommendation:

1. Open https://cp.hana.ondemand.com in your browser.
2. Export the server certificate of `*hana.ondemand.com` into a file.
3. Open SAP Web Dispatcher *Admin Webview*.
4. Navigate on the left to *PSE Management* under *SSL*.
5. Open the SAPSSLC and import the text from the certificate.

For further details, such as how to test the proper configuration, see *Configuring SAP Web Dispatcher for In-Application Help*.

5.1.2.5 Configure HTTPURLLOC

Make sure that all URLs generated by the SAP Focused Run system are using the hostname and port of SAP Web Dispatcher by editing the table HTTPURLLOC (via transaction SE16). More details are available here: *URL Generation in an AS-ABAP - Web Dispatcher Configuration*.
See below for typical entries in the table HTTPURLLOC:

- *MANDT:* **<Production client>**
- *SORT_KEY:* **0100**
- *PROTOCOL:* **HTTPS**
- *APPLICATION:* *****
- *HOST:* **<FQDN of SAP Web Dispatcher/Load Balancer>**
- *PORT:* **<HTTPS of SAP Web Dispatcher/Load Balancer>**

5.1.3 Set Up Load Balancing

In SAP Focused Run, you operate applications, including batch processing. At the same time, Web service calls consume extensive resources from the ABAP application servers. You must therefore implement a separation of the individual workloads. SAP NetWeaver Application Server for ABAP comes with various built-in load balancing mechanisms, which must be set up as explained in the following:

- *Logon Groups*: for distribution of dialog workload
  Dialog users can explicitly be directed to an individual server or logon group once they enter the system. Logon groups are defined in transaction `SMLG`.
- *Job Server Group* (maintained in ABAP transaction `SM61`): for distribution of batch workload background jobs
  To avoid resource conflicts, batch jobs can be scheduled using dedicated execution server groups via transaction `SM61`. On the job scheduling UI, the server group can be entered as *Execution Target*.
- *RFC Server Groups*: for distribution of parallel processing activities
  The execution of high-volume processing jobs is distributed via asynchronous RFC calls. The RFC server groups can be defined in transaction `RZ12`.

In SAP Focused Run, consider putting in place the following workload split:

- Dialog and occasional background processing (designated as Reoccurring load)
- Continuous high-frequency processing (designated as Continuous load)

Activities

Log in to your SAP Focused Run ABAP system on the production client and define the logon groups, job server groups, and RFC server groups on your SAP Focused Run system, using the abovementioned transactions with the following proposed values. This will split the load into two different groups of application servers.

Workload Types	*Application Server Instance*	*Logon Groups*	*Job Server Groups*	*RFC Server Groups*
Reoccurring load	`<Host1_SID_InstanceNb>` `[<Host2_SID_InstanceNb>]`	`PUBLIC`	`FRN_JOB_PUBLIC` `(*)`	`FRN_RFC_SDA` `FRN_RFC_SSI` `FRN_RFC_SRAF`
Continuous load	`<Host3_SID_InstanceNb>` `[<Host4_SID_InstanceNb>]`	`STREAMING`	`FRN_JOB_INBOUND`	`FRN_RFC_MAI` `FRN_RFC_CF`

(*) For all jobs scheduled manually later in this guide, use `FRN_JOB_PUBLIC` as execution target.

> **Note**
>
> High-frequency background jobs are automatically scheduled by the SAP Focused Run system.

For production usage of SAP Focused Run, we recommend providing at least two application server instances for each of the abovementioned workload types to ensure high availability of the processing resources for each. This means you operate a total of four application server instances.

To make sure you have all inbound data streaming ICF endpoints in SAP Focused Run, use the logon group *STREAMING* only. This can be achieved either in your hardware load balancer configuration or in SAP Web Dispatcher by assigning *STREAMING* to all ICF services mentioned as *Inbound data streaming channels* services in section 5.2.1 *Preparing the UI* Environment.

5.2 Configuration of SAP Focused Run Application Foundation

5.2.1 Preparing the UI Environment

> **Note**
>
> Beginning with SAP Focused Run 3.0 FP03, the setup of the UI environment has been split into two task lists:
>
> - `SAP_GW_FIORI_ERP_ONE_CLNT_SETUP` without variant (!) and
> - `SAP_FRUN_SETUP_USECASE` with variant `SAP&FRUN_INIT`

To enable the UI environment, execute task list `SAP_GW_FIORI_ERP_ONE_CLNT_SETUP` without variant.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction `STC01`.
3. On the *Task Manager for Technical Configuration* screen, enter **`SAP_GW_FIORI_ERP_ONE_CLNT_SETUP`** in the *Task List* field.
4. Choose *Generate Task List Run (F8)* .
5. Choose *Start/Resume Task List Run in Dialog (or in Background).*
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.
6. Choose *Back (F3)*.
7. On the *Task Manager for Technical Configuration* screen, enter **`SAP_FRUN_SETUP_USECASE`** in the *Task List* field.
8. Choose *Generate Task List Run with Variant (CTRL+F8).*
9. Choose the variant *SAP&FRUN_INIT*.
10. Choose *Start/Resume Task List Run in Dialog (or in Background).*
    Once the task list run has finished successfully, green lights appear in the status column. If errors are detected, perform an error analysis using the task documentation provided for each task.

Further details about this task list are available here:
https://help.sap.com/viewer/d71464d9f3204ea8be1144d62acd9ac3/7.52/en-US/bfd1b053a647e842e10000000a4450e5.html

> **Note**
>
> The OData and SICF services activated by this step are listed in the appendix in chapter 7.1.
>
> If some OData Services beginning with `/UI5...` are showing an error in the logs of the task list, activate these services manually with transaction `/IWFND/MAINT_SERVICE` as described in SAP Note 2635938.

If you re-execute the task list, and it stops at the activity *Customize Launchpad URL for Cache Buster*, apply SAP Note 2510134. Alternatively, deselect this activity and re-execute the task list. (The error message is wrong.)

If a dialog box appears and states that the variant uses an old task list version, exit generation of the task list run (first option). Then do the following:

- Choose *Display Variants.*
- Choose the abovementioned variant.
- In the next dialog box, choose *Migrate variant to task list structure* and choose Enter.
- Confirm all popups.
- Save the task list.
- After this, execute the task list.

The same procedure is also valid for other task lists if the same dialog box message appears.

5.2.2 Preparing Simple Diagnostics Agent Distribution

To distribute the Simple Diagnostics Agent (SDA) automatically to all hosts connected to SAP Focused Run, load the latest binaries of the OS specific Simple Diagnostics Agent and SAP JRE 8.1 into the SAP Focused Run central system.

Activities

1. Download the latest version of the binaries SDA (at least version 1.61 or higher must be installed and SAP JRE (Java Runtime Environment) from SAP Support Portal as follows:
   - Open the SAP software download center (https://launchpad.support.sap.com/#/softwarecenter)
     - Select the tab *Support Packages & Patches* and then the following:
     - *By Category*
     - *SAP Technology Components*
     - *Focused Run*
     - *Focused Run 4.0*
     - *Downloads*
     - *Comprised Software Component Versions*
   - Each time select the SDA and SAP JRE for the operating systems supported in the managed system landscape (and for the SAP Focused Run system).

     Currently, the following platforms are supported:
     - IBM AIX
     - HP-UX on IA64
     - Linux on Power BE & LE
     - Linux x86_64
     - Oracle Solaris SPARC

- Oracle Solaris x86
- Microsoft Windows Server on x86_64

2. Log in to your SAP Focused Run ABAP system on the production client.
3. Upload the binaries to SAP Focused Run by running the report SRSM_AMA_UPLOAD_BINARY with transaction SA38. Refer to the security guide section on report SRSM_AMA_UPLOAD_BINARY and ensure that virus scanning is activated. Then follow these steps:
   - Select *Single file*, choose *Execute (F8),* and in the dialog box that appears, select one of the relevant SDA or JRE files to be uploaded.
   - Or select *Multiple files*, choose *Execute (F8),* and in the dialog box that appears, select a folder that contains all the relevant SDA or JRE files to be uploaded.

After the upload of all files is finished, a complete list of all SDA and JRE versions uploaded to SAP Focused Run is displayed.

> **Note**
>
> When a new SDA version is released in SAP Support Portal, repeat the procedure for all operating systems relevant in your landscape. In addition, use the Agent Administration UI (available on the launchpad) to trigger an SDA update for already-installed SDAs. The current version of the binaries uploaded to your SAP Focused Run system can be determined by running the report SRSM_AMA_UPLOAD_BINARY and selecting the option *Display Content only*.

5.2.3 Creating Technical Users for Application Foundation

Before you continue with the next steps, refer to the security guide, chapter *Technical User Creation in Central SAP Focused Run* to create all required technical users on the SAP Focused Run system with the required roles:

- Template users (with names like TPL_FRN*)
- Background processing users (with names like FRN_BTC*)
- Technical user to authorize internal RFC calls: user FRN_IADM_SSI

> **Note**
>
> We recommend creating the technical users by following the naming conventions provided in the security guide.

Prerequisites:

Make sure that the newest SAP role definitions from SAP Note 3255673 have been uploaded to the production client. This note is included in the collective note 3255599.

There are two options for creating the technical users:

1. Manually:
   Use the information in the security guide to create the users and assign the necessary roles.
2. Use the task list SAP_FRUN_SETUP_FOUNDATION to create the proposed users and roles. See details in the next subsection.

5.2.3.1 Using Task List SAP_FRUN_SETUP_FOUNDATION

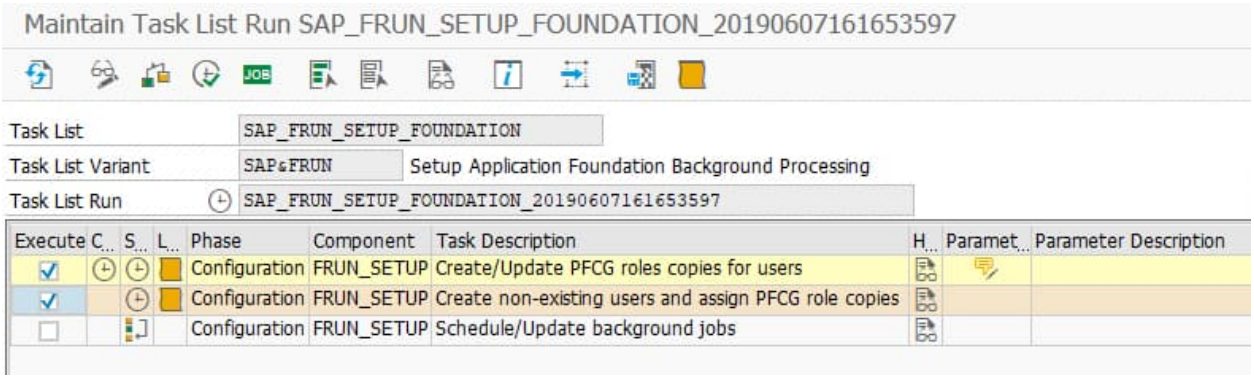
The task list SAP_FRUN_SETUP_FOUNDATION can be used for the following tasks:

- Creating the technical users
- Copying the relevant SAP roles into a dedicated customer namespace
- Adjusting missing authorization values in the roles in accordance with the security guide
- Generating the authorization profiles
- Assigning the new roles to the technical users

