Remote Connectivity Infrastructure

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Presentation Agenda - Remote Connectivity Infrastructure

- **Introduction**
- **General Architecture**
  - SAProuter
  - Available connection types
- **Main Connection Types in Operation**
- **Remote Connectivity in Operation**
- **IKEv2 migration project**
- **How-to Guide**
- **partner remote connectivity manager**
- **Summary**

Enabling the SAP Control Center Framework for Hybrid Solutions

Innovation Control Center

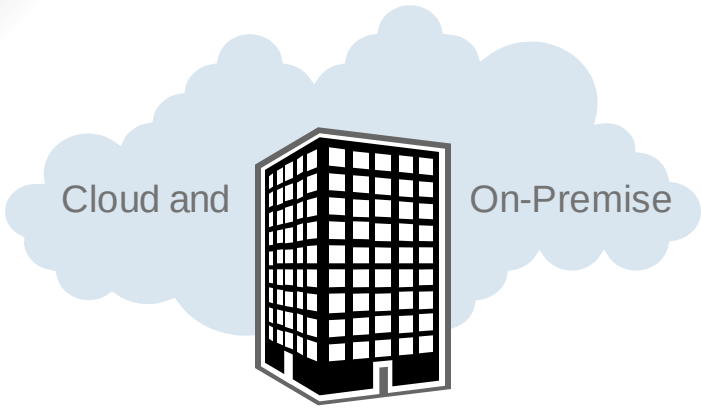
- Build SAP like a factory
  - Reduce implementation cost
  - Reduce time to value
  - Smoothen transition to operations
  - Avoid unnecessary modifications
  - Integration Validation

Operations Control Center

- Run SAP like a factory
  - Improve business continuity
  - Higher degree of automation
  - Better business performance
  - Reduce total cost of operations

Mission Control Center

- Enhanced Back Office
  - Direct access to unmatched expertise from SAP
  - Leveraging the entire SAP ecosystem
  - Faster issue resolution



