TABLE OF CONTENTS

INTRODUCTION..................................................................................................................................................4
VALIDITY..............................................................................................................................................................4
REPORTING AN INCIDENT.....................................................................................................................................4
DOCUMENT HISTORY..............................................................................................................................................5
WEB SERVICE OPERATIONS ...................................................................................................................................6
SETUP THE SSI_REMOTE WEB SERVICE ..........................................................................................................6
EXAMPLES (ZIP)..................................................................................................................................................7
WEB SERVICE OPERATION CUSTOMER_NETWORK_INITIALIZE ..............................................................................9
Request Properties ..............................................................................................................................................9
Request Template..............................................................................................................................................11
WEB SERVICE OPERATION CUSTOMER_NETWORK_ACTIVATE ...............................................................................14
Request Properties ............................................................................................................................................14
Request Template............................................................................................................................................14
SUPPORTED TECHNICAL SYSTEM TYPES .........................................................................................................16
UNSupported TECHNICAL SYSTEM TYPES ......................................................................................................16
PROPERTY NAMING CONVENTIONS.....................................................................................................................19
Supported Properties and Keys to Identify a Technical System .................................................................19
EXTENDED_SYSTEM_ID based identification key...........................................................................................20
SYSTEM_ID based identification key for ABAP, JAVA, HANADB, LIVE_CACHE, MDM, WEBDISP .........................20
SYSTEM_ID / HOST_NAME based identification key for remaining SYSTEM_TYPE_ID’s .....................................20
Request Properties ............................................................................................................................................21
Request Template............................................................................................................................................21
INTRODUCTION
The primary use case for the web services described in this document, is to allow for externally orchestrated Simple System Integration (SSI), via tooling capable of performing HTTP requests.

This document explains how to setup and use the SSI web service operations. The properties for each operation and their examples are provided.

VALIDITY
This document is valid for the product: Focused Run for SAP Solution Manager, with version >= Focused Run 1.0 FP2. Software component FRUN should be installed on the ABAP system.

REPORTING AN INCIDENT
If you encounter problems with the web services described in this document, please report an incident on component: SV-FRN-INF-SSI
<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-Feb-2018</td>
<td>001</td>
<td>Initial Version</td>
</tr>
<tr>
<td>14-Mar-2018</td>
<td>002</td>
<td>Added sections:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Examples (ZIP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Unsupported Technical System Types Properties per System Type</td>
</tr>
<tr>
<td>15-Mar-2018</td>
<td>003</td>
<td>Added sections:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Validity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Reporting an Incident</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Document History</td>
</tr>
<tr>
<td>02-May-2018</td>
<td>004</td>
<td>Added sections:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- CUSTOMER_NETWORK_INITIALIZE CUSTOMER_NETWORK_ACTIVATE</td>
</tr>
<tr>
<td>09-May-2018</td>
<td>005</td>
<td>Updated section TECHNICAL_SYSTEM_SET_PROPERTIES:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Add information on ABAP-only property COMMUNICATION_MODE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Add sub-section ”ABAP COMMUNICATION_MODE Property”</td>
</tr>
<tr>
<td>15-Jun-2018</td>
<td>006</td>
<td>Updated section “Supported Properties and Keys to Identify a Technical System”, especially the details on the HOST_NAME property.</td>
</tr>
<tr>
<td>16-Nov-2018</td>
<td>007</td>
<td>Updated section “Supported Technical System Types”, documented support for SAP liveCache.</td>
</tr>
<tr>
<td>28-Mar-2019</td>
<td>008</td>
<td>Added section TECHNICAL_SYSTEM_PERFORM_CLEANUP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marked TECHNICAL_SYSTEM_CLEANUP as deprecated</td>
</tr>
<tr>
<td>01-Nov-2019</td>
<td>009</td>
<td>Update section TECHNICAL_SYSTEM_SET_PROPERTIES:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Add information on ABAP-only properties: LOGON_GROUP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Update section SUPPORTED TECHNICAL SYSTEM TYPES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Added MS IIS 10.0 Replaced all instances of TECHNICAL_SYSTEM_CLEANUP_PERFORM with TECHNICAL_SYSTEM_PERFORM_CLEANUP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Added Introscope Enterprise Manager types</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Update section WEB SERVICE OPERATION CUSTOMER_NETWORK_INITIALIZ</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Updated DATA_CENTER_ID property</td>
</tr>
<tr>
<td>Web Service Operation Name</td>
<td>Web Service Operation Description</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>CUSTOMER_NETWORK_INITIALIZE</td>
<td>Sets the configuration properties for the customer network to be configured</td>
<td></td>
</tr>
<tr>
<td>CUSTOMER_NETWORK_ACTIVATE</td>
<td>Activates the customer network and creates the relevant technical users and the associated namespace</td>
<td></td>
</tr>
<tr>
<td>TECHNICAL_SYSTEM_SET_EXTENDED_SYSTEM_ID</td>
<td>Sets the extended system ID for the provided technical system</td>
<td></td>
</tr>
<tr>
<td>TECHNICAL_SYSTEM_SET_PROPERTIES</td>
<td>Used to specify the relevant configuration properties for the technical system to be configured</td>
<td></td>
</tr>
<tr>
<td>TECHNICAL_SYSTEM_GET_PROPERTIES</td>
<td>Returns properties for the specified technical system</td>
<td></td>
</tr>
<tr>
<td>TECHNICAL_SYSTEM_ESTABLISH_PREREQUISITES</td>
<td>Checks and establishes the prerequisites for the current technical system, respecting the type of the technical system</td>
<td></td>
</tr>
<tr>
<td>TECHNICAL_SYSTEM_EXECUTE_CONFIGURATION</td>
<td>Calls TECHNICAL_SYSTEM_ESTABLISH_PREREQUISITES and performs the necessary SSI configuration activities thereafter</td>
<td></td>
</tr>
<tr>
<td>TECHNICAL_SYSTEM_CLEANUP (deprecated)</td>
<td>Removes the specified technical system from SSI</td>
<td></td>
</tr>
<tr>
<td>TECHNICAL_SYSTEM_PERFORM_CLEANUP</td>
<td>Removes the specified technical system from SSI asynchronously</td>
<td></td>
</tr>
<tr>
<td>GET_RESULTS</td>
<td>Gets the configuration result for the given operation ID. This operation ID is obtained from the response of following operations:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TECHNICAL_SYSTEM_ESTABLISH_PREREQUISITES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TECHNICAL_SYSTEM_EXECUTE_CONFIGURATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TECHNICAL_SYSTEM_PERFORM_CLEANUP</td>
<td></td>
</tr>
</tbody>
</table>
SETUP THE SSI_REMOTE WEB SERVICE

A configuration for the SSI_REMOTE web service needs to be created:

- start transaction SOAMANAGER
- open the tab Service Administration
- click on Web Service Configuration
- enter "ssi_remote_service" in the field Object Name
- click on SSI_REMOTE_SERVICE in the search results
- open the tab Configurations
- press the Create Service button
- in the step Service and Binding Name enter:
  - Service Name: "SERVICE"
  - Service Description Text: "SSI web service"
  - New Binding Name: "binding"
- press Next
- in the step Provider Security:
  - underneath Transport Channel Authentication:
    - activate User ID/Password option
- press Next
- in step SOAP Protocol:
  - press the Finish button

EXAMPLES (ZIP)


The Examples ZIP-file holds example Web Services calls, which can be executed with the Postman tool (https://www.getpostman.com). It contains the following files:

- Environment file with postman variables: DEMO_SSI_WEB_SERVICES.postman_environment
Collection file with web services calls: DEMO_SSI_WEB_SERVICES.postman_collection

In the environment file, the below variables should be replaced with concrete values before loading the environment file into the Postman tool.

