Product and Service Description (PSD) for the teaching and learning environment

Enterprise Management with Global Bike in SAP S/4HANA 2020 – shared with development rights, TLE Release 4.1

The following notes/information relate solely to the teaching and learning environment (TLE; hereinafter also referred to as the Product) "Enterprise Management with Global Bike in SAP S/4HANA 2020 - shared with development rights", TLE Release 4.1. They describe specific services provided by SAP UCC in a product-specific manner.

If an educational institution (hereinafter referred to as “Client”) decides to use the product described below, these PSD shall become an integral part of the contract upon conclusion of the TLE Use Contract.

In the event that provisions of these PSD contradict the provisions of the Framework Agreement concluded between the SAP University Competence Center of Otto von Guericke University Magdeburg ("SAP UCC") and Client, the respective PSD provisions shall take precedence over the provisions of the Framework Agreement concerned. The definitions set out in the Framework Agreement shall apply. They may be viewed on the SAP UCC website (https://portal.ucc.ovgu.de) under "My UCC/ACC" under "My Framework Agreement".

1. Product description

The product is typically suitable for client-dependent customizing exercises, SAP Fiori configuration as well as for the fields of ABAP programming and SAP Fiori development. An overview of instructional materials can be found in clause 9.

The product can also be utilised for the use of core ERP functionalities.

The TLE runs on an SAP S/4HANA system on which other educational institutions also work. Each institution acts independently in its own TLE. They are separated from other TLEs by the client concept (one client = one TLE). SAP UCC refers to this as a shared environment. The TLE includes the Global Bike model enterprise and associated organisational, master, and transactional data, as well as preconfigured user accounts.

2. Product limitations

Advanced features, such as Advanced ATP, MRP Live, PP-DS, or use of liveCache, may severely degrade the user experience of users from other educational institutions on the shared system and are therefore excluded from activation and use.

Changes to cross-client objects must be permitted for each client in order to engage in development and customizing. The ABAP development environment in S/4HANA is structured in such a way that developer and object keys are not queried when objects are created, changed, or deleted. The ABAP development environment may only be used to the full extent upon the release of changes to the repository in the client
settings and the corresponding user authorizations. SAP original objects can be modified without restrictions since SAP SE eliminated object keys. This allows users to modify objects of their own, as well as objects from other institutions and SAP original objects. Under certain circumstances, this may result in impairments to the use of the complete S/4HANA system and make it impossible to work on the system (even for other institutions!). This is due to the shared environment inherent to the product. There is no body monitoring changes to SAP objects.

The product cannot be used for cross-client customizing. Furthermore, no access to the SAP HANA database underlying the S/4HANA system is possible. A TLE based on an S/4HANA system intended for exclusive use must be used for cross-client customizing tasks, larger research and development projects, use of extended S/4HANA functions described above, or if access to the SAP HANA database is desired.

Independent creation of RFC connections is only allowed with the written consent of SAP UCC, as this has a direct impact on the functionality of the SAP Fiori Launchpad and the Fiori tiles within it.

The TLE may only be used for the purposes of scientific research and education; its use for the administration of an existing enterprise or educational institution is prohibited, as is its use in connection with armament technologies, weapons, missiles capable of delivering weapons, and/or the like (see the Framework Agreement).

NOTE: Limitations (e.g. in terms of data loss, availability, and functionality) may arise due to the shared environment inherent to the product. An exclusive system (e.g. "Enterprise Management with Global Bike in SAP S/4HANA - exclusive") should be used where only one TLE is operated on one system in order to avoid such limitations.

3. Usage notes

The client must ensure that users (e.g. students) are aware of the following guidelines for use of the TLE. Furthermore, it must encourage users to follow these guidelines:

- SAP original objects may not be changed or deleted.
- Objects created by other institutions may not be modified or deleted.
- Names of objects created by users (packages, programs, tables, function groups, includes, workflwows, business objects, etc.) must begin with the letters Z or Y. Two additional letters assigned by SAP UCC (institution key) and an underscore must follow that are specific to the respective institution to avoid name conflicts and to clearly assign objects to specific clients. For example, the correct name of an object could be Z[institution key]_HELLOWORLD. The institution key will be sent by e-mail together with access data and additional details in the course of delivery.
- The institution key associated with the institution must also be assigned to all other designations.

The client concept notwithstanding, educational institutions can affect each other whilst developments comprise system-wide changes. The TLEs for each institution are logically delimited as far as possible with regard to their necessary system-wide objects. This is implemented via naming conventions and unique abbreviations.
Predefined users for lecturers and students are available for use of S/4HANA clients as specified in the following table:

<table>
<thead>
<tr>
<th>User Type</th>
<th>User ID</th>
<th>Initial Word</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturers / Students</td>
<td>DEV[Institution Key]-### (000-999)</td>
<td>tlestart</td>
<td>possible</td>
</tr>
<tr>
<td>Lecturers</td>
<td>TEACH-### (000-020)</td>
<td>tlestart</td>
<td>not possible</td>
</tr>
<tr>
<td>Students</td>
<td>LEARN-### (000-999)</td>
<td>tlestart</td>
<td>not possible</td>
</tr>
</tbody>
</table>

Users must be unlocked via transaction ZUSR or SU10 prior to first use.