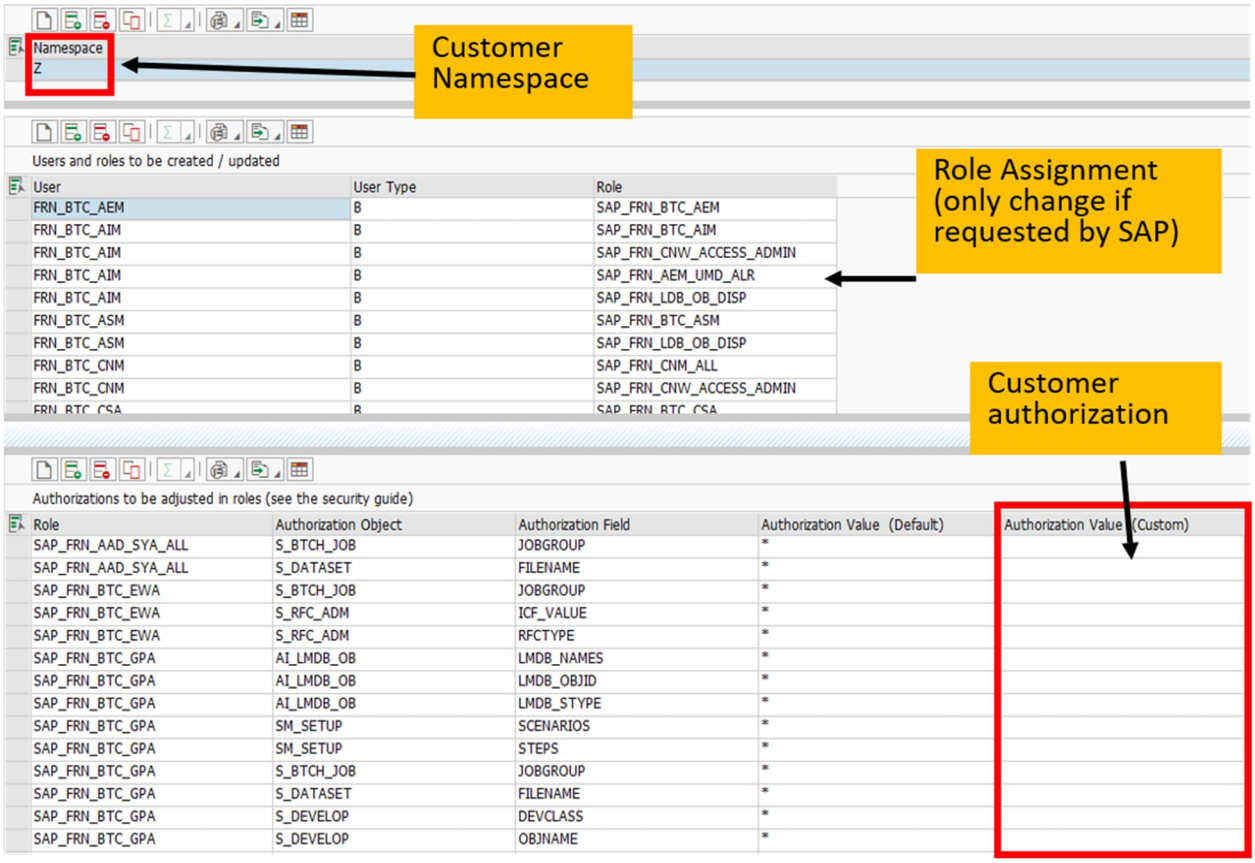
> **Note**
>
> If you use the task list with the default values, no additional adjustment for authorization values or role assignment needs to be done.
>
> Exception:
>
> Always check SAP Note 3255628 for missing/wrong entries in the task list. This note is included in the collective note 3255599.
>
> There are two options for changing the default values of missing authorizations in the newly-created roles:
>
> - Manually via transaction PFCG
> - Using the parameter section in the task list as described below

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction STC01.
3. On the *Task Manager for Technical Configuration* screen, enter **SAP_FRUN_SETUP_FOUNDATION** in the *Task List* field.
4. Choose *Generate Task List Run with Variant (CTRL+F8)*.
5. Choose the variant SAP&FRUN.
6. Select the checkboxes in the *Execute* column for the first two tasks:
   - *Create/Update PFCG roles copies for users*
   - *Create non-existing users and assign PFCG role copies*
7. Change default parameter settings. (Refer to SAP Note 3255628 for missing/wrong entries in the task list.)



8. Select the *Change Parameters* icon.
9. On the next screen, you can change the following:



   - Customer *Namespace* prefix (default value: Z)
   - Users and roles to be created: Only change entries here if they are documented in SAP Note 3127313.

   - *Authorization Value*: Default values are taken from the recommendation of the security guide. If you want to overwrite these values, refer to the security guide for possible values.
     Also check SAP Note 3255628 for missing/wrong values here.
10. Choose: *Back*.
11. Choose *Start/Resume Task List Run in Dialog (or in Background)*.

Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

> **Note**
>
> If you have changed the customer namespace, you must adjust the role `SAP_FRN_IADM_SSI_USER` for user `FRN_IADM_SSI` manually in transaction `PFCG`. Otherwise, creation of customer network will fail later. If you use the default values from the task list, no adjustment is necessary because the necessary field values (`ZSAP_FRN*`) are already included in the SAP standard role.
>
> Refer to the security guide, chapter *Technical User Creation in Central SAP Focused Run*:
>
> - Technical User to Authorize Internal RFC Calls: User `FRN_IADM_SSI`

5.2.4 Preparing Simple System Integration

5.2.4.1 Enabling User Management for Back Destination Users

For user management of communication users in SAP Focused Run, two different approaches are available.

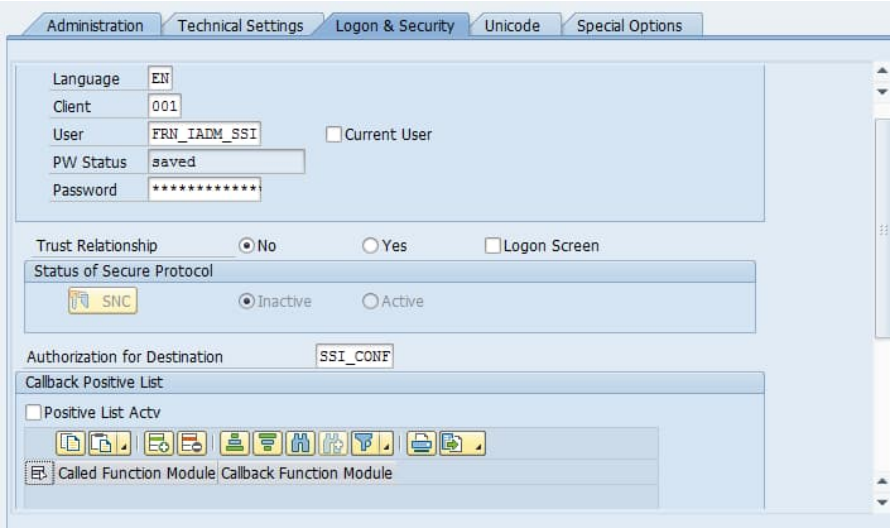
1. Integrate with a customer user management solution that handles the user creation and update process and provides SAP Focused Run with the active passwords for the relevant users only. Process all user handling and configuration in the user management solution and, in SAP Focused Run, use the BAdI enhancement spots for integration purposes.
2. If no appropriate user management solution is available, use the built-in SAP Focused Run solution in Simple System Integration (SSI).

In both cases, to prepare the user management, perform the following steps:

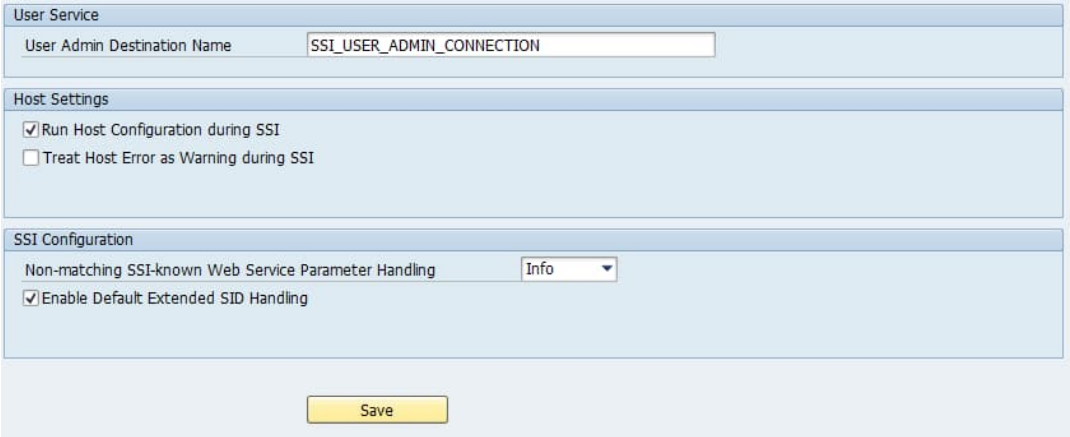
- If not already done, create the technical user `FRN_IADM_SSI` in the SAP Focused Run system. This user has privileges to create, change, and delete users. Refer to the security guide for further details.
- If you have created this user via the task list `SAP_FRUN_SETUP_FOUNDATION`, change the password via transaction `SU01`.
- Create the RFC destination `SSI_USER_ADMIN_CONNECTION` to the SAP Focused Run system, as described below. (Refer to the SAP NetWeaver operations guide for details about RFC destinations https://help.sap.com/viewer/753088fc00704d0a80e7fbd6803c8adb/7.5.13/en-US/488965b484b84e6fe10000000a421937.html.)
  - *Connection Type*: 3
  - *Target Host*: Leave this field empty.
  - *Language*: EN
  - *Client*: Provide SAP Focused Run production client.
  - *User*: *FRN_IADM_SSI*
  - *Password*: password of user `FRN_IADM_SSI`
  - *Authorization for Destination*: Provide the value **`SSI_CONF`** for this field.

  Note

  Only users that have a PFCG role with permission `S_RFC_ADM` can maintain this RFC destination.



- Using transaction SA38, execute report P_SSI_PREPARATION with the following parameters. Then choose *Save* as shown in the following screenshot.



Note

Selecting the option *Enable Default Extended SID Handling* causes SSI extended SID changes at certain LMDB events. Make sure you have understood the applied algorithm and the implications, which are documented in the SAP Focused Run expert portal.

5.2.5 Content Update

Ensure that the latest content is available in SAP Focused Run. To do so, perform the content update using report RCSU_MANUAL_UPLOAD, as described in SAP Note 2991255, each time new content is available.

5.2.6 Set Up Landscape Management Database

Activities

> **Note**
>
> SAP Focused Run includes an SAP CIM model and SAP CR content. The update of this SAP CIM model and CR content occurs at least every three months, provided transaction LMDB_SETUP is executed.

1. To install the delivered SAP CIM model and SAP CR content, start the Landscape Management Database (LMDB) setup using transaction LMDB_SETUP. This transaction offers two options:
   - Uncheck *Automatic* to import the delivered SAP CIM model and SAP CR content if not outdated.
     Prerequisites:
     - You do not have any content synchronization from SLD to LMDB: for example, namespace ACTIVE.
     - You have the authorization to administer all LMDB namespaces.
   - Use the import automation for the SAP CIM model and SAP CR content (check the import variant *Automatic*), which is activated by default. If you select this option, you schedule the job SAP_LMDB_DOWNLOAD_CONTENT to run periodically to download and import the latest content from SAP Support Portal.
     Prerequisites:
     - You do not have any content synchronization from SLD to LMDB: for example, namespace ACTIVE.
     - You have the authorization to administer all LMDB namespaces.
     - The FRN_BTC_LDB batch user has been created. (See the security guide at https://help.sap.com/viewer/p/FRUN.)
     - The SAP NetWeaver Download Service is configured; you have performed the activities described in SAP Note 2756210.
2. Choose *Execute* to start the import.
   This imports and syncs the SAP CIM model. SAP CR content is imported by the scheduled background job SAP_LMDB_IMPORT (for delivered content) or SAP_LMDB_DOWNLOAD_CONTENT (for import automation from SAP Support Portal).
3. Check the job log of this job, which runs for several hours. You do not need to wait until the job finishes. Check whether the job is running without errors for longer than 5 minutes before proceeding with the next configuration steps. If you encounter issues with the job SAP_LMDB_DOWNLOAD_CONTENT, see SAP Note 2771740.
   If the job aborts due to parallel system operations (like a system reboot), repeat the import process using transaction LMDB_SETUP.