Before you run the Web Services, you should enter the required configuration details for the system in the Edit Configuration Dialog in the SSI UI (or you can set them via Web Service TECHNICAL_SYSTEM_SET_PROPERTIES).

When running the Web Services requests from Postman, you can choose two different modes:

1. Manual execution, request by request: in this case, you will need to start the Web Service calls Get Prerequisites Result Looping and Get Configuration Result Looping several times, until results are available.
2. Collection runner executes the whole collection: in this case the test-logic will do the looping for you.

For the example calls, "Initialize Customer Network" and "Activate Customer Network", the following variables should be filled in the environment file.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%CUSTOMER_ID%</td>
<td>See below, property CUSTOMER_ID</td>
</tr>
<tr>
<td>%DATA_CENTER_ID%</td>
<td>See below, property DATA_CENTER_ID</td>
</tr>
<tr>
<td>%TEST_NETWORK_NAME%</td>
<td>See below, property CUSTOMER_NETWORK_NAME</td>
</tr>
<tr>
<td>%INBOUND_FENCING_PARAMETER%</td>
<td>See below, property INBOUND_FENCING_PARAMETER</td>
</tr>
<tr>
<td>%PROXY_HOST_NAME%</td>
<td>See below, property PROXY_HOST_NAME</td>
</tr>
<tr>
<td>%REVERSE_PROXY_HOST_NAME%</td>
<td>See below, property REVERSE_PROXY_HOST_NAME</td>
</tr>
<tr>
<td>%HOST_PW%</td>
<td>See below, property SDAGENT_INSTALLATION_PASSWORD</td>
</tr>
</tbody>
</table>

For the remaining (technical system level) example calls, the following variables should be filled in in the environment file.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%SOLMAN_USER%</td>
<td>The user which the Web Services client (e.g. Postman) uses to connect to the Focused Run system</td>
</tr>
<tr>
<td>%SOLMAN_PASSWORD%</td>
<td>The password which the Web Services client (e.g. Postman) uses to connect to the Focused Run system</td>
</tr>
<tr>
<td>%HOSTNAME%</td>
<td>The full qualified host name of the Focused Run system</td>
</tr>
<tr>
<td>%PORT%</td>
<td>The HTTP port of the Focused Run system</td>
</tr>
<tr>
<td>%FRUN_EXT_SID%</td>
<td>The extended SID of the system which we want to configure via SSI, here suggested the extended SID of the FRUN system</td>
</tr>
<tr>
<td>%HANA_EXT_SID%</td>
<td>The extended SID of the HANADB used by the system which we want to configure via SSI, here suggested the extended SID of the HANADB used by the FRUN system</td>
</tr>
<tr>
<td>%FRUN_CUST_NET%</td>
<td>The customer network in which both the system with extended SID %FRUN_EXT_SID%, and the HANADB with extended SID %HANA_EXT_SID% are located, this may be the LOCALNETWORK, or another network</td>
</tr>
<tr>
<td>LMDB_CUSTOM_ATTRIBUTE1</td>
<td>Search for &quot;LMDB Additional Attribute&quot; below, for more details. The attribute Z_SERVICE_CLASS must be created if you want to run all tests.</td>
</tr>
<tr>
<td>LMDB_CUSTOM_ATTRIBUTE2</td>
<td>Search for &quot;LMDB Additional Attribute&quot; below, for more details. The attribute Z_TRACK must be created if you want to run all tests.</td>
</tr>
</tbody>
</table>

**WEB SERVICE OPERATION CUSTOMER_NETWORK_INITIALIZE**

*Request Properties*
<table>
<thead>
<tr>
<th>Variable</th>
<th>Property Name</th>
<th>Allowed Values Information</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
<td>CustomOpDefName</td>
<td>CUSTOMER_NETWORK_INITIALIZE</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>CUSTOMER_NETWORK_NAME</td>
<td>Maximum length is 40 characters</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>CUSTOMER_NETWORK_DESCRIPTION</td>
<td>Maximum length is 64 characters</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>CUSTOMER_ID</td>
<td>Maximum length is 3 characters</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>DATA_CENTER_ID</td>
<td>Maximum length is 4 characters</td>
<td>*Since FRUN 2.0 FP02</td>
</tr>
<tr>
<td>mandatory</td>
<td>INBOUND_FENCING_PARAMETER</td>
<td>Maximum length is 255 characters</td>
<td>Since FRUN 1.0 FP02</td>
</tr>
<tr>
<td>mandatory</td>
<td>REVERSE_PROXY_HOST_NAME</td>
<td>Maximum length is 255 characters</td>
<td>Since FRUN 1.0 FP02</td>
</tr>
<tr>
<td>mandatory</td>
<td>REVERSE_PROXY_PORT_NUMBER</td>
<td>Integer from 1 to 65535</td>
<td>Since FRUN 1.0 FP02</td>
</tr>
<tr>
<td>mandatory</td>
<td>REVERSE_PROXY_IS_SECURE</td>
<td>Boolean</td>
<td>true: use HTTPS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>false: use HTTP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Since FRUN 1.0 FP02</td>
</tr>
<tr>
<td>mandatory</td>
<td>SDAGENT_INSTALLATION_PASSWORD</td>
<td>Maximum length is 255 characters</td>
<td>The sapadm password used for installing the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SAP Host Agent and its Web Services</td>
</tr>
<tr>
<td>optional</td>
<td>PROXY_HOST_NAME</td>
<td>Maximum length is 255 characters</td>
<td>Used for the communication from the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>administration network to the customer network</td>
</tr>
<tr>
<td>Variable</td>
<td>Property Name</td>
<td>Allowed Values Information</td>
<td>Details</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------</td>
<td>----------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>optional</td>
<td>PROXY_PORT_NUMBER</td>
<td>Integer from 1 to 65535</td>
<td>Used for the communication from the administration network to the customer network Since FRUN 1.0 FP02</td>
</tr>
<tr>
<td>optional</td>
<td>USE_PROXY_FOR_AGENT</td>
<td>Boolean</td>
<td>true: The proxy information should be used for the agent connections (via SM59 destinations) Since FRUN 1.0 FP02</td>
</tr>
</tbody>
</table>