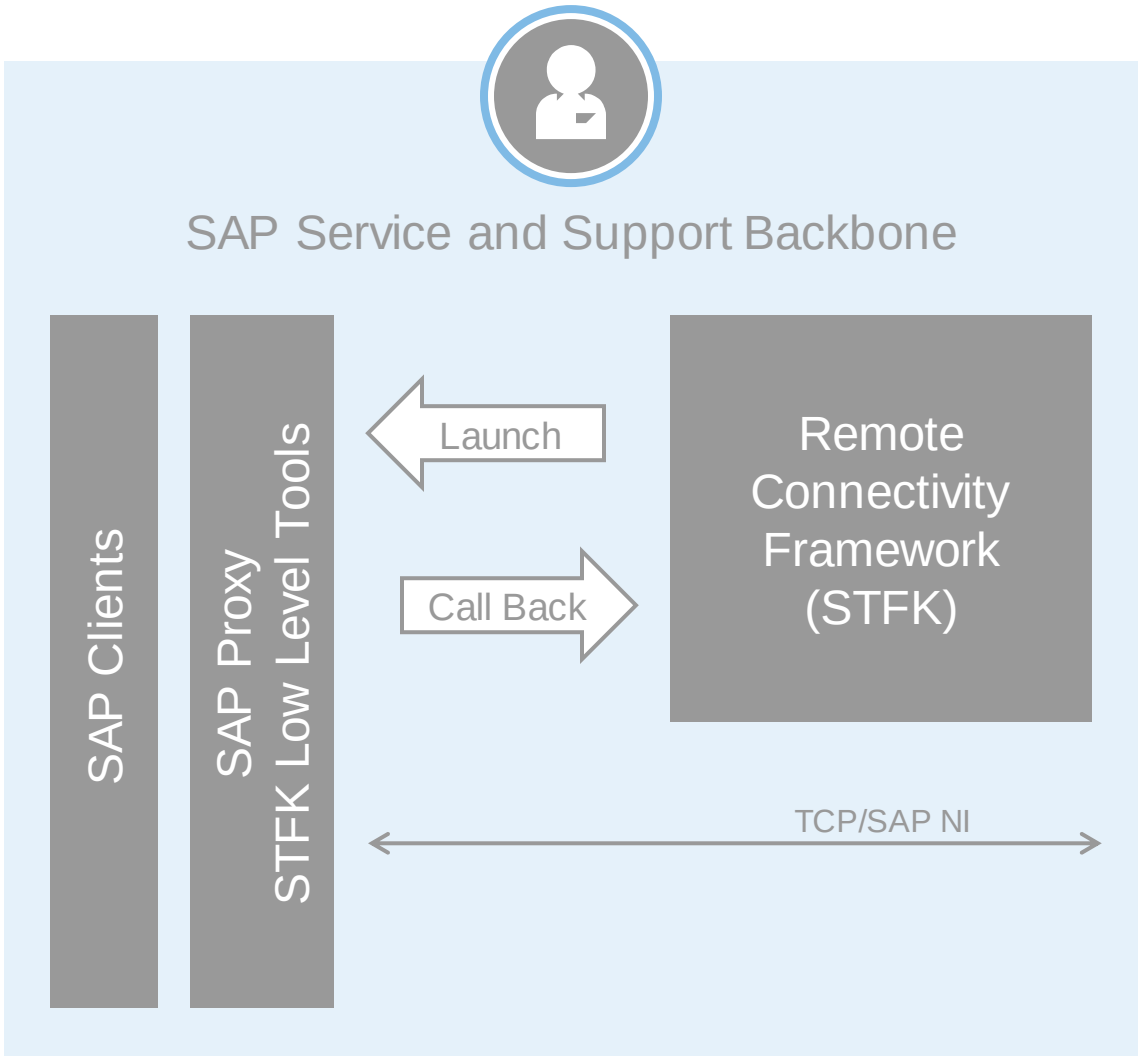
Customer

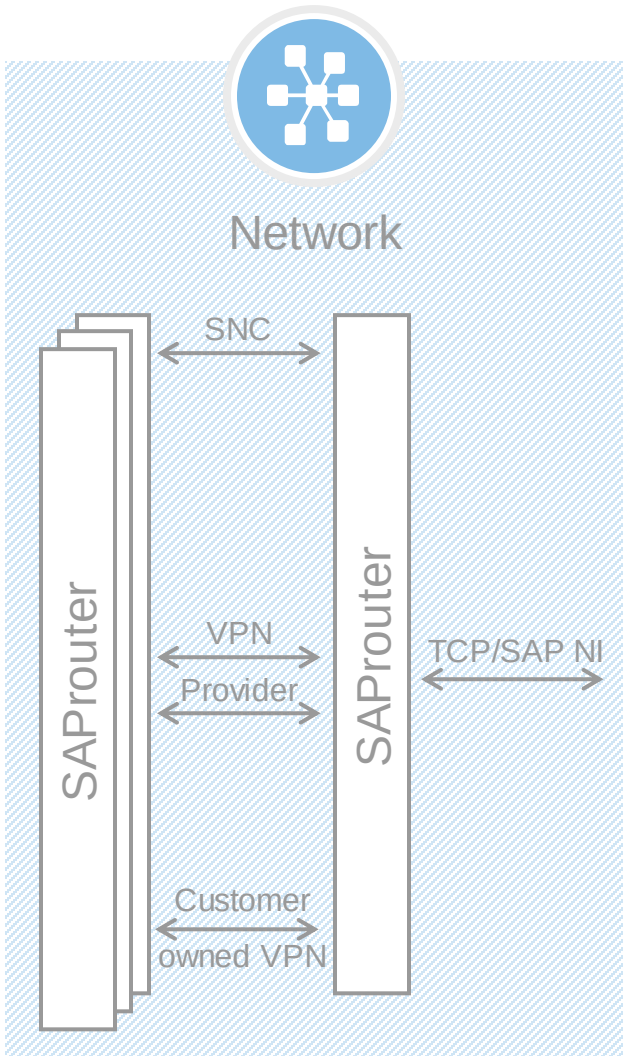
SAP

General Architecture

Remote Connectivity Infrastructure

Simplified Representation of the SAP Service and Support Architecture





Customer Back-End

Application Server Farm

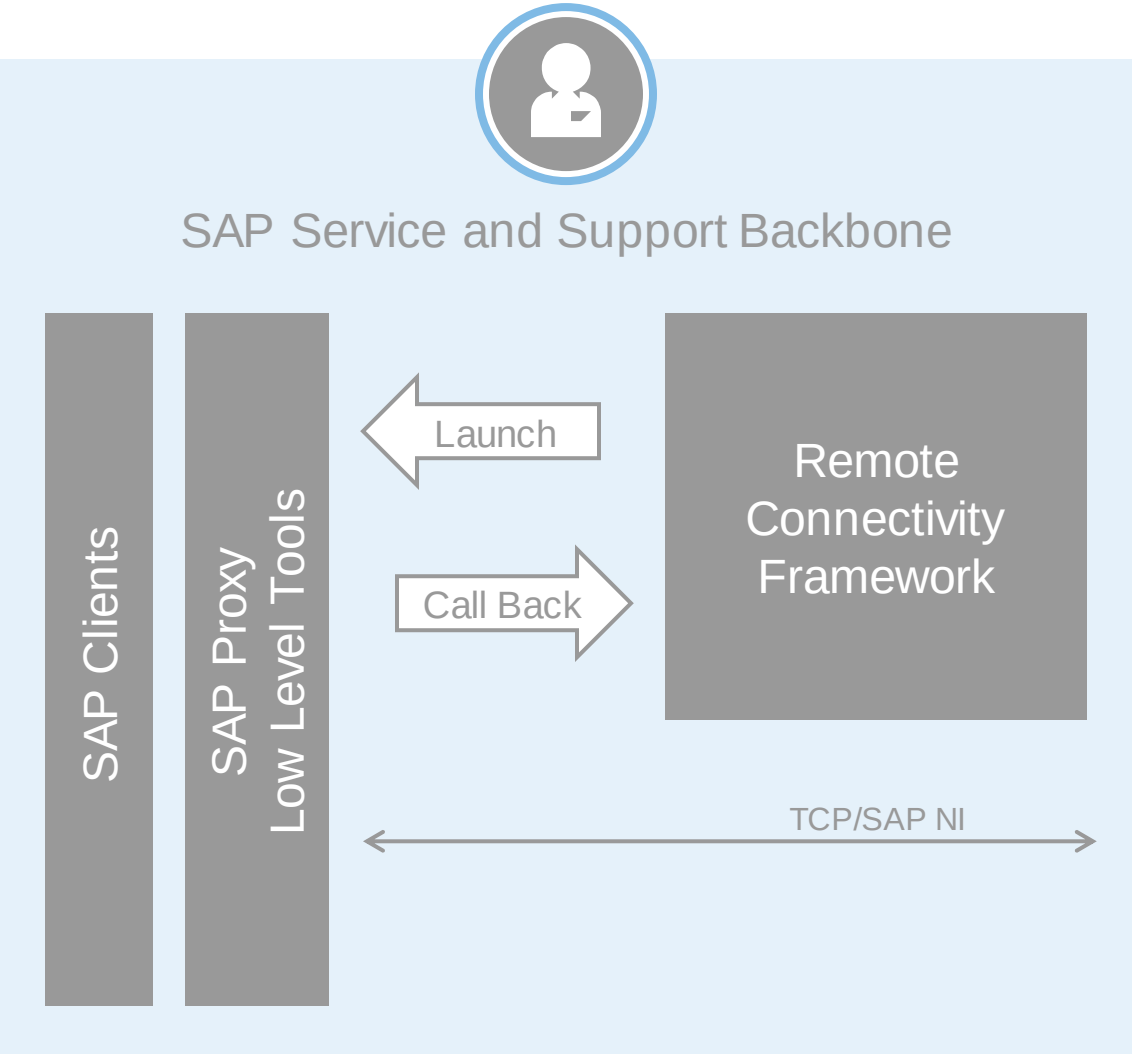
- Any Database Server
- SAP Web Application Server
- SAP HANA DB-Server
- WTS Server
- Citrix Server
- Telnet Server
- SSH Server
- SBOB Server
- B1 Server
- Any TCP based server

Usage per Primary Remote Service Connection Type

- **SAPserv1** (Worldwide)
  VPN
- **SAPserv2** (Worldwide)
  SNC
- **SAPserv3** (EMEA):
  Service Provider
- **SAPserv4** (Americas)
  VPN
- **SAPserv5** (Japan)
  Service Provider
- **SAPserv7** (Asia Pacific)
  VPN
- **SAPserv9** (Asia Pacific)
  SNC

All **Service Provider** based connectivity is planned to be retired by end of 2025, please plan migration options. This will affect SAPSERV3, SAPSERV4 and SAPSERV5.

SAP Service and Support Architecture



– Customer system data from the SAP Support Portal will be replicated into the SAP Service and Support Backbone

– Remote logon credentials can be easily maintained for each connection within the “Secure Area” in the SAP Support Portal

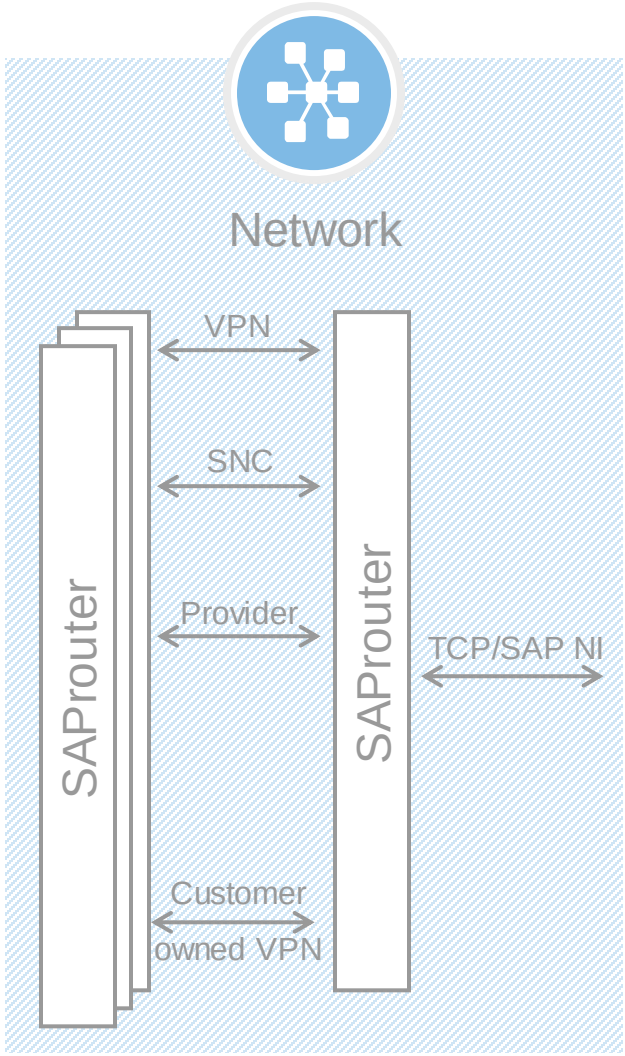
– SAP provides a detailed logging functionality the so called “system logbook” in the SAP Support Portal were the customer can see an overview of all remote access related entries for each maintained system