If you want to update the content manually, as described in SAP Note 669669, use the report RLMDB_IMPORT_CONTENT.

> **Note**

If you are using the Tactical Dashboard application in Advanced Analytics & Intelligence, it is recommended to update the CR content automatically with the job SAP_LMDB_DOWNLOAD_CONTENT as the application always displays the actual CR content.

5.2.7 Adjusting SAP Focused Run Use Cases

Use cases can either be enabled globally or for a specific set of customer networks.

Prerequisite

The template users have been created, as recommended in the security guide.

Activities

1. Start the application *Global Settings & Network Configuration* in the *Infrastructure Administration* group on the SAP Focused Run launchpad.
2. If you plan to enable a set of use cases only for a set of customer networks, first navigate to the *Network Maintenance* page. Select the relevant *Customer Network*s one by one, and each time select the checkbox *Override Global Use-Case Settings*. Select the *expected use cases* to be enabled and choose *Save*.
3. Navigate to the *Global Settings* page and select the use cases you would like to enable for all customer networks for which no use-case-specific setting was made (see activity 2 above). Then choose *Save*. Confirm the following popup.

Troubleshooting

4. Use transaction `SLG1` and enter the object `AI_SSI` to see logs of background activities performed after adjusting the use case settings.

5.2.8 Local Network Setup

LMDB networks/namespaces are used to group all systems belonging to one logical network. As a prerequisite for all applications, the SAP Focused Run system must be known. Therefore, the abovementioned LMDB setup creates a default network and namespace, named `LOCALNETWORK/localnetwork`. This local network can be used for all use cases of SAP Focused Run where specific security or data separation requirements are not necessary.

Note

Handling of customer networks is similar to the local network. The specifics of the local network are as follows:

- LMDB network to represent the local network is created with the fixed name `LOCALNETWORK` when LMDB is initially set up.
- Communication from managed systems to the SAP Focused Run system does not require proxy or reverse proxy. Therefore, no admin request parameter (also known as inbound fencing string) is used for this specific network.
- Mandatory: The SAP Focused Run system has to be assigned to the LOCALNETWORK, not to other networks
- The configuration ID of the LOCALNETWORK will be created automatically with: (<CID>_<SID>).
  (<CID> = ID of the LOCALNETWORK, <SID>) = ID of the SAP Focused RUN system).
  See *Choose SAP Focused Run SID and Configuration ID* for details.

Activities

To be able to use the *LOCALNETWORK*, some additional input is required. To maintain the data, perform the following steps:

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start the application *Global Settings & Network Configuration* in the *Infrastructure Administration* group on the SAP Focused Run launchpad.
3. Go to the *Data Center Maintenance* tab and create an entry for the data center in which your SAP Focused Run system is located.
4. Go to the *Network Maintenance* tab and select network *LOCALNETWORK.*
5. Edit the network *LOCALNETWORK* and maintain the following values:
   - *Network Description*: meaningful description for the local admin network (such as Local Network)
   - *Customer ID*: 3-character CID for your SAP Focused Run system
   - *Data Center*: In the search help, choose the data center in which your SAP Focused Run system is located.
   - *Reverse Proxy Port Type:* Select HTTP or HTTPS, depending on your requirements.
   - *Reverse Proxy Host Name*: hostname of load balancer for your SAP Focused Run system
   - *Reverse Proxy Port Number*: port of HTTPS or HTTP load balancer for your SAP Focused Run system
   - *Password for sapadm*: Provide the unique password of the sapadm OS users. These sapadm OS users must all have the same password on all hosts running the SAP Focused Run system and the SAP HANA database.
   - *Other fields*: Leave unchanged. Admin request parameter and forward proxy details are not used for the local network.
   - Save your settings. (Choose *Save*.)
   - Activate the local network (choose *Activate*)
6. Finally, define the password of the following technical users once only. These users are generated by the SSI Configuration of the SAP Focused Run system.

   > **Note**
   >
   > Do not simply use transaction `SU01`. Refer to the security guide for additional details.

   - `FRN_LDDS_<CID>`
     User on the SAP Focused Run system to authenticate data suppliers sending SLD payloads directly to LMDB.
   - `FRN_LDSR_<CID>`
     User on the SAP Focused Run system to authenticate the SLDRs, which forward received SLD payloads.
   - `FRN_EWA_<CID>`

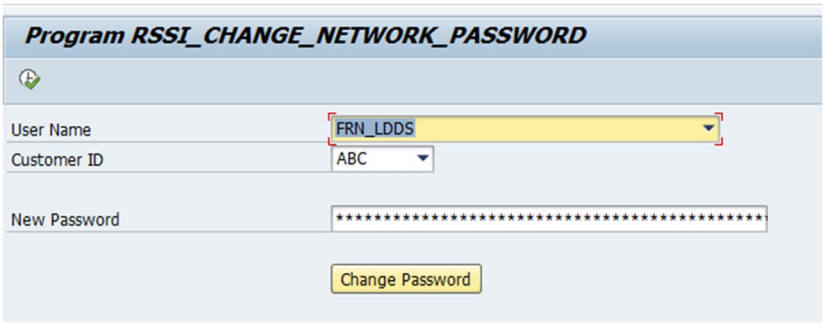
   Proceed as follow for the abovementioned users:

   - Start transaction `SA38`.
   - Run the program `RSSI_CHANGE_NETWORK_PASSWORD`.
   - Select the type of *User*.
   - Select the *Customer ID.*
   - Provide a *New password.*

Note

Be careful to avoid typos since you enter the password only once.

- Choose *Change Password.*



5.2.8.1 Creating Business Partner for Local Network

In SAP Focused Run, each customer network has a direct relationship to one business partner in the customer relationship role. For all systems registered in the local network, you must create such a business partner for this local network. In addition, the external identification for local network must be provided to allow a matching of maintained customer IDs (CIDs) with the corresponding business partners.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction `BP`.
3. Choose *Create Organization*.
4. In the *Create in BP role* field, select *Business Partner (Gen.)*.
5. On the *Address* tab, maintain the customer name in the *Name* field.
6. On the *Identification* tab, maintain the values for columns in the *Identification Numbers* table:
   - *IDType*: `FRUN01` (CID-Customer ID)
   - *Identification Number*: 3-character CID (as maintained in step *5.2.8 Local Network Setup*)
7. Choose *Save*.

5.2.8.2 Registering SAP Focused Run System in LMDB

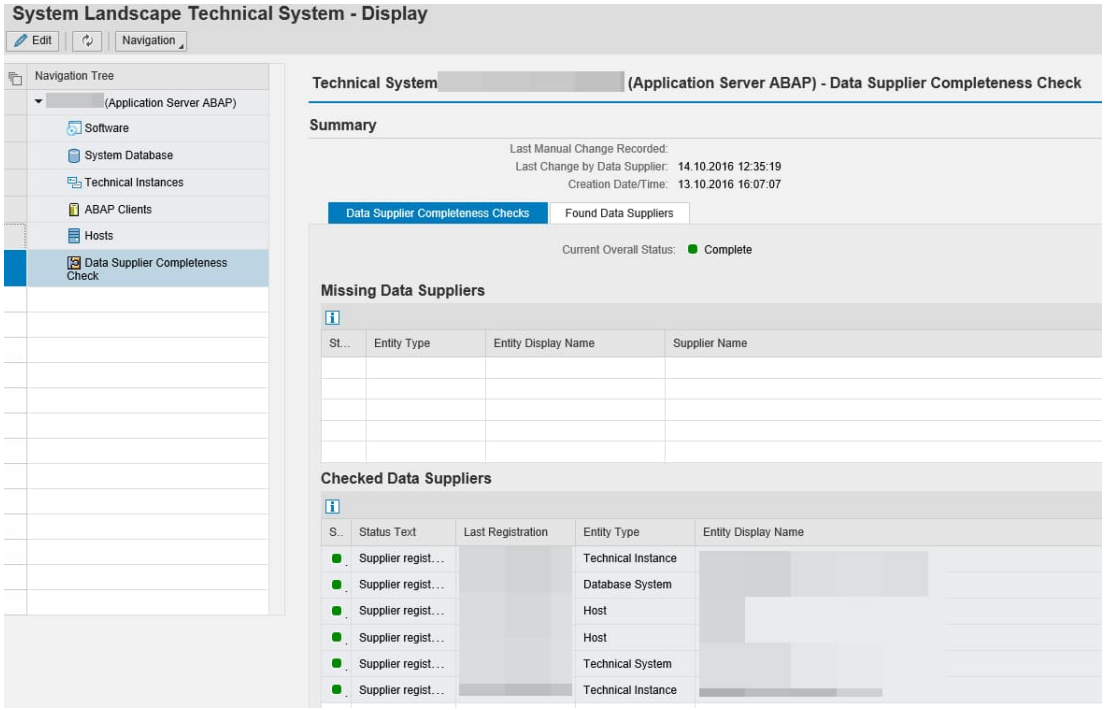
Send all relevant system, instance, host, and database data to the LMDB of your SAP Focused Run system.

Note

Remember to double-check the SAP Host Agent version.

1. To send data to the SAP Focused Run ABAP stack, maintain the SLD data supplier for the following (refer to *Preparing Managed Systems Guide* for detailed information):
   - ABAP (`RZ70`, use HTTP(s) destination): sending general system data
     See *Preparing Managed Systems Guide* for details.
   - `SAPStartSRV` (`sldreg`): sending data for technical instances
     See *Preparing Managed Systems Guide* for details.
   - SAP HANA (`sldreg` + HDBLCM): sending database information
     See *Preparing Databases Guide* for details.
2. Perform the outside discovery for all hosts of the SAP Focused Run system and the associated database, as described in the *Preparing Outside Discovery Guide*.
3. Open transaction `LMDB` and check the data supplier completeness for the SAP Focused Run ABAP system. Do not continue if the check is not successful (that is, if missing or outdated data suppliers are reported).

For troubleshooting, you can use report `RLMDB_DS_DISPLAY_TRACES`. (See SAP Note 2196245 for details.)



5.2.9 Set Up Background Processing for Communication with SAP's Support Backbone

Prerequisite

The task list `SAP_SUPPORT_HUB_CONFIG` has been executed. (See chapter: 4.7.5 *Set Up Connection with Communication with SAP's Support Backbone.*)

5.2.9.1 Background Processing for Single Connections

Schedule the following background jobs using transaction SM36. As *Target*, select the previously created Job Server Group FRN_JOB_PUBLIC.

> **Note**
>
> If you use the task list SAP_FRUN_SETUP_FOUNDATION to schedule the background jobs for application foundation (see next chapter), then these jobs are scheduled automatically. Otherwise, you must schedule them manually in transaction SM36.
> If you require system data that is available within your non-productive FRUN system, use transaction DNO_CUST04 and set the line UPLOAD_SYSDATA_GLOBAL_SETTING = **X**.

Job Name	*Define Step User*	*ABAP Program Name*	*Start Condition Start Time*	*Period Value*
SAP_FRN_SYNC_SUPPORT_PORTAL	FRN_BTC_SMP	AI_SC_REFRESH_READ_ONLY_DATA	Customer defined	Daily
SAP_FRN_SUPHUB_OUTBOX_PROCESS	FRN_BTC_SMP	AGS_SISE_SUPHUB_OUTBOX_PROCESS	Customer defined	Hourly

5.2.9.2 Background Jobs for Multiple Connections

Schedule the following background jobs using transaction SM36. As *Target*, select the previously created job server group FRN_JOB_PUBLIC.