**Request Template**

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
    <soapenv:Header/>
    <soapenv:Body>
        <cus:executeCustomOperationService>
            <OperationName/>
            <OperationOptions>
                <AccUsername/>
                <OperationTimeout>3</OperationTimeout>
                <OperationParameters/>
            </OperationOptions>
            <Service>
                <SystemServiceId/>
                <SystemSID/>
                <SystemHost/>
                <ServiceId/>
                <ServiceName/>
                <ServiceType/>
                <ServiceHost/>
                <ServiceClass/>
                <ServiceClassDetailed/>
            </Service>
            <ServiceProperties>
                <properties>
                    <PropName>CustomOpDefName</PropName>
                    <PropValue>CUSTOMER_NETWORK_INITIALIZE</PropValue>
                </properties>
            </ServiceProperties>
        </cus:executeCustomOperationService>
    </soapenv:Body>
</soapenv:Envelope>
```
</properties>

<properties>
    <PropName>CUSTOMER_NETWORK_NAME</PropName>
    <PropValue>@CUSTOMER_NETWORK_NAME@</PropValue>
</properties>

<properties>
    <PropName>CUSTOMER_NETWORK_DESCRIPTION</PropName>
    <PropValue>@CUSTOMER_NETWORK_DESCRIPTION@</PropValue>
</properties>

<properties>
    <PropName>INBOUND_FENCING_PARAMETER</PropName>
    <PropValue>@INBOUND_FENCING_PARAMETER@</PropValue>
</properties>

<properties>
    <PropName>CUSTOMER_ID</PropName>
    <PropValue>@CUSTOMER_ID@</PropValue>
</properties>

<properties>
    <PropName>DATA_CENTER_ID</PropName>
    <PropValue>@DATA_CENTER_ID@</PropValue>
</properties>

<properties>
    <PropName>USE_PROXY_FOR_AGENT</PropName>
    <PropValue>@USE_PROXY_FOR_AGENT@</PropValue>
</properties>

<properties>
    <PropName>PROXY_HOST_NAME</PropName>
    <PropValue>@PROXY_HOST_NAME@</PropValue>
</properties>

<properties>
    <PropName>PROXY_PORT_NUMBER</PropName>
</properties>
<PropValue>@PROXY_PORT_NUMBER@</PropValue>
</properties>
<properties>
  <PropName>REVERSE_PROXY_HOST_NAME</PropName>
  <PropValue>@REVERSE_PROXY_HOST_NAME@</PropValue>
</properties>
<properties>
  <PropName>REVERSE_PROXY_PORT_NUMBER</PropName>
  <PropValue>@REVERSE_PROXY_PORT_NUMBER@</PropValue>
</properties>
<properties>
  <PropName>REVERSE_PROXY_IS_SECURE</PropName>
  <PropValue>@REVERSE_PROXY_IS_SECURE@</PropValue>
</properties>
<properties>
  <PropName>SDAGENT_INSTALLATION_PASSWORD</PropName>
  <PropValue>@SDAGENT_INSTALLATION_PASSWORD@</PropValue>
</properties>
<properties>
  <PropName>USE_PROXY_FOR_HOST_AGENT</PropName>
  <PropValue>@USE_PROXY_FOR_HOST_AGENT@</PropValue>
</properties>
</ServiceProperties>
</Service>
<Hostname/>
</cus:executeCustomOperationService>
</soapenv:Body>
</soapenv:Envelope>
WEB SERVICE OPERATION CUSTOMER_NETWORK_ACTIVATE

**Request Properties**

<table>
<thead>
<tr>
<th>Type</th>
<th>Property Name</th>
<th>Allowed Values Information</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
<td>CustomOpDefName</td>
<td>CUSTOMER_NETWORK_ACTIVATE</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>CUSTOMER_NETWORK_NAME</td>
<td>Maximum length is 40 characters</td>
<td></td>
</tr>
</tbody>
</table>

**Request Template**

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  <soapenv:Header/>
  <soapenv:Body>
    <cus:executeCustomOperationService>
      <OperationName/>
      <OperationOptions>
        <AccUsername/>
        <OperationTimeout>0</OperationTimeout>
        <OperationParameters>
        </OperationParameters>
      </OperationOptions>
      <Service>
        <SystemServiceId/>
        <SystemSID/>
        <SystemHost/>
        <ServiceId/>
        <ServiceName/>
        <ServiceType/>
        <ServiceHost/>
    </cus:executeCustomOperationService>
  </soapenv:Body>
</soapenv:Envelope>
```
<ServiceClass/>
<ServiceClassDetailed/>
<ServiceProperties>
  <properties>
    <PropName>CustomOpDefName</PropName>
    <PropValue>CUSTOMER_NETWORK_ACTIVATE</PropValue>
  </properties>
  <properties>
    <PropName>CUSTOMER_NETWORK_NAME</PropName>
    <PropValue>@CUSTOMER_NETWORK_NAME@</PropValue>
  </properties>
</ServiceProperties>
<Hostname/>
</cus:executeCustomOperationService>
</soapenv:Body>
</soapenv:Envelope>
## Supported Technical System Types