Simplified Representation of the SAP Remote Connectivity Options

– The SAProuter is a proprietary SAP software product which acts as an application level gateway

– Operates in the actual logical communication channel between the participating systems

– It is also used to monitor the communication between the customer server and the associated front-end computers



– Connections between SAProuters should be encrypted via SNC

– It simplifies the configuration of the different connection

– Multiple SAProuters can be used

– SAProuter connectivity can use an additional password

Remote Support Delivery Architecture

– SAP provides approx. 40 different connection types for customers

– Use exactly the type of connection that is required to ensure a secure connection and thereby meet your security requirements

– System connections can be easily maintained and operated in the SAP Support Portal

Customer Back-End

Application Server Farm

- Any Database Server
- SAP Web Application Server
- SAP HANA DB-Server
- WTS Server
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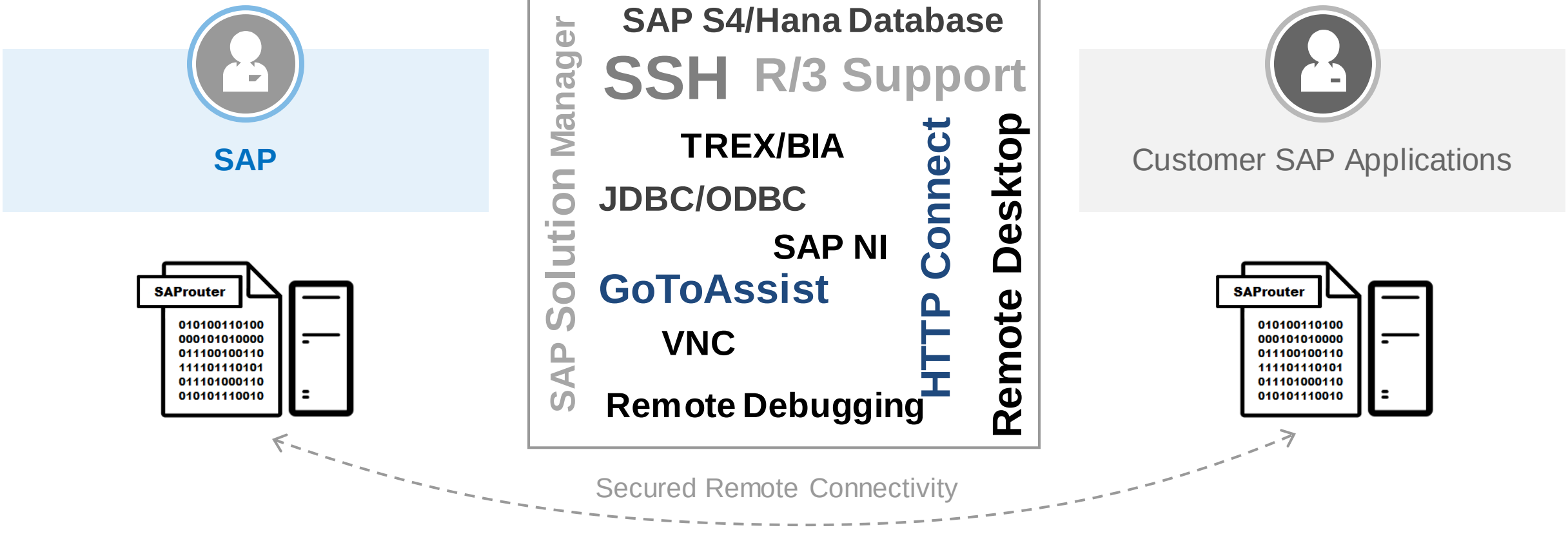
- SSH Server
- SBOB Server
- B1 Server
- Any TCP based server

Remote Connection Types



SAP provides approx. 40 different Remote Connection Types
to support our customers with the flexibility they need.