> **Note**
>
> If you use the task list SAP_FRUN_SETUP_FOUNDATION to schedule the background jobs for application foundation (see next chapter), the first two jobs are scheduled automatically. Otherwise, you must schedule them manually in transaction SM36. The last job SAP_FRN_CUST_CONNECT_CHECK is only used in the multiple-connection scenario and must be scheduled manually.

Job Name	*Define Step User*	*ABAP Program Name*	*Start Condition Start Time*	*Period Value*
SAP_FRN_SYNC_SUPPORT_PORTAL	FRN_BTC_SMP	AI_SC_REFRESH_READ_ONLY_DATA	Customer defined	Daily
SAP_FRN_SUPHUB_OUTBOX_PROCESS	FRN_BTC_SMP	AGS_SISE_SUPHUB_OUTBOX_PROCESS	Customer defined	Hourly

Job Name	Define Step User	ABAP Program Name	Start Condition Start Time	Period Value
SAP_FRN_CUST_CONNECT_CHECK	FRN_BTC_SMP	SISE_VAR_CUST_CONNECT_CHECK	Customer defined	Daily

5.2.10 Set Up Application Foundation Background Processing

Job Name	Define Step User	ABAP Program Name	Start Condition Start Time	Period Value
SAP_FRN_WMM_TRIGGER	FRN_BTC_WMM	WMM_TRIGGER	Immediate	1 minute
SAP_FRN_CNM_NOTIFICATION	FRN_BTC_CNM	CNM_SCHEDULED_NOTIFICATION	Immediate	Hourly
SAP_FRN_AF_SCHEDULER	FRN_BTC_SRA	SRAF_SCHEDULER	Immediate	1 minute
SAP_FRN_WMM_CONSTITUENTS	FRN_BTC_WMM	WMM_GENERATE_CONSTITUENTS	0:10 a.m.	Daily
SAP_FRN_WMM_HOUSEKEEPING	FRN_BTC_WMM	WMM_HOUSEKEEPING	0:20 a.m.	Daily
SAP_FRN_COLLECT_USAGE_DATA	FRN_BTC_SMP	FRUN_USAGE_UPDATE	0:30 a.m.	Daily
SAP_FRN_LMDB_GENERIC_UPLOAD	FRN_BTC_SMP	RLMDB_UPLOAD_BACKGROUND	Immediate	Hourly
SAP_FRN_AF_HOUSEKEEPER	FRN_BTC_SRA	SRAF_LOG_HOUSEKEEPING	1:30 a.m.	Daily
SAP_FRN_CNM_SYNC_SYSTEM_USERS	FRN_BTC_CNM	CNM_SYNC_SYSTEM_USERS	2:00 a.m.	Daily
SAP_FRN_CUP_USAGE_EXTRACT	FRN_BTC_CUP	CUP_FRUN_EXTRACTION	1:00 a.m.	Daily

Schedule the following background jobs for application foundation using transaction SM36. As *Target*, select the previously-created job server group FRN_JOB_PUBLIC.

There are two options for scheduling these jobs:

- Manually: Use transaction SM36. As *Target*, select the previously-created job server group *FRN_JOB_PUBLIC*.
- Automatically via the task list SAP_FRUN_SETUP_FOUNDATION.(See description below.)

If you require system data that is available in your non-productive FRUN system, use transaction DNO_CUST04 and set the line UPLOAD_SYSDATA_GLOBAL_SETTING = X.

5.2.10.1 Using Task List SAP_FRUN_SETUP_FOUNDATION

The task list SAP_FRUN_SETUP_FOUNDATION can be used for the following:

- Scheduling the background jobs with their default values from the table in chapter 5.2.10.

> **Note**
>
> Before using task lists in FRUN to schedule background jobs, make sure that SAP Note 3211409 has been implemented. This note is included in the collective note 3255599.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction STC01.
3. On the *Task Manager for Technical Configuration* screen, enter **SAP_FRUN_SETUP_FOUNDATION** in the *Task List* field.
4. Choose *Generate Task List Run with Variant (CTRL+F8)*.
5. Choose the variant SAP&FRUN.
6. Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.
7. Choose *Start/Resume Task List Run in Dialog (or in Background)*.

Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

If jobs are not scheduled correctly or immediate jobs were not started, try to re-execute the task list. Otherwise, correct the jobs in transaction SM37.

> **Note**
>
> The task list automatically does the following:
>
> - Checks whether the background jobs are already scheduled and schedules only the missing ones
> - Starts the jobs that have the start time *Immediately*

5.2.11 Data Collection Framework and Alert Calculation

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Call setup transaction MAI_TOOLS.
3. Choose *Activate Expert Mode.*

Select *Administration* / *Maintain Configuration Parameters* and maintain the following set of parameter names and values:

- DIRDESTGRP: **FRN_RFC_MAI** (RFC group to be used by DIR for configuration)
- DIRMAXPERC: **20** (maximum percentage of available DIA WPs used by DIR)
- ECEDESTGRP: **FRN_RFC_MAI** (RFC group to be used by ECE for calculation)
- MAXWPSPERC: **40** (maximum percentage of available DIA WPs used by ECE)

4. Select *Administration* / *Schedule all MAI jobs with default variant.*
5. Activate the default work mode settings, run the report ACR_SET_DEFAULT_GLOBAL_WM once using transaction SA38.
6. Execute report REPT_AC_MAI_ACCOLLECTPASSGN using transaction SA38. (See SAP Note 2380644 for details.)

5.2.12 Activate System Monitoring for SAP Focused Run System

Background

You use *Simple System Integration (SSI)* to activate system monitoring on the managed system.

Launch the *Simple System Integration* tile in the *Infrastructure Administration* group on the SAP Focused Run launchpad. To ensure that the infrastructure can be used for central monitoring, execute the actions *Edit Configuration* and *Configure Automatically* in the *Simple System Integration* for your SAP Focused Run ABAP system.

Prerequisite

You have created the user SDAGENT with all roles, as described in the *Managed System Preparation Guide*.

Activities

1. Start the *Simple System Integration* application in the *Infrastructure Administration* group on the SAP Focused Run launchpad.
2. Search for the FRUN system.
3. Select the line with the FRUN system.
4. Choose *Edit Configuration*.
5. Provide user credentials for SDAGENT user on managed system.
6. Optional: Add other monitoring destinations and define a default destination.
7. Choose *Save*.
8. Select *Configure Automatically* to start the SSI.

5.2.13 Self-Monitoring

To configure self-monitoring, perform the following activities.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction `MAI_TOOLS`.
3. Choose *Activate Expert Mode*.
4. Select *Configuration* and *Configure Central Components*.

As a result, you see a message stating that the Self-Monitoring Scenario was configured successfully.

5.2.14 Configuring E-Mail and SMS Integration via SMTP

To configure the e-mail and (optional) SMS servers, refer to SAP Note 455140. Enter the name of the SMS server, using *Infrastructure Administration* -> *Central Notification Management* -> *Links* -> *Configure SMS Server*

5.2.15 Specify Background User for Automated Guided Procedure Processing

If you plan to schedule automated guided procedures in the background, either in the context of ASM (via Guided Procedure Planning Management), or AEM (alert reaction procedures), then specify the user name.
The expected user is `FRN_BTC_GPA`, or any other user with the required permissions.

Prerequisite

Make sure that user `FRN_BTC_GPA` or another user has been created with the roles assigned as described in the security guide. A valid e-mail address must be assigned to this user. This is required to automatically send out e-mails with guided procedure reports.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction `SA38`.
3. Execute the report `PR_CONF_GP_ARP_BTC`.
4. Keep the default proposed user `FRN_BTC_GPA` or overwrite `FRN_BTC_GPA` with the different user name if required.
5. Choose *Execute*.

6 Business Scenarios of SAP Focused Run

6.1 Application & System Monitoring

6.1.1 Preparing Use Case

To enable the UI environment specific to this use case, execute the task list SAP_FRUN_SETUP_USECASE with variant SAP&FRUN_ASM.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction STC01.
3. On the *Task Manager for Technical Configuration* screen, enter **SAP_FRUN_SETUP_USECASE** in the *Task List* field.
4. Choose *Generate Task List Run with Variant (CTRL+F8).*
5. Choose the variant SAP&FRUN_ASM.
6. (Optional) Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.

   This automatically schedules the background jobs for ASM. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via SM36.

   > **Note**
   >
   > The task list will not schedule the jobs for system anomaly prediction. Therefore, if you plan to configure system anomaly prediction, do the following:
   >
   > - Use the info given in the setup chapter 6.1.2.4 to schedule the jobs manually after the predictive analytics setup.

7. Choose *Start/Resume Task List Run in Dialog (or in Background).*
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

   > **Note**
   >
   > The OData and SICF services activated by this step are listed in the appendix chapter 7.1.

6.1.2 Set Up Application Specifics

6.1.2.1 SAP EarlyWatch Alert

Prerequisite

Before configuring SAP EarlyWatch Alert (EWA), the following prerequisites must be met:

- Minimum ST-PI 740 SP09 must be implemented in your SAP Focused Run system.
- On ABAP managed systems, the ST-PI 2008_1_7xx SP14, ST-PI 740 SP4, or higher, must be implemented.
- The role *IT Admin* in LMDB must be set to *Production System* for the relevant managed systems (technical system).
- On the FRUN system, Service Data Control Center (transaction SDCCN) must be activated as on a normal ABAP system. This is described in SAP Note 207223 section I. *Activating the EarlyWatch Alert*. You must make sure that the user controlling SDCCN (running the step of job /BDL/TASK_PROCESSOR) is user FRN_BTC_EWA. (This user is supplied with the FRUN-specific authorizations.)

Activities

Activate the processing of EWA data:

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction SDCCN.
3. Go to *Utilities* and choose *Activate.*
4. Click *Continue,* when asked whether SDCCN should be activated in local system.

6.1.2.2 Predictive Analytics Setup – Metric Forecasting

General Comment

Metric forecasting is part of system anomaly prediction and can also be used separately in the Metric Monitor.

Prerequisite

The predictive analytics for system analysis and system monitoring requires that you install the Application Function Library (AFL) and SAP HANA Automated Predictive Library (APL).

> **Note**
>
> In the SAP Help Portal documentation referenced in the following, always select your SAP HANA release from the dropdown on the portal page.

1. To install AFL, see the *SAP HANA Predictive Analysis Library (PAL) documentation*.
2. To install APL, see the *Installing SAP HANA APL* section in the *SAP HANA Automated Predictive Library Reference Guide*.
3. Roles and authorizations:
   The role SAP_FRN_APP_PAS_DISP contains the display authorizations for metric forecasting.

To check that the APL installation is working, refer to the *Checking the Installation* section in the *SAP HANA Automated Predictive Library Reference Guide*.

Activities for System Preparation

1. To enable the SQL script server, see the *Starting the SAP HANA ScriptServer* section in the *SAP HANA Automated Predictive Library Reference Guide.* Don't forget to choose your SAP HANA release.
2. Grant execution permissions to the user SAP<SID> for the APL functions by running in SAP HANA Studio or SAP HANA Console with a SYSTEM database user:
   - Grant AFL__SYS_AFL_APL_AREA_EXECUTE to SAP<SID>
   - Grant AFLPM_CREATOR_ERASER_EXECUTE to SAP<SID>
   - Replace SAP<SID> with the relevant value

Roles and Authorization:

The role SAP_FRN_APP_PAS_DISP contains the display authorizations for metric forecasting.