<table>
<thead>
<tr>
<th>Product Name</th>
<th>LMDB System Type (System Type ID)</th>
<th>Software Component Version (SCV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP TREX</td>
<td>TREX System (TREX)</td>
<td>Product Version</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.25</td>
</tr>
<tr>
<td>SAP Web Dispatcher</td>
<td>SAP Web Dispatcher (WEBDISP)</td>
<td></td>
</tr>
<tr>
<td>SAP NetWeaver Application Server Java</td>
<td>Application Server Java (JAVA)</td>
<td></td>
</tr>
<tr>
<td>SAP NetWeaver Application Server ABAP</td>
<td>Application Server ABAP (ABAP)</td>
<td></td>
</tr>
<tr>
<td>SAP Master Data Management</td>
<td>SAP NetWeaver Master Data Management Server (MDM)</td>
<td></td>
</tr>
<tr>
<td>SAP Mobile Platform</td>
<td>SAP Mobile Platform (SUP)</td>
<td>Product Version</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>SAP Invoice Management for OCR Option by OpenText</td>
<td>Unspecific Cluster System (UNSPECIFIC)</td>
<td>Product Version</td>
</tr>
<tr>
<td></td>
<td>LMDB Technology Type: Others</td>
<td>7.5</td>
</tr>
<tr>
<td>SAP HANA Database</td>
<td>SAP HANA Database (HANADBD)</td>
<td></td>
</tr>
<tr>
<td>Product Name</td>
<td>LMDB System Type (System Type ID)</td>
<td>Software Component Version (SCV)</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>SAP Convergent Charging</td>
<td>Unspecific Cluster System (UNSPECIFIC)</td>
<td><strong>Product Version</strong></td>
</tr>
<tr>
<td></td>
<td>LMDB Technology Type: ConvergentChargingCluster</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.6</td>
</tr>
<tr>
<td>SAP Cloud Platform Cloud Connector</td>
<td>SAP Cloud Platform Cloud Connector (CLOUD_CONN)</td>
<td></td>
</tr>
<tr>
<td>SAP Financial Consolidation</td>
<td>Unspecific Cluster System (UNSPECIFIC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LMDB Technology Type: BOFC_Cluster</td>
<td></td>
</tr>
<tr>
<td>SAP BOE DS - SAP Data Services</td>
<td>Unspecific Cluster System (UNSPECIFIC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LMDB Technology Type: DataServicesCluster</td>
<td></td>
</tr>
<tr>
<td>SAP BusinessObjects Business Intelligence</td>
<td>SAP BusinessObjects Cluster (BOBJ)</td>
<td></td>
</tr>
<tr>
<td>SAP Archiving and Document Access by OpenText for Tomcat</td>
<td>Apache Tomcat Server (ATC)</td>
<td></td>
</tr>
<tr>
<td>SAP Archiving and Document Access by OpenText Native</td>
<td>Unspecific Cluster System (UNSPECIFIC)</td>
<td><strong>Product Version</strong></td>
</tr>
<tr>
<td></td>
<td>LMDB Technology Type: Others</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.5</td>
</tr>
<tr>
<td>Product Name</td>
<td>LMDB System Type (System Type ID)</td>
<td>Software Component Version (SCV)</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Microsoft IIS Server</strong></td>
<td></td>
<td>one or both SCV’s must be present</td>
</tr>
<tr>
<td>On the FRUN expert portal refer to the SAP Content Server scenario</td>
<td>Microsoft Internet Information Services (MSIIINST)</td>
<td></td>
</tr>
<tr>
<td><strong>Database</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CA Introscope Enterprise Manager</strong></td>
<td>Database System (DBSYSTEM)</td>
<td></td>
</tr>
<tr>
<td><strong>Apache Tomcat Server</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Since FRUN 2.0 SP00</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SAP liveCache</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Version</th>
<th>PPMS SCV NAME</th>
<th>PPMS ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.0</td>
<td>MS IIS 7.0</td>
<td>01120615320200014081</td>
</tr>
<tr>
<td>7.5</td>
<td>MS IIS 7.5</td>
<td>01200314690200011726</td>
</tr>
<tr>
<td>8.0</td>
<td>MS IIS 8.0</td>
<td>678378001002000023900</td>
</tr>
<tr>
<td>8.5</td>
<td>MS IIS 8.5</td>
<td>7355500010020001004</td>
</tr>
<tr>
<td>10.0*</td>
<td>MS IIS 10.0</td>
<td>73554900100200010022</td>
</tr>
</tbody>
</table>

*since FRUN 2.0 FP02

*Introscope Enterprise Manager (Collector) (IS_EM with server type: Collector) is supported ONLY while configuring the connected IS_MOM*
Other products which are not mentioned in the list above may be supported with these definitions:

- Unspecific 3-Tier System (UNSP3TIER)
- Unspecific Cluster System (UNSPECIFIC)
- Unspecific Standalone Application System (UNSPAPP)

**UNSUPPORTED TECHNICAL SYSTEM TYPES**

With Focused Run 1.0 FP02 and later versions, the following LMDB Technical System types are not supported by SSI:

1. .NET System
2. Diagnostics Agent
3. External Service
4. IBM WebSphere Application Server

**PROPERTY NAMING CONVENTIONS**

Property names are case sensitive, and no case conversion is performed. By convention all custom LMDB Additional Attributes should be in uppercase.

**Supported Properties and Keys to Identify a Technical System**

These properties make up the key to identify the technical system. From here on, we will call this the *technical system key*.

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Allowed Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSTOMER_NETWORK_NAME</td>
<td>64 Character string</td>
</tr>
<tr>
<td>Property Name</td>
<td>Allowed Values</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SYSTEM_TYPE_ID</td>
<td>SYSTEM_TYPE_ID listed in table Supported Technical System Types</td>
</tr>
<tr>
<td>EXTENDED_SYSTEM_ID</td>
<td>3-8 Character string</td>
</tr>
<tr>
<td>SYSTEM_ID</td>
<td>3 Character string</td>
</tr>
<tr>
<td>HOST_NAME</td>
<td>Logical host name of the host on which the technical system is running.</td>
</tr>
</tbody>
</table>

The HOST_NAME property must only be specified if the below documented SYSTEM_ID / HOST_NAME based identification key is used.

**EXTENDED_SYSTEM_ID based identification key**

- CUSTOMER_NETWORK_NAME
- SYSTEM_TYPE_ID
- EXTENDED_SYSTEM_ID

**SYSTEM_ID based identification key for ABAP, JAVA, HANADB, LIVE_CACHE, MDM, WEBDISP**

If the EXTENDED_SYSTEM_ID is not known or cannot be used, the Web Service lookup can also be performed based on SYSTEM_ID, for the mentioned SYSTEM_TYPE_ID's. Use following key:

- CUSTOMER_NETWORK_NAME
- SYSTEM_TYPE_ID
- SYSTEM_ID

**SYSTEM_ID / HOST_NAME based identification key for remaining SYSTEM_TYPE_ID's**

If the EXTENDED_SYSTEM_ID is not known or cannot be used, the Web Service lookup must be performed based on SYSTEM_ID / HOST_NAME, for the remaining SYSTEM_TYPE_ID's. Use following key:

- CUSTOMER_NETWORK_NAME
- SYSTEM_TYPE_ID
Web Service Operation TECHNICAL_SYSTEM_SET_EXTENDED_SYSTEM_ID

**Request Properties**

<table>
<thead>
<tr>
<th>Type</th>
<th>Property Name</th>
<th>Allowed Values Information</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
<td>CustomOpDefName</td>
<td>TECHNICAL_SYSTEM_SET_EXTENDED_SYSTEM_ID</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>technical system key</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>NEW_EXTENDED_SYSTEM_ID</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Request Template**