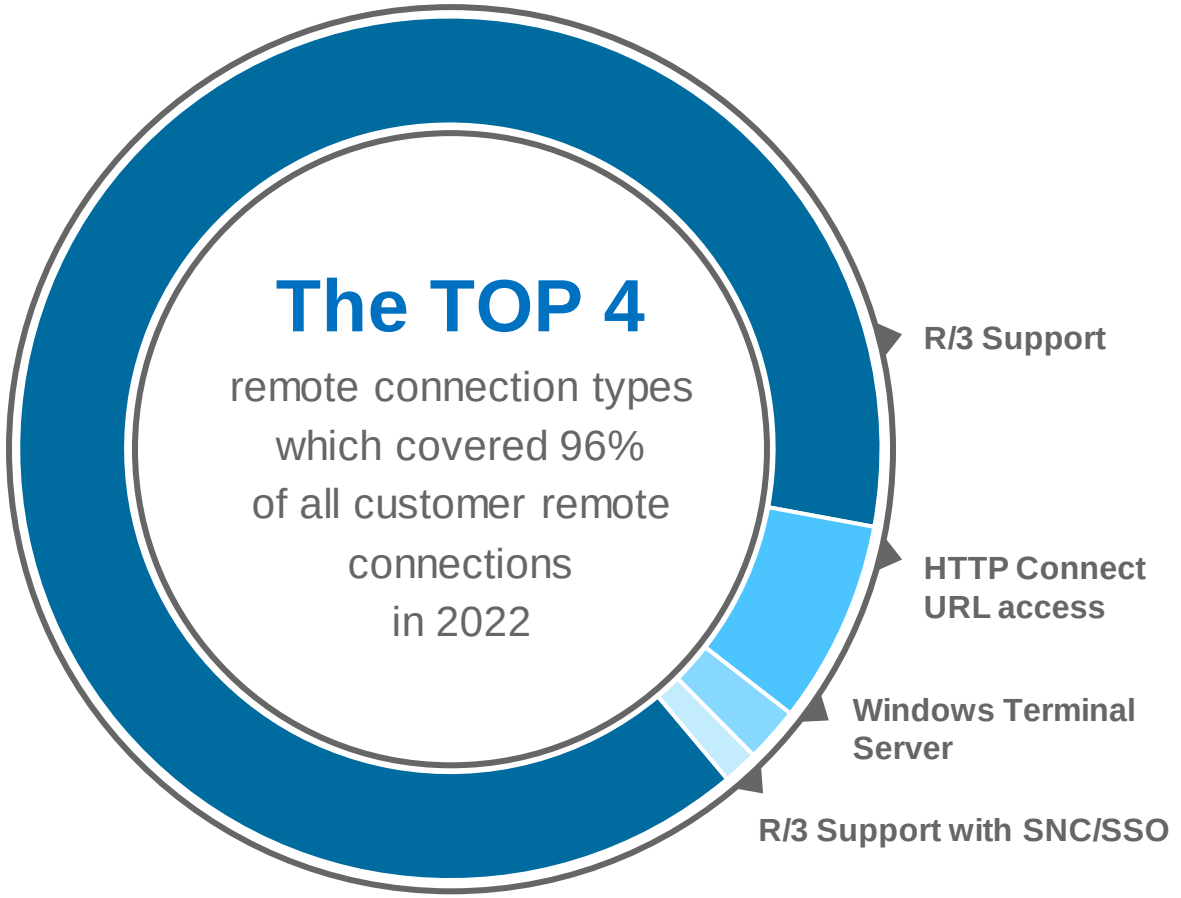
Main Connection Types in Operation

Remote Connectivity Infrastructure

Most Common Connection Types

- **We provide excellent support for our customers, with over 12 million remote connections in the last year. The ability to connect to almost all of our customers remotely worldwide at any time in a secure and compliant way is a major differentiator for SAP compared to its competitors.**

– R/3 Support	SAP Note 812732
– HTTP Connect – URL access	SAP Note 592085
– Windows Terminal Server	SAP Note 605795
– WTS Connect with NLA	SAP Note 1912318
– R/3 Support with SNC/SSO	SAP Note 2562127



Remote Connectivity in Operation

Remote Connectivity Infrastructure

Prerequisites for a Remote Connection

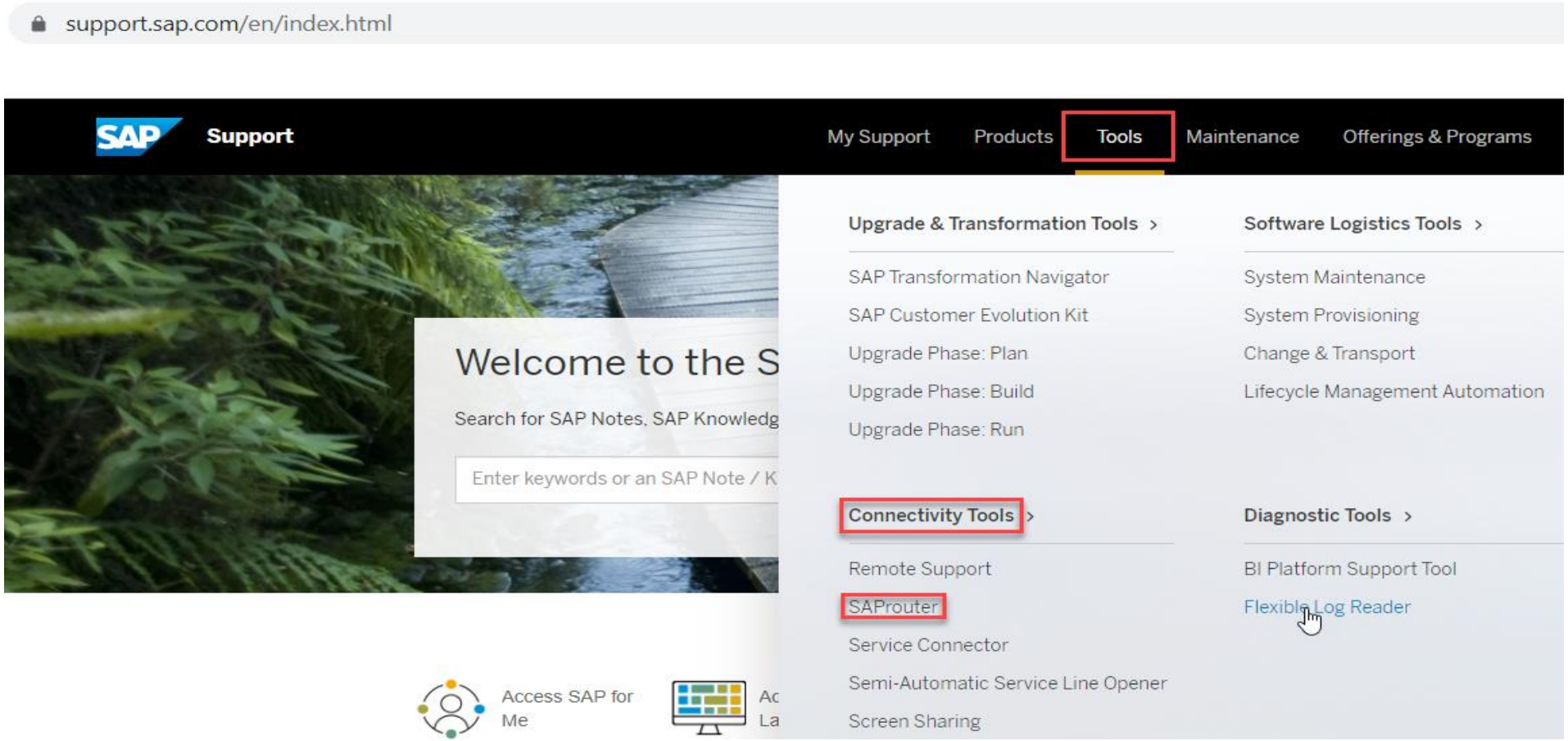
- In order to remotely connect to customer's infrastructure, there are some prerequisites that need to be addressed. While availability of master data is part of the migration process, all other steps require actions by the customer.

Prerequisites for remote connection and support:

- Master data must be available (e.g. customer number, contract data, product versions, installation numbers)
- SAProuter must be installed, configured and registered with SAP (SAP Note 28976)
- System data must be maintained and/or migrated
  - corresponding SAProuter(s), servers with host / IP address
- Remote connections must be configured
  - services must be activated / booked
  - configured with the right ports and opened

First Steps to Establish a Remote Support Connectivity to SAP (a)