6.1.2.2.1 Configuration – Number of Forecast Points

For forecasting calculations, choose the number of days for which data is to be calculated. The data store is selected automatically: either the system monitoring data store, the system analysis aggregated store (if aggregation is enabled), or both based on the relevant application configuration. You can also enter the number of forecast points in various increments of minutes or hours. To configure this, use the SM30 view of PAS_SM_DP_CONFIG.

The default settings mentioned in the following are maintained automatically based on the granularity during preparation. When the forecast API is called for the first time, these values are entered automatically. They are not available by default before that.

MIN

- Number of days for which data is to be read from the System Monitoring data store: *5*
- Read from aggregation store: *No*
- Number of forecast points to be shown: *12*

5MIN

- Number of days for which data is to be read from the System Monitoring data store: *15*
- Read from aggregation store: *No*
- Number of forecast points to be shown: *6*

15MIN

- Number of days for which data is to be read from the System Monitoring data store: *15*
- Read from aggregation store: *No*
- Number of forecast points to be shown: *4*

1HOUR

- Number of days for which data is to be read from the System Monitoring data store: *30*
- Read from aggregation store: *Yes*
- Number of forecast points to be shown: *2*

DAY

- Number of days for which data is to be read from the System Monitoring data store: *30*
- Read from aggregation store: *Yes*
- Number of forecast points to be shown: *2*

6.1.2.2.2 Configuration – Exceptions to Algorithms

(Optional) Execute the report c by using transaction SE38. By default, APL is used as the algorithm. You can adjust the algorithm to FS (PAL's Forecast Smoothing) for metrics by saving the metric ID and hash metric path (if applicable). Maintain exceptions only if you want to use PAL's Forecast Smoothing. The default behavior is that all forecasts are performed using APL. The default algorithm is APL.

6.1.2.2.3 Configuration – Forecast Confidence

(Optional) Maintain `FORECAST_CONFIDENCE` by using the `SM30` view of `PAS_SM_GEN_CONFI` (confidence interval for APL auto regression algorithm). When the forecast API is called for the first time, the following parameter value is entered automatically. It is not available by default before that.

- Param Name: `FORECAST_CONFIDENCE`
- Param Count: *1*
- Param Value: *95*

> **Note**
>
> This option is applicable only for APL as of SAP Focused Run 1.0 SP00. The default value is 95%. The other acceptable values are 99 and 90.

6.1.2.2.4 Configuration – Handle Null Values

(Optional) Maintain `NULL_VALUE_EXIT_PC` using the `SM30` view of `PAS_SM_GEN_CONFI`: The percentage of null values acceptable for forecasting. If the percentage of null values exceeds this value, forecasting is aborted. When the forecast API is called for the first time, the following value is entered automatically. It is not available by default before that.

- Param Name: `NULL_VALUE_EXIT_PC`
- Param Count: *1*
- Param Value: *40*

Note

The default value is 40%.

6.1.2.3 Predictive Analytics Setup – System Anomaly Prediction (Optional)

Important Information

System anomaly prediction is a new optional SAP Focused Run feature in an early rollout phase.

When you prepare the Linux compilation environment for R with the various dependencies, you must install various SDK packages in your Linux environment. These SDK packages are usually not installed on server hosts running SAP software and therefore are not part of your standard repositories for Linux installations with distributions like SuSe SLES for SAP or Red Hat for Enterprise. You might need to register additional Linux software repositories on your designated R host.

We recommend preparing the compilation environment and the R runtime on dedicated hosts, following your company security policies.

Preparation

System anomaly prediction requires you to install R. For more information, see the *SAP HANA R Integration Guide for System Anomaly Prediction* in the SAP Focused Run expert portal.

Note

The guide is currently valid for SuSe SLES and Red Hat only.

6.1.2.3.1 Activities

You can find details of how to set up System Anomaly Prediction in SAP Focused Run in the SAP Focused Run expert portal.

6.1.2.4 System Analysis Setup

Configure the data aggregation for system analysis.

Activities

1. Start the application *System Analysis Configuration* via the SAP Focused Run launchpad or via the following URL: https://<host>:<port>/sap/bc/webdynpro/sap/sysana_config
2. When you first launch the application, you see a dialog box for creating an aggregation task for system analysis. Fill the dialog with appropriate values and choose *OK*. To review the task settings later, choose *Maintain Task* in the top right of the *System Analysis Configuration* screen.
   Example values:
   1. Choose *Schedule Period*
   2. *Collect from*: **02:00:00**
   3. *Schedule period* (in minutes): **1440**
   4. *Log store data* (in days): **5**
3. (Optional) Create a variant to activate aggregation of selected metrics for specific system types.

6.1.2.5 Job Monitoring – ABAP only

Note

With SAP Focused Run 4.0, Job Monitoring is no longer supported. The new Job & Application Monitoring application is now used for monitoring ABAP and other job types. To give you time for migration, Job Monitoring continues to work on 4.0 and is accessible via transaction `/noldjobmon`. For details of the migration process, see the corresponding documentation in the SAP Focused Run expert portal. After migration, you should delete your old job monitoring groups, which will stop data collection, and re-execute (that is, save) “Global Setting and Network Configuration”. Then execute report `REPT_AJM_CLEAN_UP_DATA` and delete all jobs with names `SAP_FRN_AJM_*` manually in transaction `SM37`.

6.1.2.6 Job & Automation Monitoring

Prerequisite

- Before using Job & Automation Monitoring, make sure that the SDA Version is 1.61 or higher on all hosts related to systems on which you want to do monitoring.

- The ST-PI version on managed systems must be at least 7.40 SP16. You need to implement SAP Note 3102288 in the managed system.

Activities on SAP Focused Run System

- Run the task list as described in the section Preparing Use Case.
- Schedule the following jobs as described in the section Background Jobs for ASM and AAM:
  - `SAP_FRN_JAM_DATA_COLLECTION`
  - `SAP_FRN_JAM_ALERT_CALC`
  - `SAP_FRN_JAM_REORG_DATA`
  - `SAP_FRN_JAM_AGGREGATION_CALC`
  - `SAP_FRN_JAM_AGGREGATION_HK`
  - Run the report *REPT_AJM_ADD_DATA_CONT_TABLE* to add metadata entries for the application.

For further setup and usage, refer to the Job & Automation Monitoring page in SAP Focused Run expert portal.

> **Note**

With SAP Focused Run 4.0, Job Monitoring is no longer supported. The new Job & Application Monitoring application is now used for monitoring ABAP and other job types. To give you time for migration, Job Monitoring continues to work on 4.0 and is accessible via transaction `/noldjobmon`. For details of the migration process, see the corresponding documentation in the SAP Focused Run expert portal. After migration, you should delete your old job monitoring groups, which will stop data collection, and re-execute (that is, save) “Global Setting and Network Configuration”. Then execute report `REPT_AJM_CLEAN_UP_DATA` and delete all jobs with names `SAP_FRN_AJM_*` manually in transaction `SM37`.

6.1.2.7 Health Monitoring

Prerequisite

- Make sure that SDA Version is 1.61 or higher on all agents that are assigned to collection groups in the Health Monitoring application.

- Please make sure that user FRN_BTC_ASM has been created with the roles assigned as described in the security guide.
  A valid e-mail address must be assigned to this user. This is required to send out e-mails automatically when an alert is created by the Health Monitoring app.
- For details of Health Monitoring refer to the SAP Focused Run expert portal.

Optional: Automatic Alert Confirmation

In the Alert and Event Management application, set the *Automatic Alert Confirmation* switch to ON for the *Health Monitoring* use case to confirm alerts in Health Monitoring automatically when you do one of the following:

- Change the Customer Network or the Additional Context of a metric
- Delete a metric

6.1.3 Background Jobs for Application & System Monitoring

Schedule the following background jobs using transaction SM36. As *Target,* select the previously-created Job Server Group FRN_JOB_PUBLIC.

Alternatively, you can use the task list SAP_FRUN_SETUP_USECASE for automatic scheduling. You do so as follows:

1. Execute the task list SAP_FRUN_SETUP_USECASE with the variant SAP&FRUN_ASM in transaction STC01.
2. Select the checkbox in the *Execute* column for the last task:
   Schedule/Update background jobs: This automatically schedules the background jobs for ASM. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via SM36.
3. Choose *Start/Resume Task List Run in Dialog (or in Background).*
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

Job Name	*Define Step User*	*ABAP Program Name*	*Start Condition Start Time*	*Period Value*
SAP_FRN_EWA_SEND_REPORT	FRN_BTC_EWA	FRUN_DOWNLOADS_REPORT	Immediate	Hourly
SAP_FRN_EWA_HOUSEKEEPING	FRN_BTC_EWA	FRUN_DELETE_SERVICE_DATA	11:00 p.m.	Weekly
SAP_FRN_LIC_DISTRIBUTION	FRN_BTC_SMP	RAGS_MAINT_KEY_COLLECTOR	01:30 a.m.	Daily
SAP_FRN_EWA_SCHEDULER	FRN_BTC_EWA	FRUN_EWA_SCHEDULER	00:30 a.m.	Daily
SAP_FRN_RCA_HOUSEKEEPER	FRN_BTC_ASM	RCA_HOUSEKEEPING	02:00 a.m.	Daily
SAP_FRN_SA_HOUSEKEEPER	FRN_BTC_ASM	WEA_AGG_STORE_PARTITIONING	02:30 a.m.	Daily
SAP_FRN_STATRAGG_HOUSEKEEPER	FRN_BTC_ASM	AI_STATRAGG_HOUSEKEEPING	03:00 a.m.	Daily

Job Name	*Define Step User*	*ABAP Program Name*	*Start Condition Start Time*	*Period Value*
SAP_FRN_SAM_UTILITY	FRN_BTC_SAM	SAM_CREATE_AP_CMP	03:30 a.m.	Daily
SAP_FRN_OCM_AGENTLOADBALANCE	FRN_BTC_ASM	ADMON_AGENT_LOAD_BALANCING	Immediate	5 minutes
SAP_FRN_OCM_EVENT_CALC	FRN_BTC_ASM	OCM_EVENT_CALCULATION	Immediate	1 minute
SAP_FRN_OCM_HOUSEKEEPING	FRN_BTC_ASM	OCM_HOUSEKEEPING	04:00 a.m.	Daily
SAP_FRN_JAM_DATA_COLLECTION	FRN_BTC_AJM	REPT_AJM_AGENT_FILE_DEFINITON	Immediate	5 minutes
SAP_FRN_JAM_ALERT_CALC	FRN_BTC_AJM	REPT_AJM_ALERT_CALCULATION	Immediate	1 minute
SAP_FRN_JAM_REORG_DATA	FRN_BTC_AJM	REPT_AJM_REORG_DATA	01:00 a.m.	Daily
SAP_FRN_JAM_AGGREGATION_CALC	FRN_BTC_AJM	REPT_JAM_AGGREGATION_BUILDING	Immediate	Hourly
SAP_FRN_JAM_AGGREGATION_HK	FRN_BTC_AJM	REPT_AJM_AGG_WEEKLY_PARTITION	Immediate	Weekly
SAP_FRN_GP_ASM_HK (1)	FRN_BTC_GPA	PR_AGS_SISE_DEL_INST_LOGS	05:00 a.m.	Daily

(1) Before scheduling this job, create a variant with the name **SAP&RUN_ASM** in transaction SA38 with the following values:

CONSUMER = **ASM**
DEL_TY = **INSTANCES**
RETEN_P = **<number of days until GP executions should be deleted>** (for example, **180**)

Then schedule the job with this variant.

> **Note**
>
> If you schedule the job with the task list, the variant will be created automatically with the default values.