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/
  <soapenv:Header/>
  <soapenv:Body>
    <cus:executeCustomOperationService>
      <OperationName/>
      <OperationOptions>
        <AccUsername/>
        <OperationTimeout>3</OperationTimeout>
        <OperationParameters/>
      </OperationOptions>
      <Service>
        <SystemServiceId/>
        <SystemSID/>
        <SystemHost/>
        <ServiceId/>
        <ServiceName/>
        <ServiceType/>
        <ServiceHost/>
        <ServiceClass/>
        <ServiceClassDetailed/>
      </Service>
    </cus:executeCustomOperationService>
  </soapenv:Body>
</soapenv:Envelope>
```
<ServiceProperties>
   <properties>
      <PropName>CustomOpDefName</PropName>
      <PropValue>TECHNICAL_SYSTEM_SET_EXTENDED_SYSTEM_ID</PropValue>
   </properties>
   <properties>
      <PropName>CU_CUSTOMER_NETWORK_NAME</PropName>
      <PropValue>@CUSTOMER_NETWORK_NAME@</PropValue>
   </properties>
   <properties>
      <PropName>EXTENDED_SYSTEM_ID</PropName>
      <PropValue>@EXTENDED_SYSTEM_ID@</PropValue>
   </properties>
   <properties>
      <PropName>SYSTEM_TYPE_ID</PropName>
      <PropValue>@SYSTEM_TYPE_ID@</PropValue>
   </properties>
   <properties>
      <PropName>NEW_EXTENDED_SYSTEM_ID</PropName>
      <PropValue>@NEW_EXTENDED_SYSTEM_ID@</PropValue>
   </properties>
</ServiceProperties>

WEB SERVICE OPERATION TECHNICAL_SYSTEM_SET_PROPERTIES

Request Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Property Name</th>
<th>Values</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
<td>CustomOpDefName</td>
<td>TECHNICAL_SYSTEM_SET_PROPERTIES</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>technical system key</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Property Name</td>
<td>Values</td>
<td>Details</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>optional</td>
<td>SYSTEM_NUMBER</td>
<td>- 18 Digit system number string for the technical system</td>
<td>Will only perform an LMDB write if the SYSTEM_NUMBER specified in the Web Service and the system number for the technical system in the LMDB are indeed different.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The property SYSTEM_NUMBER is to be used for setting the system number for the &quot;application server&quot;. The application server may also be a HANA system.</td>
<td>For systems where the system number is provided via a Data Supplier of the system, this operation may abort due to an LMDB exception.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The operation TECHNICAL_SYSTEM_GET_PROPERTIES can be used to get and check the system number, and to prevent such LMDB exceptions.</td>
</tr>
<tr>
<td>optional</td>
<td>SYSTEM_NUMBER_HANA</td>
<td>- 18 Digit system number string for the SAP HANA Database on which the technical system is running</td>
<td>Will only perform an LMDB write if the SYSTEM_NUMBER_HANA specified in the Web Service and the system number for the SAP HANA Database in the LMDB are indeed different.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The property SYSTEM_NUMBER_HANA is to be used for setting the system number for the &quot;HANA database&quot;. This property should be used when dealing with (e.g.) ABAP or JAVA &quot;on HANA&quot;.</td>
<td>For systems where the system number is provided via a Data Supplier of the system, this operation may abort due to an LMDB exception.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The operation TECHNICAL_SYSTEM_GET_PROPERTIES can be used to get and check the system number, and to prevent such LMDB exceptions.</td>
</tr>
<tr>
<td>optional</td>
<td>IT_ADMIN_ROLE</td>
<td>- Only valid LMDB values, case sensitive, English</td>
<td></td>
</tr>
<tr>
<td>optional</td>
<td>LIFECYCLE_STATUS</td>
<td>- Only valid LMDB values, case sensitive, English</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Allowed: Planned, Ordered, Installed, Inactive, Passive, Undefined</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Not Allowed:</td>
<td>- Active: Upon successful completion, the Web Service Operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Property Name</td>
<td>Values</td>
<td>Details</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
|           |               | TECHNICAL_SYSTEM_EXECUTE_CONFIGURATION                                | will set the Lifecycle Status to value Active  
- Disused: reserved for decommissioning                                                                                                                                                                                                                                                                                                                                                                           |
| optional  | PRIORITY      | - Only valid LMDB values, case sensitive, English  
- Allowed: Very High, High, Medium, Low, Undefined                                                                                                                                                                                                                                                                                                                                                             |
| optional  | LMDB_ATTRIBUTE_NAME_<PATTERN> | - The name and the value of an existing and configured LMDB Additional Attribute.                                                                                                                                                                                                                                                                                                                                                                                   |
|           | LMDB_ATTRIBUTE_VALUE_<PATTERN> | -   | The name and value of the LMDB Additional Attribute, must be specified as a pair both having the same pattern. Multiple pairs can be specified. Pattern can for example be 01, 02, X, Y, Z, or be like MY_PRIO, MY_RANK.  
Value @INITIAL@ can be used to specify an empty value.  
Note: The LMDB Additional Attributes which are being set must have been configured in the LMDB before this Web Service can be used to set such LMDB Additional Attributes. With sufficient permissions, this can be done using transaction sm34 with cluster VC_LMDB_ADD_ATTR.  
Max length of LMDB_ATTRIBUTE_NAME_<PATTERN> value: 15 characters  
Max length of LMDB_ATTRIBUTE_VALUE_<PATTERN> value: 1024 characters                                                                                                                                                                                                                                                                                                                                                     |

**Properties per System Type**

1. All the below properties are in principle optional.
2. SDAGENT_TS_USER and SDAGENT_TS_PASSWORD should be specified together.
3. Setting a property to @INITIAL@ will erase the stored value from the Focused Run system. If a property has been set to @INITIAL@, following applies to the below specified default value:
   a. In the SSI Edit Configuration Dialog, the default value will be shown.
   b. Without saving this default value, the default value will be used to configure connected Diagnostics Agents, if you run SSI.
   c. The Web Service Operation TECHNICAL_SYSTEM_GET_PROPERTIES does not return the default value. It returns the MessageKey XML-tag, but omits the MessageValue XML-tag, for the respective property. This behavior may be changed in future Feature Packs or Service Packs.

4. Per FRUN 2.0 FP1: Usage of @INITIAL@ for ABAP systems and the COMMUNICATION_MODE property
   a. It is possible to set only COMMUNICATION_MODE to @INITIAL@
   b. Or a combination of the other communication related properties can be set to @INITIAL@
   c. If a real value is specified for one of the communication related properties, then COMMUNICATION_MODE must also be specified, and connection check is performed as part of calling TECHNICAL_SYSTEM_SET_PROPERTIES

<table>
<thead>
<tr>
<th>System Type</th>
<th>Property Name for Web Services</th>
<th>Property Name on SSI UI</th>
<th>Maximum Length</th>
<th>Default Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP NetWeaver Application Server ABAP</td>