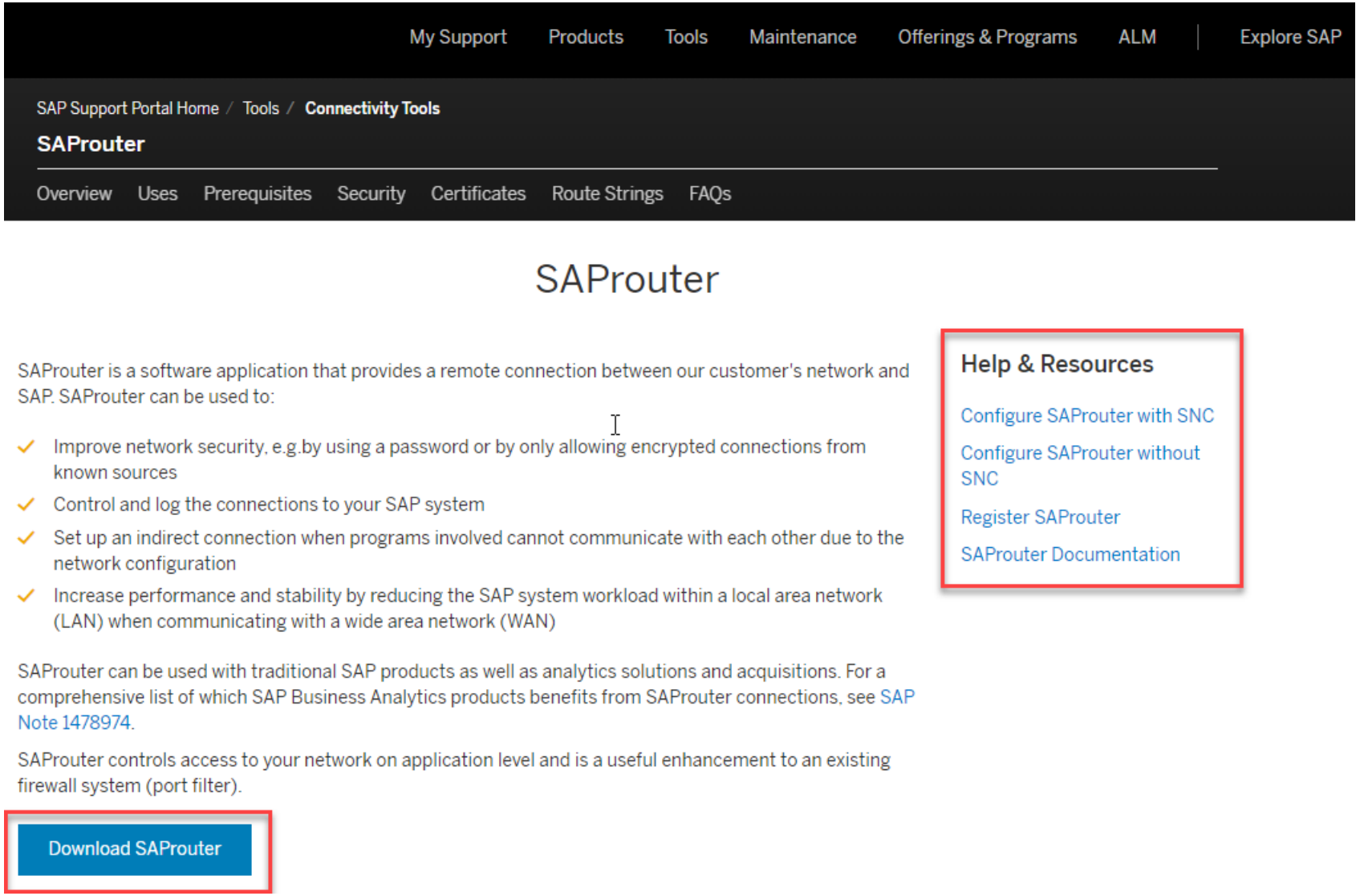
- Use existing or create a new S-User (see Appendix) for the SAP Support Portal (https://support.sap.com).
- Select “Tools” → “Connectivity Tools” → “SAProuter” to navigate to the SAProuter installation package.



First Steps to Establish a Remote Support Connectivity to SAP (b)

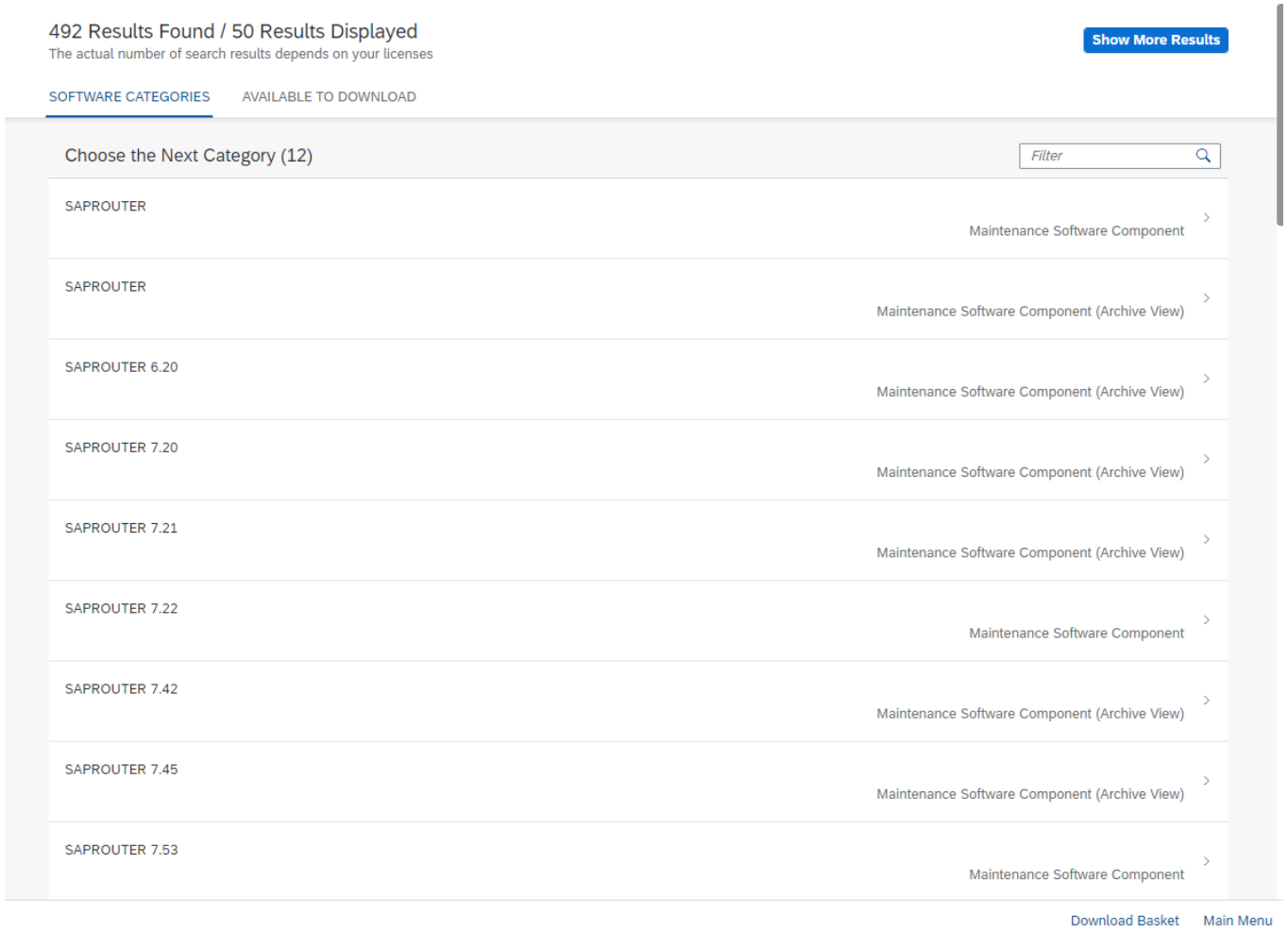
- Select the “Download SAProuter” button on the right side of the screen.