6.2 User Monitoring

6.2.1 Preparing Use Case

Execute the task list SAP_FRUN_SETUP_USECASE with variant SAP&FRUN_AUM to enable the UI environment specific to this use case.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction STC01.
3. On the *Task Manager for Technical Configuration* screen, enter **SAP_FRUN_SETUP_USECASE** in the *Task List* field.
4. Choose *Generate Task List Run with Variant (CTRL+F8)*.
5. Choose the variant SAP&FRUN_AUM.
6. (Optional) Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.
7. This automatically schedules the background jobs for AUM. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via SM36.
8. Choose *Start/Resume Task List Run in Dialog (or in Background)*.
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

   Note

   The OData and SICF services activated by this step are listed in the appendix.

6.2.2 Real User Monitoring-Specific Setup Steps

Real User Monitoring table partitioning & batch job scheduling

- Check whether user FRN_BTC_RUM has been created in accordance with the security guide.
- Run the report /RUM/SETUP using transaction SA38 to initialize Real User Monitoring.

6.2.3 Synthetic User Monitoring-Specific Setup Steps

- Check whether user FRN_BTC_SUM has been created in accordance with the security guide (required for the new scheduling)
- Access the SUM infrastructure configuration with an administrator user (in other words, user with SAP_FRN_AAD_SUM_ALL role). Ensure the role was adjusted in accordance with the security guide.

6.2.4 Background Jobs for User Monitoring

Schedule the following background jobs using transaction SM36: As *Target,* select the previously-created Job Server Group FRN_JOB_PUBLIC.

Alternatively, you can use the task list SAP_FRUN_SETUP_USECASE for automatic scheduling:

1. Execute the task list SAP_FRUN_SETUP_USECASE with the variant SAP&FRUN_AUM in transaction STC01.
2. Select the checkbox in the *Execute* column for the last task:
   Schedule/Update background jobs: This automatically schedules the background jobs for AUM. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via SM36.
3. Choose *Start/Resume Task List Run in Dialog (or in Background).*
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

Job Name	*Define Step User*	*ABAP Program Name*	*Start Condition Start Time*	*Period Value*
SAP_FRN_TRACE_HK	FRN_BTC_TA	E2E_TRACE_DELETE	1:00 a.m.	Daily

6.3 Configuration & Security Analysis

6.3.1 Preparing Use Case

Execute the task list SAP_FRUN_SETUP_USECASE with variant SAP&FRUN_CSA to enable the UI environment specific to this use case.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction STC01.
3. On the *Task Manager for Technical Configuration* screen, enter **SAP_FRUN_SETUP_USECASE** in the *Task List* field.
4. Choose *Generate Task List Run with Variant (CTRL+F8)*.
5. Choose the variant SAP&FRUN_CSA.
6. (Optional) Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.
7. This automatically schedules the background jobs for CSA. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via SM36.
8. Choose *Start/Resume Task List Run in Dialog (or in Background)*.
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

> **Note**
>
> The OData and SICF services activated by this step are listed in the appendix.

6.3.2 Additional Configuration for Configuration Validation

Execute report `COF_SETUP` using transaction `SA38`.

6.4 Integration Monitoring

6.4.1 Preparing Use Case

Execute the task list `SAP_FRUN_SETUP_USECASE` with variant `SAP&FRUN_AIM` to enable the UI environment specific to this use case.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction `STC01`.
3. On the *Task Manager for Technical Configuration* screen, enter **`SAP_FRUN_SETUP_USECASE`** in the *Task List* field.
4. Choose *Generate Task List Run with Variant (CTRL+F8)*.
5. Choose the variant `SAP&FRUN_AIM`.
6. (Optional) Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.
7. This automatically schedules the background jobs for AIM. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via `SM36`.
8. Choose *Start/Resume Task List Run in Dialog (or in Background)*.
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

> **Note**
>
> The OData and SICF services activated by this step are listed in the appendix.

6.4.2 Background Jobs for Integration Monitoring

Schedule the following background jobs using transaction `SM36`. As *Target,* select the previously-created Job Server Group `FRN_JOB_PUBLIC`.

Alternatively, you can use the task list SAP_FRUN_SETUP_USECASE for automatic scheduling:

1. Execute the task list SAP_FRUN_SETUP_USECASE with the variant SAP&FRUN_AIM in transaction STC01.
2. Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.
   This automatically schedules the background jobs for AIM. (See the following table.)
   If you do not use this option, you must schedule the jobs manually via SM36.
3. Choose *Start/Resume Task List Run in Dialog (or in Background).*
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

Job Name	*Define Step User*	*ABAP Program Name*	*Start Condition Start Time*	*Period Value*
SAP_FRN_AIM_HOUSEKEEPING	FRN_BTC_AIM	/IMA/HOUSEKEEPING_NEW	1:00 a.m.	Daily
SAP_FRN_AIM_ALERTING	FRN_BTC_AIM	/IMA/ALERT_CALCULATION	Immediate	1 minute
SAP_FRN_AIM_AGGREGATION	FRN_BTC_AIM	/IMA/AGGREGATION	1:00 a.m.	Daily
SAP_FRN_EXM_FALLBACK_HK	FRN_BTC_AIM	EXM_REGULAR_HK	1:30 am	Daily

Note

Outdated Exception Monitoring metrics are deleted by a dedicated task, executed by the Expert Scheduler.

Therefore, crosscheck not only the operational status of the ABAP background job SAP_FRN_AIM_HOUSEKEEPING mentioned above, but also make sure the ExM housekeeping job task is running, using the launchpad: *Infrastructure Administration > Expert Scheduling Management Cockpit.*

6.5 Alert Management

6.5.1 Preparing Use Case

To enable the UI environment specific to this use case, execute the task list SAP_FRUN_SETUP_USECASE with variant SAP&FRUN_AEM.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.
2. Start transaction STC01.
3. On the *Task Manager for Technical Configuration* screen, enter **SAP_FRUN_SETUP_USECASE** in the *Task List* field.
4. Choose *Generate Task List Run with Variant (CTRL+F8)*.
5. Choose the variant SAP&FRUN_AEM.
6. (Optional) Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.
7. This automatically schedules the background jobs for AEM. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via SM36.
8. Choose *Start/Resume Task List Run in Dialog (or in Background)*.
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

   > **Note**
   >
   > The OData and SICF services activated by this step are listed in the appendix.

6.5.2 Background Jobs for Alert Management

Schedule the following background jobs using transaction SM36. As *Target,* select the previously-created job server group FRN_JOB_PUBLIC.

Alternatively, you can use the task list SAP_FRUN_SETUP_USECASE for automatic scheduling:

1. Execute the task list SAP_FRUN_SETUP_USECASE with the variant SAP&FRUN_AEM in transaction STC01.
2. Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.
   This automatically schedules the background jobs for AEM. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via SM36.
3. Choose *Start/Resume Task List Run in Dialog (or in Background).*
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

Job Name	*Define Step User*	*ABAP Program Name*	*Start Condition Start Time*	*Period Value*
SAP_FRN_AEM_METRIC_AGGREGATE_JOB	FRN_BTC_AEM	AEM_MAINTAIN_METRIC_AGGREGATE	0:00 a.m.	4 hours
SAP_FRN_AEM_HOUSEKEEPING	FRN_BTC_AEM	AEM_HOUSEKEEPING	1:00 a.m.	Daily
SAP_FRN_AEM_CORRELATION_ENGINE	FRN_BTC_AEM	AEM_CORRELATION_ENGINE	Immediate	1 hour
SAP_FRN_GP_AEM_HK (1)	FRN_BTC_GPA	PR_AGS_SISE_DEL_INST_LOGS	05:00 a.m.	Daily
SAP_FRN_AEM_SM_INCIDENT_PULL (2)	FRN_BTC_AEM	AEM_SM_INCIDENT_PULL	Immediate	15 minutes

(1) Before scheduling this job, create a variant with the name **SAP&RUN_AEM** in transaction SA38 with the following values:

CONSUMER = **AEM**
DEL_TY = **INSTANCES**
RETEN_P = **<number of days until GP executions should be deleted>** (for example, **180**)

Then schedule the job with this variant.

> **Note**
>
> If you schedule the job with the task list, the variant will be created automatically with the default values.

(2)

> **Note**
>
> This job is only needed when ITSM integration with SAP Focused Run is required. Therefore, it is not automatically scheduled via task list. If this job is needed, schedule it manually via transaction SM36.

6.6 Analytics & Intelligence

6.6.1 Preparing Use Case

Execute the task list SAP_FRUN_SETUP_USECASE with variant SAP&FRUN_AAI to enable the UI environment specific to this use case.

Activities

1. Log in to your SAP Focused Run ABAP system on the production client.

2. Start transaction STC01.
3. On the *Task Manager for Technical Configuration* screen, enter **SAP_FRUN_SETUP_USECASE** in the *Task List* field.
4. Choose *Generate Task List Run with Variant (CTRL+F8)*.
5. Choose the variant SAP&FRUN_AAI.
6. (Optional) Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.
7. This automatically schedules the background jobs for AAI. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via SM36.
8. Choose *Start/Resume Task List Run in Dialog (or in Background)*.
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

   > **Note**
   >
   > The OData and SICF services activated by this step are listed in the appendix.

6.6.2 Setup Application Specifics

If you are using the Tactical Dashboard application in Advanced Analytics & Intelligence, it is recommended to update the CR content automatically with the job SAP_LMDB_DOWNLOAD_CONTENT as the application always displays the actual CR content (see chapter: 5.2.6 *Set Up Landscape Management Database*)

6.6.3 Background Jobs for Analytics & Intelligence

Schedule the following background jobs using transaction SM36. As *Target,* select the previously-created Job Server Group FRN_JOB_PUBLIC.

Alternatively, you can use the task list SAP_FRUN_SETUP_USECASE for automatic scheduling:

1. Execute the task list SAP_FRUN_SETUP_USECASE with the variant SAP&FRUN_AAI in transaction STC01.
2. Select the checkbox in the *Execute* column for the task *Schedule/Update background jobs*.
   This automatically schedules the background jobs for AIM. (See relevant section below.)
   If you do not use this option, you must schedule the jobs manually via SM36.
3. Choose *Start/Resume Task List Run in Dialog (or in Background).*
   Once the task list run has finished successfully, green lights appear in the *Status* column. If errors are detected, perform an error analysis using the task documentation provided for each task.