<td>SDAGENT_TS_CLIENT</td>
<td>Monitoring Client</td>
<td>3 digits</td>
<td>000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SDAGENT_TS_USER</td>
<td>Monitoring User</td>
<td>255 characters</td>
<td>SDAGENT_&lt;SID&gt; before FRUN 2.0: SDAGENT</td>
<td>&lt;SID&gt; is a placeholder for the System ID of the FRUN system</td>
</tr>
<tr>
<td></td>
<td>SDAGENT_TS_PASSWORD</td>
<td>Monitoring Password</td>
<td>255 characters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Type</td>
<td>Property Name for Web Services</td>
<td>Property Name on SSI UI</td>
<td>Maximum Length</td>
<td>Default Value</td>
<td>Remarks</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------</td>
<td>-------------------------</td>
<td>----------------</td>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>COMMUNICATION_MODE</td>
<td>Communication Mode</td>
<td>string</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Following values are valid:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- PLAIN_WITH_BASIC_AUTHENTICATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- SECURE_WITH_CERTIFICATE_BASED_AUTHENTICATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TAKE CARE:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- This is an incompatible API change with respect to FRUN 1.0 FP02. Whenever user credentials are provided, COMMUNICATION_MODE must be specified. An explicit choice for the security model must be made.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Usage and mitigation information is available in section &quot;ABAP COMMUNICATION_MODE Property&quot; below.</td>
</tr>
<tr>
<td></td>
<td>QUALITY_OF_PROTECTION</td>
<td>Quality of Protection</td>
<td>1 digit</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>- Authentication Only</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>- Integrity Protection</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>- Application Server's Default</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
<td>- Application Server's Maximum</td>
</tr>
<tr>
<td></td>
<td>SNC_PARTNERNAME</td>
<td>Application Server’s SNC Name</td>
<td>220 characters</td>
<td></td>
<td>The property value should contain ':'</td>
</tr>
<tr>
<td></td>
<td>SDAGENT_TS_SNC_MYNAME</td>
<td>Monitoring Client’s SNC Name</td>
<td>220 characters</td>
<td></td>
<td>The property value should contain ':'</td>
</tr>
<tr>
<td></td>
<td>LOGON_GROUP</td>
<td>Logon Group</td>
<td>16 characters</td>
<td>SPACE</td>
<td></td>
</tr>
</tbody>
</table>

SAP NetWeaver Application Server Java,
<table>
<thead>
<tr>
<th>System Type</th>
<th>Property Name for Web Services</th>
<th>Property Name on SSI UI</th>
<th>Maximum Length</th>
<th>Default Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP Mobile Platform, SAP Cloud Platform Cloud Connector</td>
<td>SDAGENT_TS_USER</td>
<td>Monitoring User</td>
<td>255 characters</td>
<td></td>
<td>For AS Java: SDAGENTJ_&lt;SID&gt; before FRUN 2.0: SDAGENTJ &lt;SID&gt; is a placeholder for the System ID of the FRUN system</td>
</tr>
<tr>
<td></td>
<td>SDAGENT_TS_PASSWORD</td>
<td>Monitoring Password</td>
<td>255 characters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAP BusinessObjects Business Intelligence</td>
<td>SDAGENT_TS_USER</td>
<td>Monitoring User</td>
<td>255 characters</td>
<td>Administrator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SDAGENT_TS_PASSWORD</td>
<td>Monitoring Password</td>
<td>255 characters</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMS_HOST</td>
<td>CMS Host</td>
<td>255 characters</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMS_PORT</td>
<td>CMS Port</td>
<td>5 digits</td>
<td>6400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NCS_PORT</td>
<td>NCS Port</td>
<td>5 digits</td>
<td>6404</td>
<td></td>
</tr>
<tr>
<td>System Type</td>
<td>Property Name for Web Services</td>
<td>Property Name on SSI UI</td>
<td>Maximum Length</td>
<td>Default Value</td>
<td>Remarks</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------</td>
<td>-------------------------</td>
<td>----------------</td>
<td>--------------</td>
<td>---------</td>
</tr>
<tr>
<td>SAP Data Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NCS_PORT</td>
<td>NCS Port</td>
<td>5 digits</td>
<td>6391</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS_DIR</td>
<td>Installation Directory</td>
<td>1024 characters</td>
<td></td>
<td>The Data Services Installation Directory, as stored in environment variable DS_COMMON_DIR.</td>
</tr>
<tr>
<td>SAP Financial Consolidation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NCS_PORT</td>
<td>NCS Port</td>
<td>5 digits</td>
<td>6391</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADMIN_CONSOLE_URL</td>
<td>Admin Console URL</td>
<td>1024 characters</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WEB_SERVER_URL</td>
<td>Web Server URL</td>
<td>1024 characters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAP Master Data Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NCS_PORT</td>
<td>NCS Port</td>
<td>5 digits</td>
<td>59818</td>
<td></td>
</tr>
</tbody>
</table>

**ABAP COMMUNICATION_MODE Property**

Since FRUN 1.0 FP03

This property causes an incompatible API change with respect to FRUN 1.0 FP02, when configuring ABAP managed systems. Whenever user credentials are provided, COMMUNICATION_MODE must be specified. An explicit choice for the security model must be made.
**Mitigation:** Already with the FRUN 1.0 FP02 based solution, when calling TECHNICAL_SYSTEM_SET_PROPERTIES for an ABAP system, the property COMMUNICATION_MODE can be specified. It will be silently ignored. In these cases, in addition to specifying the SDAGENT_TS_CLIENT, SDAGENT_TS_USER, and SDAGENT_TS_PASSWORD properties, the property COMMUNICATION_MODE with the value of PLAIN_WITH_BASIC_AUTHENTICATION should be specified.

The below table documents which properties should be specified for the different communication modes.

<table>
<thead>
<tr>
<th>Communication Mode</th>
<th>Required Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLAIN_WITH_BASIC_AUTHENTICATION</td>
<td>- SDAGENT_TS_CLIENT (stricter enforcement per FRUN 2.0 FP01)</td>
</tr>
<tr>
<td></td>
<td>- SDAGENT_TS_USER</td>
</tr>
<tr>
<td></td>
<td>- SDAGENT_TS_PASSWORD</td>
</tr>
<tr>
<td>SECURE_WITH_CERTIFICATE_BASED_AUTHENTICATION</td>
<td>- SDAGENT_TS_CLIENT (stricter enforcement per FRUN 2.0 FP01)</td>
</tr>
<tr>
<td></td>
<td>- SDAGENT_TS_SNC_MYNAME</td>
</tr>
<tr>
<td></td>
<td>- QUALITY_OF_PROTECTION</td>
</tr>
<tr>
<td></td>
<td>- SNC_PARTNERNAME</td>
</tr>
</tbody>
</table>

**Request Template**

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/
  <soapenv:Header/>
  <soapenv:Body>
    <cus:executeCustomOperationService>
      <OperationName/>
      <OperationOptions>
        <AccUsername/>
        <OperationTimeout>3</OperationTimeout>
        <OperationParameters/>
      </OperationOptions>
      <Service>
        <SystemServiceId/>
        <SystemSID/>
        <SystemHost/>
        <ServiceId/>
        <ServiceName/>
        <ServiceType/>
        <ServiceHost/>
        <ServiceClass/>
        <ServiceClassDetailed/>
    </cus:executeCustomOperationService>
  </soapenv:Body>
</soapenv:Envelope>
```
<ServiceProperties>
  <properties>
    <PropName>CustomOpDefName</PropName>
    <PropValue>TECHNICAL_SYSTEM_SET_PROPERTIES</PropValue>
  </properties>
  <properties>
    <PropName>CUSTOMER_NETWORK_NAME</PropName>
    <PropValue>@CUSTOMER_NETWORK_NAME@</PropValue>
  </properties>
  <properties>
    <PropName>SYSTEM_ID</PropName>
    <PropValue>@SYSTEM_ID@</PropValue>
  </properties>
  <properties>
    <PropName>SYSTEM_TYPE_ID</PropName>
    <PropValue>@SYSTEM_TYPE_ID@</PropValue>
  </properties>
  <properties>
    <PropName>HOST_NAME</PropName>
    <PropValue>@HOST_NAME@</PropValue>
  </properties>
  <properties>
    <PropName>IT_ADMIN_ROLE</PropName>
    <PropValue>@IT_ADMIN_ROLE@</PropValue>
  </properties>
  <properties>
    <PropName>LIFECYCLE_STATUS</PropName>
    <PropValue>@LIFECYCLE_STATUS@</PropValue>
  </properties>
  <properties>
    <PropName>PRIORITY</PropName>
    <PropValue>@PRIORITY@</PropValue>
  </properties>
  <properties>
    <PropName>CMS_PORT</PropName>
    <PropValue>@CMS_PORT@</PropValue>
  </properties>
</ServiceProperties>