- Find SAProuter Tutorials and How-To-Guides at Help & Resources



First Steps to Establish a Remote Support Connectivity to SAP (c)

- After selecting the “Download SAProuter” button on the previous screen you will be forwarded to the download repository. There you have to select the operation system for which you would like to download and install the software.



IKEv2 migration

Remote Connectivity Infrastructure

IKEv2 migration – Overview C-Level

The German Federal Office for Information Security (BSI) has release a technical guideline regarding cryptographic mechanisms which consists of recommendations regarding key lengths and other parameters for the use of Internet Protocol Security (IPsec) and Internet Key Exchange (IKEv2).

Based on these recommendations, SAP plans to support our customers to make a timely transition within the next years to utilize IKEv2-based connectivity. Therefore, we already started in late 2018 migrating customers IPsec connections to IKEv2 due to the huge amount of migrations.

IKEv2 has many advantages, to name a few:

- provides better network attack resilience
- increases interoperability between different VPN products
- less overhead
- reduced SA delay
- faster rekey time

IKEv2 migration – Overview technical level

The German Federal Office for Information Security (BSI) has release a technical guideline regarding cryptographic mechanisms which consists of recommendations regarding key lengths and other parameters for the use of Internet Protocol Security (IPsec) and Internet Key Exchange (IKEv2).

Please refer to the BSI website for the IKEv2 technical guideline:

German: https://www.bsi.bund.de/DE/Publikationen/TechnischeRichtlinien/tr02102/index_htm.html

English: https://www.bsi.bund.de/EN/Publications/TechnicalGuidelines/tr02102/tr02102_node.html

SAP Note 2800846 - Recommendations for the use of cryptographic mechanisms in the IPsec and IKE protocols (BSI TR-02102-3)

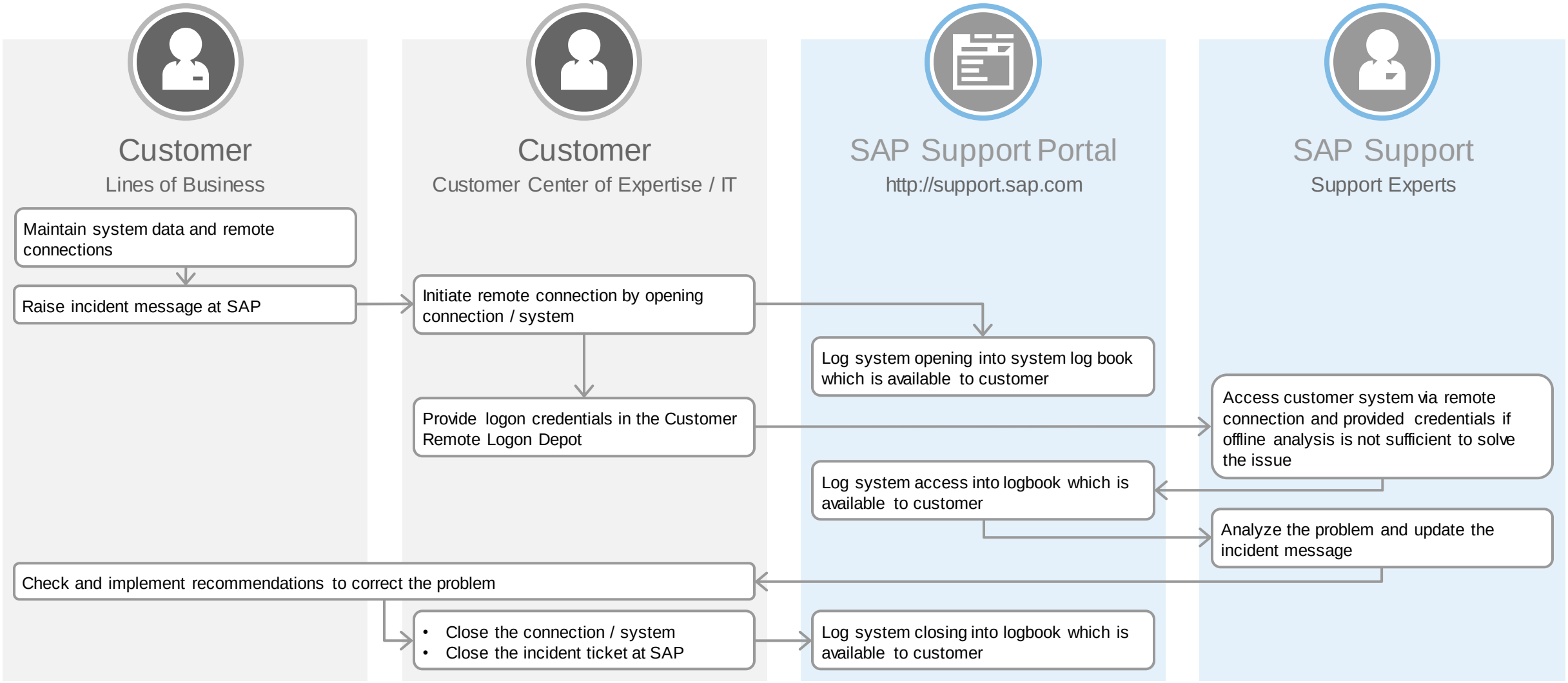
As the migration phase is planned to take at least three years time we would recommend to open an incident on component XX-SER-NET-NEW, to give us better resource planning capabilities and to optimize our support options for this project.

You can also get additional information as well as migration support via this component.