Job Name	*Define Step User*	*ABAP Program Name*	*Start Condition Start Time*	*Period Value*
SAP_FRN_AAI_CALC	FRN_BTC_AAI	AAI_CALCULATION	10:00 p.m.	Daily

7 Appendix

7.1 OData and SICF Services Activated by STC01 Task Lists

7.1.1 SAP_FRUN_SETUP_USECASE with Variant SAP&FRUN_INIT

OData Services for SAP Focused Run Application Foundation

Application Area	OData Services
SAP Focused Run UI runtime	UI5LIB_SRV TECHMON_UI5_TABS_SRV LMDB_FILTERBAR_SRV LMDB_FILTERBAR_APP_SRV (relevant for support) SOLMAN_COMMONS_SRV TECHMON_UI5_LOCK_SRV
Self-Monitoring	SFM_STATUS_ODATA_SERVICE SFMDASHBOARD_SRV
Simple System Integration	SSI_CONFIGURATION_SRV
Advanced Event & Alert Management	ACC ALERTTICKER_SRSM_SRV AEMSCOPESELECTOR_SRV
Guided Procedures Framework	GPA_ODATA_DOC_SRV GPA_ODATA_SRV
IT Calendar & Work Mode Management	WMM_DATA_SRV IT_CALENDAR
Managed Object Specific Changes	MOSPECIFIC_SRV
Notification Management	CNM_SRV
Data Provider	FRN_FI_DP_SRV
EWA and Service Delivery	EWA_UI_ODATA_SRV
Landscape Management Database	LMDBDR_SRV LMDBREPORTING_SRV LMDBREPORTING_EXTENDEDFILTERBR_SRV
Monitoring Infrastructure	MAIUDMREPORTING_SRV

SICF Services for SAP Focused Run Application Foundation

Application Area	SICF Services
Web Dynpro Runtime	/sap/bc/webdynpro /sap/public/ping /sap/public/bc/ur /sap/public/bc/icons /sap/public/bc/icons_rtl /sap/public/bc/webicons /sap/public/bc/pictograms /sap/public/bc/webdynpro/mimes /sap/public/bc/webdynpro/ssr /sap/bc/webdynpro/sap/wdhc_help_center
Web GUI and NetWeaver services	/sap/bc/gui/sap/its/webgui /sap/public/myssocntl /sap/bc/srt/wsdl /sap/public/opu /sap/public/bc/uics /sap/public/bc/uics/whitelist
SAP Focused Run UI runtime	/sap/bc/ui5_ui5/sap/frunui5lib /sap/bc/bsp/sap/ai_tools_dnld /sap/bc/ui5_ui5/sap/lmdbfilterbar /sap/bc/ui5_ui5/sap/filterbardemo (relevant for support) /sap/bc/webdynpro/sap/urlapi_application_manager /sap/url/go /sap/bc/webdynpro/sap/documentation/ /sap/bc/ui5_ui5/sap/bsp_sise_rm_ui5 /sap/bc/ui5_ui5/sap/bsp_ags_ui5_doc /sap/bc/ui5_ui5/sap/frsh /sap/bc/apc/sap/sum
Landscape Management Database	/sap/bc/cim/ds /sap/bc/cim/cimom /sap/bc/cim/sync /sap/bc/webdynpro/sap/lmdb_simple_setup /sap/bc/webdynpro/sap/LMDB_WDA_EXPL_OIF /sap/bc/webdynpro/sap/LMDB_WDA_GENB_OIF /sap/bc/webdynpro/sap/LMDB_WDA_EXPL_HELP /sap/bc/webdynpro/sap/LMDB_FPM_OVP_COMPONENT /sap/bc/ui5_ui5/sap/lmdbreporting

Application Area	SICF Services
Simple System Integration	/sap/bc/webdynpro/sap/msc_ts_search_fpm_app /sap/bc/ui5_ui5/sap/ssi_config /sap/bc/webdynpro/sap/WD_SISE_DISPLAY_ARCH
Simple Diagnostics Agent	/sap/bc/webdynpro/sap/srsm_host_search_fpm_app /sap/bc/webdynpro/sap/srsm_agent_mass_update_app /sap/srsm_sda /sap/bc/ui5_ui5/sap/FS_BROWSER
Self-Monitoring	/sap/bc/ui5_ui5/sap/metric_moni_sfm /sap/bc/webdynpro/sap/solman_self_monitoring_app /sap/bc/ui5_ui5/sap/selfmondash
Inbound data streaming channels	/sap/srsm_mai/push_metrics /sap/bc/sdf/sdcc/ /sap/bc/rest/E2E_TA_COL /sap/bc/rest/cof /sap/bc/rest/statraggdatasrv /sap/frun/api
Monitoring Infrastructure	/sap/bc/webdynpro/sap/fpm_dpc_role_assignment /sap/bc/webdynpro/sap/wda_default_settings /sap/bc/webdynpro/sap/wda_config_wizard /sap/bc/webdynpro/sap/wda_consumer_variant /sap/bc/webdynpro/sap/wda_threshold_information /sap/bc/webdynpro/sap/wdc_transport_templates /sap/bc/webdynpro/sap/maintenance_tool /sap/bc/webdynpro/sap/wda_mai_rep_html /sap/bc/webdynpro/sap/WDA_AC_DIR_BROWSER /sap/bc/webdynpro/sap/wda_sise_update_content /sap/bc/webdynpro/sap/wda_mass_reconfiguration
Managed Object Specific Changes	/sap/bc/ui5_ui5/sap/mospecific
Advanced Event and Alert Management	/sap/bc/ui5_ui5/sap/alertdetail /sap/bc/ui5_ui5/sap/alertinboxapp /sap/bc/apc/sap/alert_ticker_srsm
Guided Procedures Framework	/sap/bc/webdynpro/sap/ags_gpa_browser /sap/bc/webdynpro/sap/ags_gpa_gp /sap/bc/webdynpro/sap/ags_gpa_logbook /sap/bc/webdynpro/sap/wd_sise_fwk_wizard /sap/bc/webdynpro/sap/ags_gpa_plugin_mngt /sap/bc/webdynpro/sap/AGS_GPA_PLANNING_MNGT

Application Area	SICF Services
	/sap/bc/bsp/sap/bsp_sise_chart /sap/bc/ui5_ui5/sap/bsp_sise_chart /sap/bc/bsp/sap/bsp_sise_gp_qcc /sap/bc/ui5_ui5/sap/bsp_sise_gp_qcc /sap/bc/bsp/sap/bsp_sise_plan /sap/bc/ui5_ui5/sap/bsp_sise_plan /sap/bc/bsp/sap/bsp_sise_exec /sap/bc/ui5_ui5/sap/bsp_sise_exec /sap/bc/bsp/sap/bsp_sise_cont /sap/bc/ui5_ui5/sap/bsp_sise_cont /sap/bc/bsp/sap/bsp_sise_gpc /sap/bc/ui5_ui5/sap/BSP_SISE_GPC /sap/bc/ui5_ui5/sap/BSP_SISE_GP_DOC /sap/bc/bsp/sap/bsp_sise_gp_doc /sap/bc/webdynpro/sap/AGS_GPA_DOCU /sap/bc/bsp/sap/bsp_gpc_csip /sap/bc/ui5_ui5/bsp_gpc_csip
IT Calendar & Work Mode Management	/sap/bc/ui5_ui5/sap/itcalendar /sap/bc/itcal_exp_templ /sap/bc/ui5_ui5/sap/workmode_app /sap/bc/apc/sap/work_mode
Notification Management	/sap/bc/ui5_ui5/sap/instant_notif /sap/bc/ui5_ui5/sap/cnm_repository /sap/bc/ui5_ui5/sap/notif_templ_app /sap/bc/ui5_ui5/sap/notif_config /sap/bc/ui5_ui5/sap/notif_schedule /sap/bc/ui5_ui5/sap/notif_rec_list /sap/bc/webdynpro/sap/dswp_na_grp_powl /sap/bc/webdynpro/sap/dswp_na_generic_notif /sap/bc/webdynpro/sap/dswp_na_configure_servers
Scheduling Management	/sap/bc/webdynpro/sap/wd_sraf_admin_portal
Tactical Dashboard	/sap/bc/bsp/sap/fitac /sap/bc/ui5_ui5/sap/ fitac
VAR Configuration	/sap/bc/webdynpro/sap/wd_sise_var_conf_app
EWA and Service Delivery	/sap/bc/bsp/sap/bsp_ewa_adm_ui /sap/bc/ui5_ui5/sap/bsp_ewa_adm_ui
Clickjacking Protection	/sap/public/bc/uics/whitelist

7.1.2 SAP_FRUN_SETUP_USECASE with Variant SAP&FRUN_ASM

OData Services for SAP Focused Run ASM and AAM

Application Area	OData Services
System Monitoring	MANUALTEMPLASS_EXTENDEDFILTERB_SRV MANUALTEMPLATEASSIGNMENT_SRV AI_SYSMON_SRV AI_SYSMON_OVERVIEW_SRV PLACEHOLDERMAINT_SRV MAICOMPARETOOL_SRV
Guided Procedure Content	FILTERING_RATING_APP_SRV GPCR_CSIP_APP_GW_SRV
Statistics Aggregate	STATRAGG_SRV
System Analysis	WEA_SRV SYA_SQL_SRV
System Anomaly Prediction	PAS_SA_VARIANT_SRV
Service Availability Management	SAM_SRV
Job & Automation Monitoring	AJM_RUNTIME_SRV AJM_SETUP_SRV AJM_SCOPE_SRV JM_SERVICE_SRV JM_ALERT_CALCULATION_SRV
Health Monitoring	ADMON_MONITORING_SRV

SICF Services for SAP Focused Run ASM and AAM

Application Area	SICF Services
Health Monitoring (formerly Open Component Monitoring)	/sap/bc/ui5_ui5/sap/advmon /sap/frun/ocm/metrics/v1 /sap/frun/ocm/monitoring/v1
Guided Procedure Content	/sap/bc/bsp/sap/frn_gpc_fwk_fr /sap/bc/ui5_ui5/sap/frn_gpc_fwk_fr
License Management	/sap/bc/webdynpro/sap/WD_AGS_MK_LIC_MNGT
Statistics Aggregate	/sap/bc/webdynpro/sap/wd_statragg_cockpit
System Analysis	/sap/bc/ui5_ui5/sap/wea /sap/bc/webdynpro/sap/sysana_config /sap/bc/rest/rcadataservice (Inbound data streaming channels)

Application Area	SICF Services
	/sap/bc/rest/rca_gs /sap/bc/webdynpro/sap/advmon
System Anomaly Prediction	/sap/bc/ui5_ui5/sap/PAS_APPL
Service Availability Management	/sap/bc/ui5_ui5/sap/sam_appl /sap/bc/sam_export
System Monitoring	/sap/bc/ui5_ui5/sap/sr_sysmon /sap/bc/ui5_ui5/sap/metricmonitor /sap/bc/webdynpro/sap/troubleshoot /sap/bc/bsp/sap/phmaintenance /sap/bc/ui5_ui5/sap/phmaintenance /sap/bc/bsp/sap/contentcompare /sap/bc/ui5_ui5/sap/contentcompare
Job & Automation Monitoring	/sap/bc/bsp/sap/ajm_ui /sap/bc/ui5_ui5/sap/ajm_ui /sap/bc/ui5_ui5/sap/jam_ui /sap/bc/rest/ ajmdataservice

7.1.3 SAP_FRUN_SETUP_USECASE with Variant SAP&FRUN_AUM

OData Services for SAP Focused Run AUM

Application Area	OData Services
Real User Monitoring	/RUM/UI5_SRV /RUM/CONFIG_SRV
Statistics Aggregate	STATRAGG_SRV
Synthetic User Monitoring	SUM_UI5_SRV SUM_API_SRV
Trace Analysis	E2E_TRACE_UI_SRV

SICF Services for SAP Focused Run AUM

Application Area	SICF Services
Real User Monitoring	/sap/bc/webdynpro/rum/WDA_COCKPIT /sap/bc/ui5_ui5/RUM/E2ERUM /sap/bc/webdynpro/rum/wd_alerting /sap/bc/rest/rumupload (Inbound data streaming channels) /sap/bc/rest/rumdataservice (Inbound data streaming channels)
Statistics Aggregate	/sap/bc/webdynpro/sap/wd_statragg_cockpit
Synthetic User Monitoring	/sap/bc/bsp/sap/sum_ui5 /sap/bc/rest/sumdataservice (Inbound data streaming channels) /sap/bc/ui5_ui5/sap/SUM_UI5 /sap/bc/webdynpro/sap/SUM_SELF_MONITORING /sap/bc/webdynpro/sap/WD_SUM_CONFIGURATION /sap/public/bc/webdynpro/Polling
Trace Analysis	/sap/bc/ui5_ui5/sap/trace /sap/bc/ui5_ui5/sap/tracejslib /sap/bc/ui5_ui5/sap/TraceExt /sap/srsm/E2E_trace_upl /sap/bc/sdf/E2E_Trace_upl

7.1.4 SAP_FRUN_SETUP_USECASE with Variant SAP&FRUN_AEM

OData Services for SAP Focused Run AEM

Application Area	OData Services
AEM Inbound Connector*	INBOUNDCONNECTOR
Alert Consumer Variants	ALERTCONSUMERVARIANT
AEM Configuration	AEMCONFIGURATION
AEM Incident Handling	AEM_EXTERNAL_INCIDENT_HANDLER

(*) The technical user who executes the AEM inbound connector OData service should have the role SAP_FRN_AEM_UMD_ALR.