NOTE: The HOST_NAME property is only required for certain technical system types. Refer to the documentation for details.
<properties>
    <PropName>NCS_PORT</PropName>
    <PropValue>@NCS_PORT@</PropValue>
</properties>
<properties>
    <PropName>SYSTEM_NUMBER</PropName>
    <PropValue>@SYSTEM_NUMBER@</PropValue>
</properties>
<properties>
    <PropName>SYSTEM_NUMBER_HANA</PropName>
    <PropValue>@SYSTEM_NUMBER_HANA@</PropValue>
</properties>
<properties>
    <PropName>LMDB_ATTRIBUTE_NAME_<PATTERN_X></PropName>
    <PropValue>@LMDB_ATTRIBUTE_NAME_<PATTERN_X>@</PropValue>
</properties>
<properties>
    <PropName>LMDB_ATTRIBUTE_VALUE_<PATTERN_X></PropName>
    <PropValue>@LMDB_ATTRIBUTE_VALUE_<PATTERN_X>@</PropValue>
</properties>
<properties>
    <PropName>LMDB_ATTRIBUTE_NAME_<PATTERN_Y></PropName>
    <PropValue>@LMDB_ATTRIBUTE_NAME_<PATTERN_Y>@</PropValue>
</properties>
<properties>
    <PropName>LMDB_ATTRIBUTE_VALUE_<PATTERN_Y></PropName>
    <PropValue>@LMDB_ATTRIBUTE_VALUE_<PATTERN_Y>@</PropValue>
</properties>
</ServiceProperties>
<Hostname/>
</cus:executeCustomOperationService>
</soapenv:Body>
</soapenv:Envelope>
## WEB SERVICE OPERATION TECHNICAL_SYSTEM_GET_PROPERTIES