User IDs for users with development rights are abbreviated as DEV[Institution Key]-##. The assignment of unique user IDs is required for multiple clients in which development is performed since developers operate system-wide. The institution key integrated in the user ID precludes mutual interference during development on system-wide objects. Users “DEV[Institution Key]-###” use the profile SAP_ALL. These users do not have access to the SAP Fiori interface.

Users “TEACH-###” and “LEARN-###” may use the SAP Fiori interface.

User “MASTER” with the initial password “tleadmin” is intended to be used exclusively for administrative tasks, such as creating named users for other administrators or lecturers.

Creating a development package for each user with development rights or for each project in which the corresponding developments and changes are made is advisable. Objects created in the SAP standard $TMP package are local objects and cannot be transported to other systems. Object transport is not included in the performance specification of the product.

4. TLE life cycle and SAP product availability

SAP UCC reserves the right to issue a new TLE release every one to two years as a rule. With regard to the SAP UCC curricula and the technical basis, a TLE release will be supported and operated until the release of the next but one version.

The latest release is always used whenever a new release of the TLE is supplied.

If the Client uses a TLE version that has reached the end of its lifecycle, it is automatically switched off by SAP UCC and a current TLE will be supplied. SAP UCC will provide sufficient advance notice of the end of the lifecycle and the associated change to the current product version; notice will be provided no later than six months in advance.

Transferring objects from the previously used system to the new system via transport request is not included in the scope of services.

The Client will receive a new client when switching to a new TLE release. Changes to customizing, developments, data and users from the prior client will not be transferred to the new client.

Given that the TLE is based on an SAP product, SAP UCC is tied to product lifecycles for relevant SAP solutions as well as license provisioning within the SAP University Alliances program when operating as
well as deploying the SAP UCC TLE. SAP UCC may no longer provide the SAP Systems, and accordingly TLE, if SAP SE withdraws the license granted to Client in the SAP Software Transfer Agreement for On-Premise Products.

5. Backup and Recovery Services
The HANA database on which TLE is supported is backed up once a week. These backups are retained for four weeks. The database log files are backed up at the time they are written from the database and are also stored for four weeks (backup cycle). The SAP application server file systems, the HANA database, and the operating system are backed up and retained based on the same backup cycle as the database.

All backups are done online, i.e. without interrupting availability. Backups are made to SAP UCC’s backup system, which is physically separated from the SAP UCC data centre’s computer infrastructure.

SAP UCC will perform a restore and recovery of the entire system in the event of a technical malfunction or user error causing irreversible damage to the SAP S/4HANA system. Restoring individual clients is not possible. Restoration of the system will take a maximum of 3 working days (Monday to Friday; see definition in the Framework Agreement) during which the system cannot be accessed. Restoring the system is only possible during the usual SAP UCC backup cycle.

If necessary, the Client must manually clear developments that are no longer required. Resetting an S/4HANA client only affects client-specific customizing and user data.

NOTE: Since many institutions share the SAP S/4HANA system (see clause 1.), a restore and recovery of the entire system usually results in data loss in all TLEs running on the system. This is a defining characteristic of a shared environment. Use of an exclusive system (e.g. "Enterprise Management with Global Bike in SAP S/4HANA - exclusive") is advised if data losses resulting from the actions of other institutions is to be prevented.

6. System availability
As used herein, availability means that a user can successfully log on to SAP S/4HANA system.

As a rule, the SAP S/4HANA system for the TLE is intended to be operational 24 hours per day, 365 days per year. Availability of 98% over the contract year is guaranteed. Guaranteed availability does not include periods during which use is interrupted or impaired due to necessary maintenance work or on grounds for which SAP UCC is not responsible.

NOTE: Due to the shared environment inherent to the product, interruptions that are caused by users of other institutions working on the same system are not covered by guaranteed availability. Use of an exclusive system (e.g. "Enterprise Management with Global Bike in SAP S/4HANA - exclusive") is strongly advised these limitations are not desired.

Interruptions in availability resulting from faulty user activities, e.g. when the complete system has to be reset to the pre-modification state, are not included in the guaranteed availability.
Use of the TLE should be avoided during maintenance windows (Tuesdays between 06:00 and 10:00, CET or CEST; see Framework Agreement) as SAP UCC may use maintenance windows in some cases without notice or on very short notice.

Additional details on availability and maintenance can be found in the Framework Agreement.

7. Access requirements

All points of access to the respective TLE are secured by a prior specification of the static, routable IP addresses of the Client. Client can only use SAP applications via the IP addresses stored with SAP UCC if there is an IP address restriction. Client may notify SAP UCC of any changes at any time via the SAP UCC service desk or via the self-service options on the SAP UCC website.

Should Client wish to use the TLE from previously unspecified or dynamic IP addresses (e.g. in the case of mobile work from home), these can be enabled at any time using the self-service options on the SAP UCC website. This activation ends automatically after 24 hours and must be repeated again as needed.