SICF Services for SAP Focused Run AEM

Application Area	SICF Services
Event and Alert Management	/sap/bc/ui5_ui5/sap/alrtconsmvar /sap/bc/ui5_ui5/sap/aemconfig /sap/bc/ui5_ui5/sap/ags_gpa_browser

7.1.5 SAP_FRUN_SETUP_USECASE with Variant SAP&FRUN_CSA

OData Services for SAP Focused Run CSA

Application Area	OData Services
Configuration Validation	CONFIG_VALIDATION_SRV COF_ODATA_SRV COVA_POLICY_MANAGMENT_SRV

SICF Services for SAP Focused Run CSA

Application Area	SICF Services
Configuration Validation	/sap/bc/ui5_ui5/sap/srsm_config_val /sap/bc/ui5_ui5/sap/cof_admin_comp /sap/bc/ui5_ui5/sap/csa_policy_mgm

7.1.6 SAP_FRUN_SETUP_USECASE with Variant SAP&FRUN_AIM

OData Services for SAP Focused Run AIM

Application Area	OData Services
Integration Monitoring	/IMA/UI5_SRV /IMA/ANALYTICS_SRV S2C_UI_SRV ANALYTICS_SRV
Exception Monitoring	EXM_UI_SRV

SICF Services for SAP Focused Run AIM

Application Area	SICF Services

Integration Monitoring	`/sap/bc/ui5_ui5/ima/app`
	`/sap/bc/rest/aimdataservice (Inbound data streaming channels)`
	`/sap/bc/ui5_ui5/sap/ai_csm_ui`
	`/sap/bc/apc/ima/message_tracking`

7.1.7 SAP FRUN_SETUP_USECASE with Variant SAP&FRUN_AAI

OData Services for SAP Focused Run AAI

Application Area	OData Services

FITAC Scenarios	`ADMON_MONITORING_SRV`
	`SUM_API_SRV`
	`/RUM/UI5_SRV`

SICF Services for SAP Focused Run AAI

Application Area	SICF Services

Dashboard	`/sap/bc/bsp/sap/fiocc`
	`/sap/bc/ui5_ui5/sap/fiocc`
	`/sap/bc/bsp/sap/fiope`
	`/sap/bc/ui5_ui5/sap/fiope`
	`/sap/frun/fi/dp (1)`

(1) The service `/sap/frun/fi/dp` is not automatically activated via tasklist. This optional service is used for the `FRUN AAI REST` interface (available since SAP Focused Run 3.0 FP01) and provides external access to the ALM Grafana Plugin (or generic third-party analytic tools) for most of the SAP Focused Run metrics.
For details, refer to the SAP Focused Run expert portal page.

7.2 Automatically-Scheduled Background Jobs

During setup and configuration of SAP Focused Run, some jobs are automatically scheduled. Some of them are periodic jobs; some are event-based. The following tables list of these jobs for reference.

Note: Some jobs are started as Daemon jobs. This means that they are restarted automatically after a specific period.

Jobs scheduled by report COF_SETUP:

Job Name	*Step User*	*ABAP Program Name*	*Frequency Period Value*	*Daemon*
CF_COLLECTOR_PER_EVT	FRN_BTC_CSA	COF_COLLECTOR_PER_EVT	15 min	
CF_FRUN_MANDT<CLT>_<NNN>	FRN_BTC_CSA	COF_COLLECTOR	Event Based	X
CF_IQR	FRN_BTC_CSA	COF_IQR	Event Based	X
CF_TASKCTRL_PER	FRN_BTC_CSA	COF_TASK_CONTROLLER	60 min	
CF_TASKCTRL_EVT	FRN_BTC_CSA	COF_TASK_CONTROLLER	Event Based	

Jobs scheduled by Transaction MAI_TOOLS:

Job Name	*Step User*	*ABAP Program Name*	*Frequency Period Value*	*Daemon*
SAP_MAI_UDM_STORE_CARETAKER	FRN_BTC_MAI	MAI_UDM_AGILE_CARETAKER	1 h	
SAP_MAI_UDM_STORE_PARTITIONING	FRN_BTC_MAI	MAI_UDM_STORE_PARTITIONING	3 h	
SAP_ALERT_CALCULATION_ENGINE	FRN_BTC_MAI	ACE_CALCULATION_CONTROLLER	1 min	
SRSM_AMA_SELFMON_HEARTBEAT	FRN_BTC_MAI	SRSM_AMA_SELFMON_HEARTBEAT	1 min	
SRSM_AMA_SELFMON_CONFIG	FRN_BTC_MAI	SRSM_AMA_SELFMON_CONFIG	5 min	
SRSM_AMA_SELFMON_ERRORS	FRN_BTC_MAI	SRSM_AMA_SELFMON_ERRORS	5 min	
SAP_LMDB_SELFMON	FRN_BTC_MAI	RLMDB_SELF_MON	12 h	
SAP_MAI_DATA_COLLECTION_TRIGGER	FRN_BTC_MAI	MAI_DATA_COLLECTION_TRIGGER	5 min	

Jobs scheduled by Transaction LMDB_SETUP:

Job Name	Step User	ABAP Program Name	Frequency Period Value	Daemon
SAP_LMDB_NTFC_PACEMAKER	FRN_BTC_LDB	RLMDB_NTFC_PACEMAKER	1 h	
SAP_LMDB_SELFMON	FRN_BTC_MAI	RLMDB_SELF_MON	12 h	
SAP_LMDB_NOTIFY_DISPATCHER	FRN_BTC_LDB	RLMDB_NTFC_DISPATCH	Triggered by system, depending on number of changes	
SAP_LMDB_NOTIFY_<Consumer Short ID> (each notification consumer has specific job)	FRN_BTC_LDB	RLMDB_NTFC_CONSUMER_TRIGGER	Triggered by job SAP_LMDB_NOTIFY_DISPATCHER	
SAP_LMDB_LDB_<numeric ID> (only if CR content is applied via SLD)	FRN_BTC_LDB	AI_LMDB_R_SYNC_RUNNER	10 min	
SAP_LMDB_IMPORT (only if CR content is applied via LMDB)	FRN_BTC_LDB	RLMDB_IMPORT_EXECUTOR	Approx. 4 weeks	

Jobs scheduled by report /RUM/SETUP

Job Name	Step User	ABAP Program Name	Frequency Period Value	Daemon
/RUM/HOUSEKEEPING	FRN_BTC_RUM	/RUM/HOUSEKEEPING	24 h	
/RUM/ALERT_CALCULATION	FRN_BTC_RUM	/RUM/ALERT_CALCULATION	1 min	

Jobs scheduled by SUM Infrastructure configuration

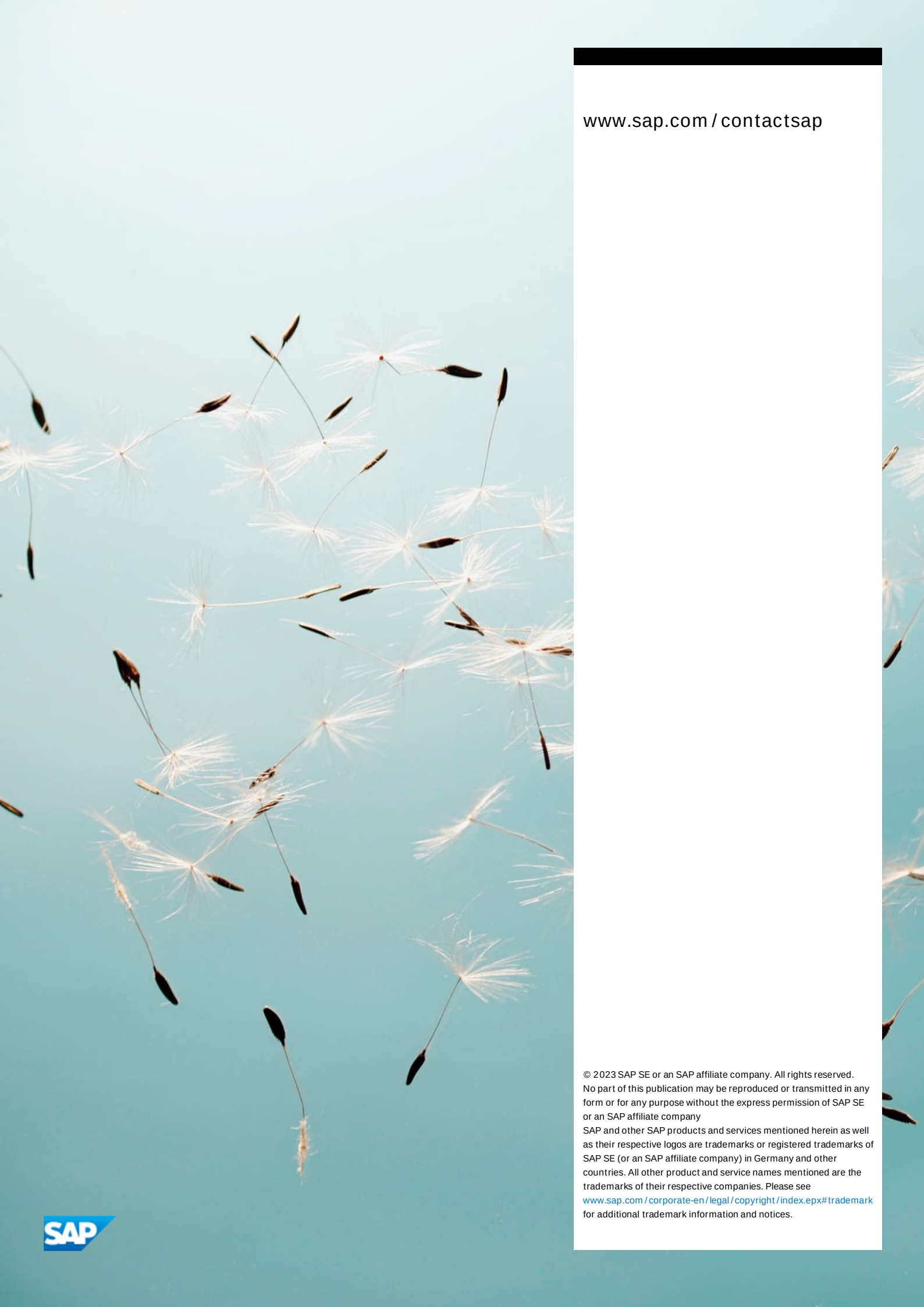
Job Name	Step User	ABAP Program Name	Frequency Period Value	Daemon
SAP_FRN_SUM_HOUSEKEEPING	FRN_BTC_SUM	SUM_HOUSEKEEPING	24 h	
SAP_FRN_SUM_ALERTING	FRN_BTC_SUM	SUM_ALERTING	1 min	

Jobs scheduled automatically by job FRN_RCA_HOUSEKEEPING (report RCA_HOUSEKEEPING) only when necessary:

Job Name	*Step User*	*ABAP Program Name*	*Frequency Period Value*	*Daemon*
SAP_FRN_RCA_HANA_STATEMENT_SYNC	FRN_BTC_ASM	RCA_HANA_STATEMENT_SYNC	1 h	

Jobs scheduled by SDCCN activation

Job Name	*Step User*	*ABAP Program Name*	*Frequency Period Value*	*Daemon*
/BDL/TASK_PROCESSOR	<activation user>	/BDL/TASK_SCHEDULER	1 h	



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