### Request Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Property Name</th>
<th>Values</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
<td>CustomOpDefName</td>
<td>TECHNICAL_SYSTEM_GET_PROPERTIES</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>technical system key</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Request Template

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/
  <soapenv:Header/>
  <soapenv:Body>
    <cus:executeCustomOperationService>
      <OperationName/>
      <OperationOptions>
        <AccUsername/>
        <OperationTimeout>3</OperationTimeout>
        <OperationParameters/>
      </OperationOptions>
      <Service>
        <SystemServiceId/>
        <SystemSID/>
        <ServiceId/>
        <ServiceName/>
        <ServiceType/>
        <ServiceHost/>
        <ServiceClass/>
        <ServiceClassDetailed/>
        <ServiceProperties>
          <properties>
            <PropName>CustomOpDefName</PropName>
            <PropValue>TECHNICAL_SYSTEM_GET_PROPERTIES</PropValue>
          </properties>
          <properties>
            <PropName>CUSTOMER_NETWORK_NAME</PropName>
          </properties>
        </ServiceProperties>
      </Service>
    </cus:executeCustomOperationService>
  </soapenv:Body>
</soapenv:Envelope>
```
NOTE: The HOST_NAME property is only required for certain technical system types. Refer to the documentation for details.
Response Example with Empty System Numbers

WEB SERVICE OPERATION TECHNICAL_SYSTEM_ESTABLISH_PREREQUISITES

Request Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Property Name</th>
<th>Values</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
<td>CustomOpDefName</td>
<td>TECHNICAL_SYSTEM_ESTABLISH_PREREQUISITES</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>technical system key</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Request Template

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  <soapenv:Header/>
  <soapenv:Body>
    <cus:executeCustomOperationService>
      <OperationName/>
      <OperationOptions>
        <AccUsername/>
        <OperationTimeout>3</OperationTimeout>
        <OperationParameters/>
      </OperationOptions>
      <Service>
        <SystemServiceId/>
        <SystemSID/>
        <SystemHost/>
        <ServiceId/>
        <ServiceName/>
        <ServiceType/>
        <ServiceHost/>
        <ServiceClass/>
        <ServiceClassDetailed/>
        <ServiceProperties>
          <properties>
            <PropName>CustomOpDefName</PropName>
            <PropValue>TECHNICAL_SYSTEM_ESTABLISH_PREREQUISITES</PropValue>
          </properties>
          <properties>
            <PropName>CUSTOMER_NETWORK_NAME</PropName>
            <PropValue>@CUSTOMER_NETWORK_NAME@</PropValue>
          </properties>
          <properties>
            <PropName>SYSTEM_ID</PropName>
            <PropValue>@SYSTEM_ID@</PropValue>
          </properties>
          <properties>
            <PropName>@SYSTEM_TYPE_ID@</PropName>
            <PropValue>@SYSTEM_TYPE_ID@</PropValue>
          </properties>
        </ServiceProperties>
      </Service>
    </cus:executeCustomOperationService>
  </soapenv:Body>
</soapenv:Envelope>
<Hostname/>
</cus:executeCustomOperationService>
</soapenv:Body>
</soapenv:Envelope>

Response Information

Returns a response document containing an OperationID such as: <OperationID>CID#CUST-NETWORK-NAME#TS#SIDCID#JAVA#20180214105258.6980530</OperationID>

WEB SERVICE OPERATION TECHNICAL_SYSTEM_EXECUTE_CONFIGURATION

Request Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Property Name</th>
<th>Values</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
<td>CustomOpDefName</td>
<td>TECHNICAL_SYSTEM_EXECUTE_CONFIGURATION</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>technical system key</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Request Template

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  <soapenv:Header/>
  <soapenv:Body>
    <cus:executeCustomOperationService>
      <OperationName/>
      <OperationOptions>
        <AccUsername/>
        <OperationTimeout>3</OperationTimeout>
        <OperationParameters/>
      </OperationOptions>
      <Service>
        <SystemServiceId/>
        <SystemSID/>
        <SystemHost/>
        <ServiceId/>
      </Service>
    </cus:executeCustomOperationService>
  </soapenv:Body>
</soapenv:Envelope>
<ServiceName/>
<ServiceType/>
<ServiceHost/>
<ServiceClass/>
<ServiceClassDetailed/>
  <ServiceProperties>
    <properties>
      <PropName>CustomOpDefName</PropName>
      <PropValue>TECHNICAL_SYSTEM_EXECUTE_CONFIGURATION</PropValue>
    </properties>
    <properties>
      <PropName>CUSTOMER_NETWORK_NAME</PropName>
      <PropValue>@CUSTOMER_NETWORK_NAME@</PropValue>
    </properties>
    <properties>
      <PropName>SYSTEM_ID</PropName>
      <PropValue>@SYSTEM_ID@</PropValue>
    </properties>
    <properties>
      <PropName>SYSTEM_TYPE_ID</PropName>
      <PropValue>@SYSTEM_TYPE_ID@</PropValue>
    </properties>
  </ServiceProperties>
</Service>
</cus:executeCustomOperationService>
</soapenv:Body>
</soapenv:Envelope>

Response Information

Returns a response document containing an OperationID such as: <OperationID>CID#CUST-NETWORK-NAME#TS#SIDCID#JAVA#20180214105258.6983520</OperationID>

WEB SERVICE OPERATION TECHNICAL_SYSTEM_CLEANUP (DEPRECATED)
Deprecation as of FRUN 2.0 FP01
This operation will be removed in FRUN 3.0.
### Request Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Property Name</th>
<th>Values</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
<td>CustomOpDefName</td>
<td>TECHNICAL_SYSTEM_CLEANUP</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>technical system key</td>
<td></td>
<td></td>
</tr>
<tr>
<td>optional</td>
<td>CLEANUP_UNUSED_HOSTS</td>
<td>boolean</td>
<td>Indicating if unused hosts must also be cleaned</td>
</tr>
</tbody>
</table>

### Request Template

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  <soapenv:Header/>
  <soapenv:Body>
    <cus:executeCustomOperationService>
      <OperationName/>
      <OperationOptions>
        <AccUsername/>
        <OperationTimeout>3</OperationTimeout>
        <OperationParameters/>
      </OperationOptions>
      <Service>
        <SystemServiceId/>
        <SystemSID/>
        <SystemHost/>
        <ServiceId/>
        <ServiceName/>
        <ServiceType/>
        <ServiceHost/>
        <ServiceClass/>
        <ServiceClassDetailed/>
        <ServiceProperties>
          <properties>
            <PropName>CustomOpDefName</PropName>
            <PropValue>TECHNICAL_SYSTEM_CLEANUP</PropValue>
          </properties>
        </ServiceProperties>
      </Service>
    </cus:executeCustomOperationService>
  </soapenv:Body>
</soapenv:Envelope>```
WEB SERVICE OPERATION TECHNICAL_SYSTEM_PERFORM_CLEANUP
Available from FRUN 2.0 FP01

Request Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Property Name</th>
<th>Values</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
<td>CustomOpDefName</td>
<td>TECHNICAL_SYSTEM_PERFORM_CLEANUP</td>
<td></td>
</tr>
<tr>
<td>mandatory</td>
<td>technical system key</td>
<td></td>
<td></td>
</tr>
<tr>
<td>optional</td>
<td>CLEANUP_UNUSED_HOSTS</td>
<td>boolean</td>
<td>Indicating if unused hosts must also be cleaned</td>
</tr>
</tbody>
</table>
Request Template

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  <soapenv:Header/>
  <soapenv:Body>
    <cus:executeCustomOperationService>
      <OperationName/>
      <OperationOptions>
        <AccUsername/>
        <OperationTimeout>3</OperationTimeout>
        <OperationParameters/>
      </OperationOptions>
      <Service>
        <SystemServiceId/>
        <SystemSID/>
        <SystemHost/>
        <ServiceId/>
        <ServiceName/>
        <ServiceType/>
        <ServiceHost/>
        <ServiceClass/>
        <ServiceClassDetailed/>
      </ServiceProperties>
      <ServiceProperties>
        <properties>
          <PropName>CustomOpDefName</PropName>
          <PropValue>TECHNICAL_SYSTEM_PERFORM_CLEANUP</PropValue>
        </properties>
        <properties>
          <PropName>CUSTOMER_NETWORK_NAME</PropName>
          <PropValue>@CUSTOMER_NETWORK_NAME@</PropValue>
        </properties>
        <properties>
          <PropName>EXTENDED_SYSTEM_ID</PropName>
          <PropValue>@EXTENDED_SYSTEM_ID@</PropValue>
        </properties>
        <properties>
          <PropName>SYSTEM_TYPE_ID</PropName>
          <PropValue>@SYSTEM_TYPE_ID@</PropValue>
        </properties>
        <properties>
          <PropName>CLEANUP_UNUSED_HOSTS</PropName>
        </properties>
      </ServiceProperties>
    </cus:executeCustomOperationService>
  </soapenv:Body>
</soapenv:Envelope>
```
Response Information

Returns a response document containing an OperationID such as: <OperationID>CLEANUP#CID#CUST-NETWORK-NAME#TS#SIDCID#JAVA#20180214105258.6983520</OperationID>

WEB SERVICE OPERATION GET_RESULTS

Request Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Property Name</th>
<th>Values</th>
<th>Details</th>
</tr>
</thead>
</table>
| mandatory | operationId   | - Provide a Correlation ID | Valid correlation IDs are returned by the following web service operations:  
- TECHNICAL_SYSTEM_ESTABLISH_PREREQUISITES  
- TECHNICAL_SYSTEM_EXECUTE_CONFIGURATION  
- TECHNICAL_SYSTEM_PERFORM_CLEANUP |
| mandatory | operationTimeout | - An integer value >= 0 | Specify a value > 0, for the asynchronous operation. This property does not have any other meaning than what is described here. It can be set to 30 or 60, etc. The actual value is not interpreted further.  
Specify a value = 0, for the synchronous operation. GET_RESULTS is designed to get results for long running asynchronous batch jobs. Setting this value to 0 is not supported for productive usage due to the high possibility of the request timing out. |

Request Template

```xml
<?xml version="1.0" encoding="UTF-8"?>
```
WEB SERVICES FORMAT

The SSI web services have been derived from an SAP LaMa schema definition in 2016. Actual compatibility tests with SAP LaMa have not been performed.

SAP Landscape Management (SAP LaMa) - formerly known as SAP Landscape Virtualization Management (SAP LVM) - is a powerful landscape administration solution that helps businesses reduce their cost of operations and increase their business agility.

For more details refer to https://www.sap.com/products/landscape-management.html