A web browser is required to use SAP Fiori. The web browsers supported by SAP SE can be queried depending on the version of the SAP product at https://service.sap.com/pam. Use of a modern, up-to-date browser such as Chrome, Firefox or Edge is advisable.

The system may also be accessed by means of the SAP GUI. SAP UCC provides the latest version of the SAP GUI via download on its website; this a voluntary and free service provided by SAP UCC.

Client is responsible for installations, updates and the operation of browsers and the SAP GUI.

The installation of an Eclipse tool can be advantageous for the use of the ABAP development environment. Further information and installation instructions are available on the following webpage: https://tools.eu1.hana.ondemand.com/#abap

8. Technical system settings and limitations

The SAP S/4HANA system and the associated client are technically configured in such a way that a maximum of 250 users can work in parallel in the TLE environment (“concurrent users”). Another TLE is needed for a larger number of concurrent users.

9. Available instructional materials for this product

The following instructional materials are supplied for the TLE and can be obtained through SAP UCC:

- Introduction to Application Development with SAP S/4HANA
  - Basic Concepts
  - Database Access
  - Dynamic Programs
  - Modularization
- ABAP Objects
- Lock Concept
- Exception Handling
- HTML5 CSS JavaScript
- SAPUI5
- OData Services
- Fiori
- Analytical App Development

- Advanced Application Development with SAP S/4HANA
  - CDS Views
  - BOPF
  - OVP WEB ide

The instructional materials are created and maintained by SAP UCC, as well as other UCCs, in cooperation with experts from the SAP University Alliances Community. The instructional materials may also be considered user documentation and may be issued to your own students as PDF documents, subject to appropriate security measures.

10. Support
SAP UCC provides support for the TLE as described below. Support is provided exclusively in German and English.

Clients communicate with SAP UCC Support via
- the ticket system (https://servicedesk.ucc.ovgu.de) or using the
- hotline: +49 391 67-54871 (exclusively for malfunctions that impede operations).

SAP UCC will be available to accept Client support requests during normal business hours (8 a.m. to 6 p.m. CET or CEST on business days. See Framework Agreement).

SAP UCC and Client agree to the following response times categorised depending on the urgency:
- Malfunction that impedes operations - response time 8 hours
- Other malfunctions or requests - response time 24 hours

A malfunction that impedes operations shall mean that use of the SAP S/4HANA system for the TLE is impossible or severely limited. Response times commence upon receipt of the respective message during normal business hours and run exclusively during such hours. Messages must be sent by Client or registered lecturers of the Client.
a. Technical support

Technical support covers all questions and problems related to the operation and performance of the S/4HANA system. It exclusively comprises services which are necessary to enable the smooth and error-free use of the ERP core functionalities, along with development functions, of the TLE (see clause 2.).

Processing requests related to impairments of the S/4HANA system due to development activities by users of the Client, or by users of other institutions, is excluded from technical support with the exception of a restore.

All technical inquiries and fault reports must be submitted via the SAP UCC ticket system except in the cases of malfunctions that impede operation. The Client may report these malfunctions using the hotline. Fault investigation/resolution will be performed by SAP UCC first and second level support. The error report may be sent to SAP SE Support if appropriate.

b. Application support

No application support is provided for this TLE. Application support is thus specific excluded from the TLE product and performance specifications.

11. Minimum contract term, notice period

The TLE Usage Agreement runs for one year from the date notified by SAP UCC for access activation for the relevant TLE; for more details on this and on the service start date, see the Framework Agreement.

The contract term is automatically extended by an additional year if the TLE Usage Contract is not terminated on six months’ notice to the end of the term. Notice of termination must be given in text form; see the Master Agreement.

A desired activation date may be designated when ordering. SAP UCC will attempt to comply with any such request; see the Framework Agreement under “Commencement of Performance.”

12. Remuneration

For the provision of the TLE Client shall pay SAP UCC a fee that is dependent upon the number ordered in accordance with the following summary following receipt of a verifiable invoice. See Framework Agreement for more detailed information on remuneration, ancillary costs, and payment.

<table>
<thead>
<tr>
<th>Number of TLE/client for Enterprise Management with Global Bike in SAP S/4HANA 2020 - shared with development rights</th>
<th>Subscription period</th>
<th>Remuneration (net)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 year</td>
<td>EUR 4,000</td>
</tr>
</tbody>
</table>
13. Privacy Notice

a. General provisions

SAP UCC provides Client a privacy notice that is available at the following SAP UCC website on a voluntary and gratuitous basis as a non-binding proposal that is subject to the exclusion of any warranties:

https://portal.ucc.ovgu.de/data-privacy-tle

The Client is obliged to have privacy notice subject to legal review prior use. SAP UCC does not provide legal advice. The Client is also obliged to provide the “Privacy Notice for a Teaching and Learning Environment (TLE)” to users (e.g. students). Additional details concerning testing, modification and integration are set out in the Framework Agreement.

The Client is obliged to observe the basic principles of data minimization in accordance with the GDPR and shall ensure that, as far as possible, no personal data is entered in the TLE subject to its use.

b. Product-specific features that supplement the Contract Data Processing Framework Agreement

- None -