How-to Guide

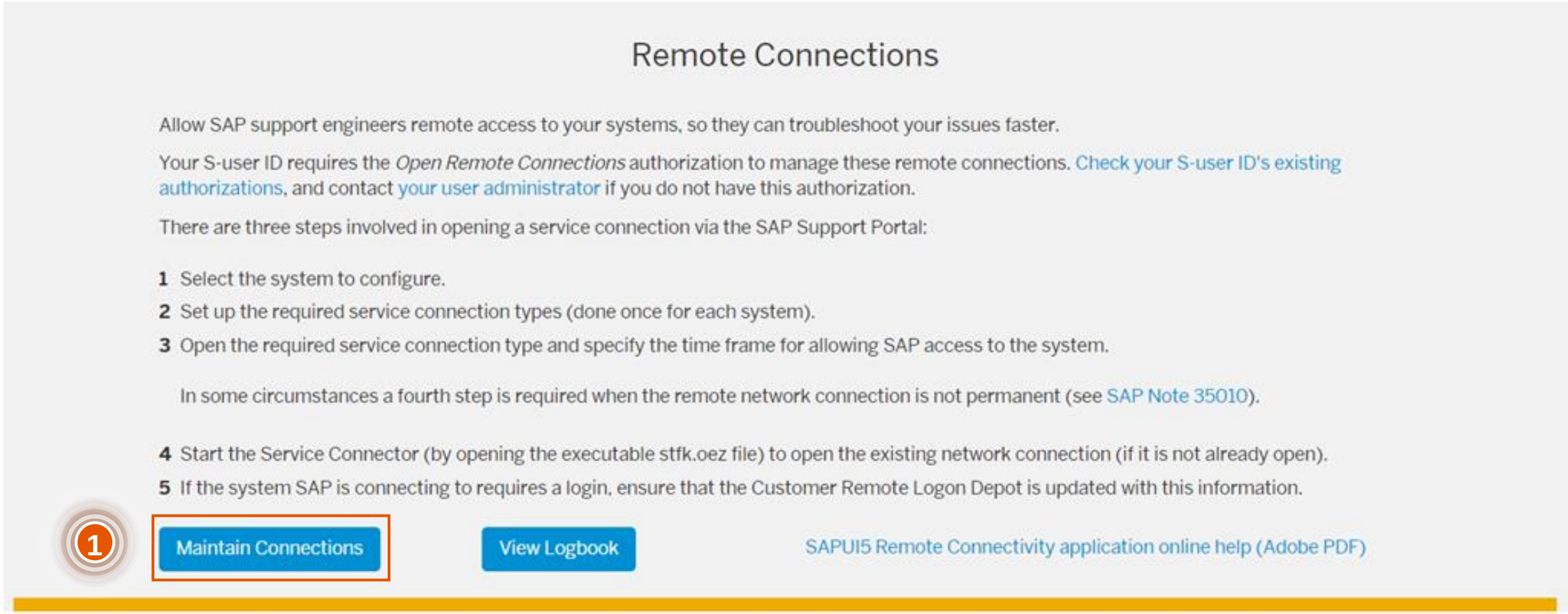
Remote Connectivity Infrastructure

Communication Paths – CCOE View



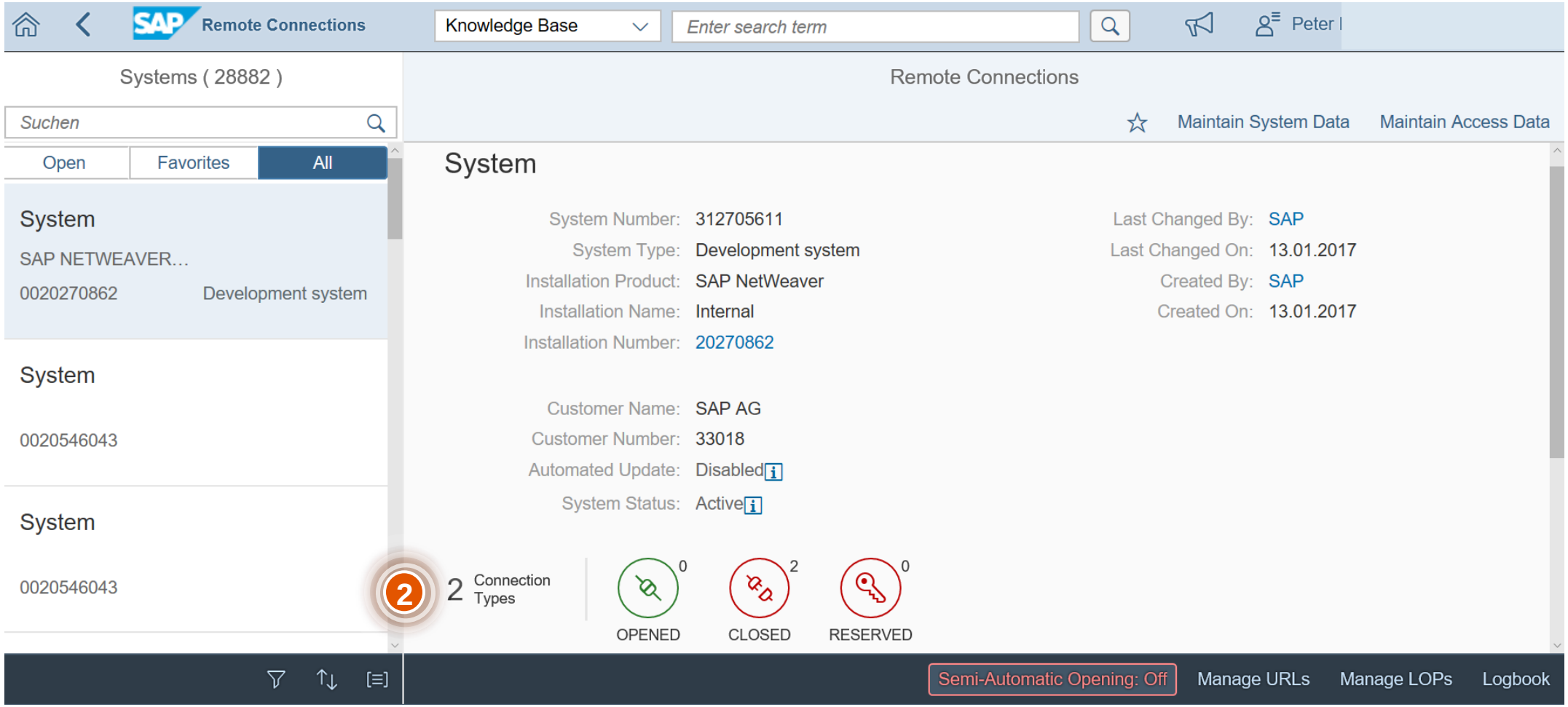
SAP Support Portal – Maintain Remote Connections (a)

1. Log on to SAP's Support Portal with a registered S-User. Then choose Tools -> Connectivity Tools -> Remote Support. Now select the tile "Maintain Connections":



Maintain Remote Connections (b)

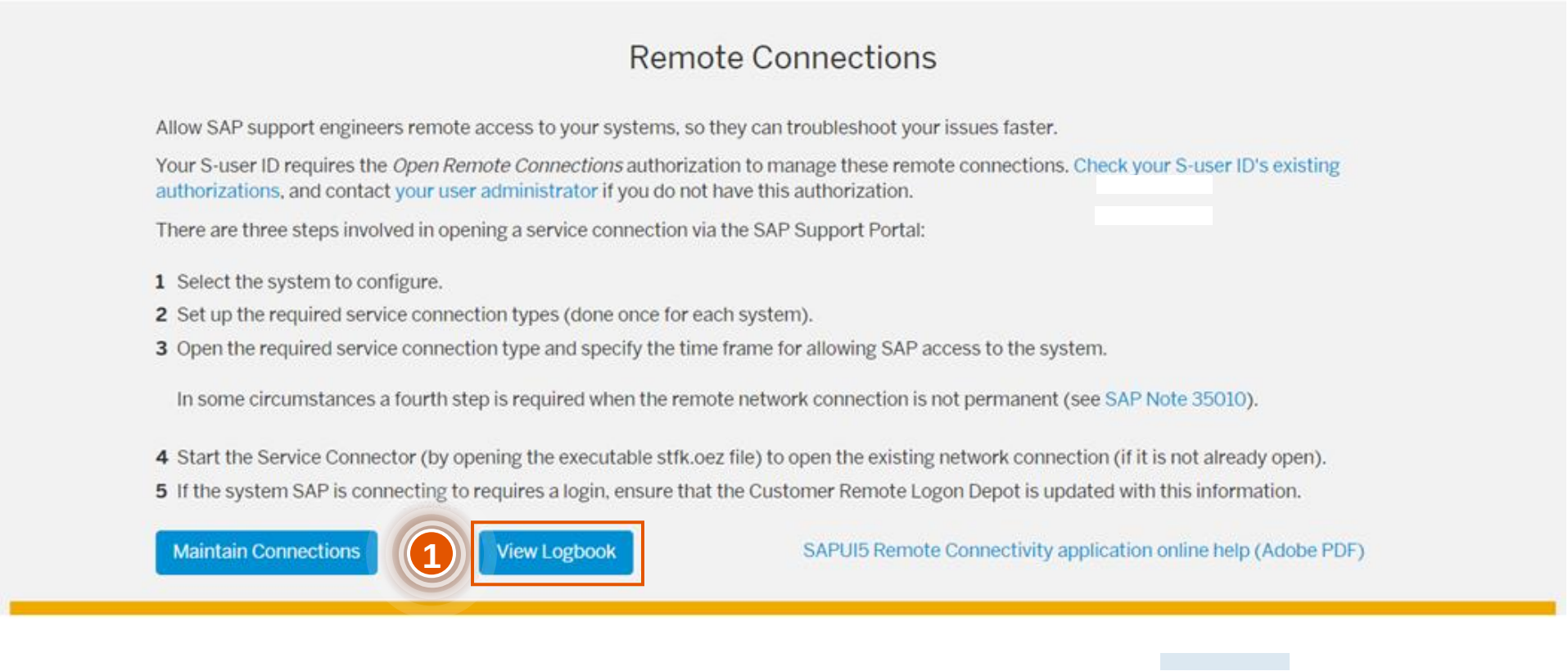
2. Remote Connections Overview:



SAP Support Portal Logbook (a)

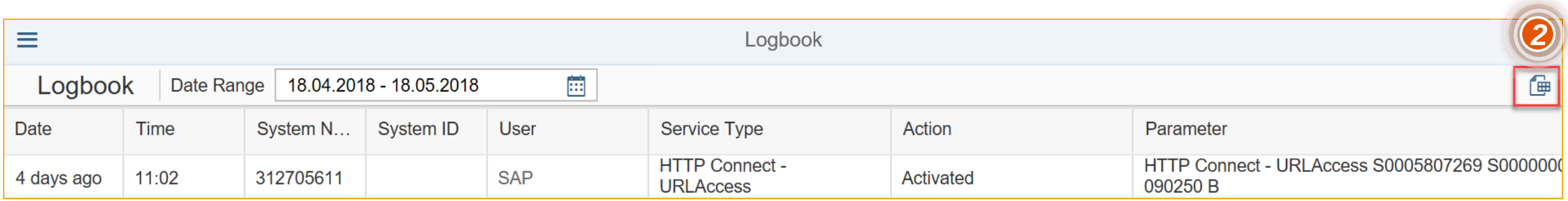
Choose Tools -> Connectivity Tools -> Remote Support. Select the tile “View Logbook”:

- To open / close of accepted service types
- To activate and configure service types



Exemplary Logbook Entries in SAP Support Portal

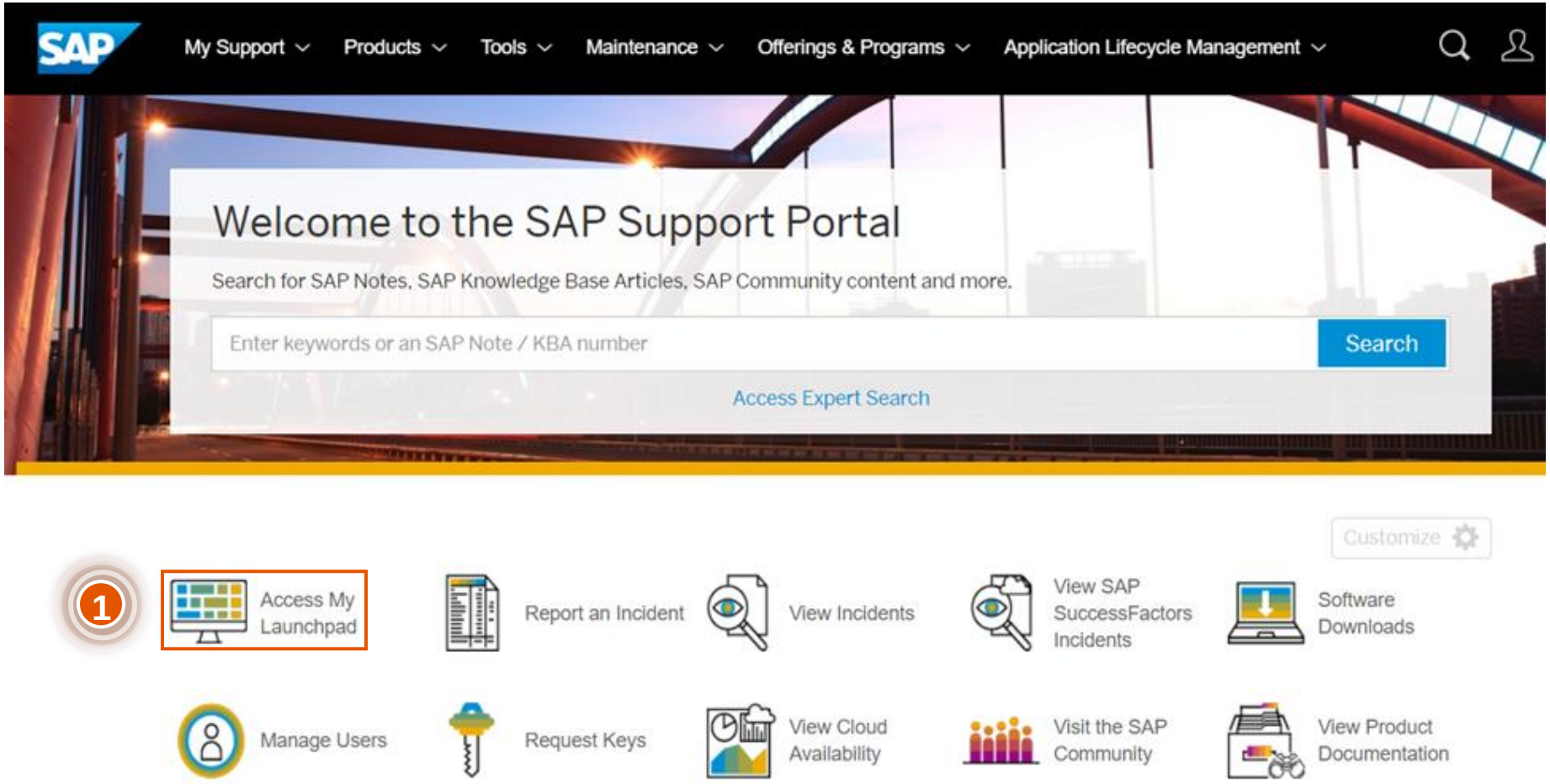
The log can be exported to an excel sheet for further processing via the export button:



- SAP logbook enables the customer to view detailed information's about all remote connectivity activities, like location, access reason, related incident number, and restriction applied for each SID maintained.
- The customer can download the system logbook to create reporting's for example
- SAP support users accessing customer systems will be anonymized in the external logbook as “SAP Support” and “SAP Support 3rd Party”.

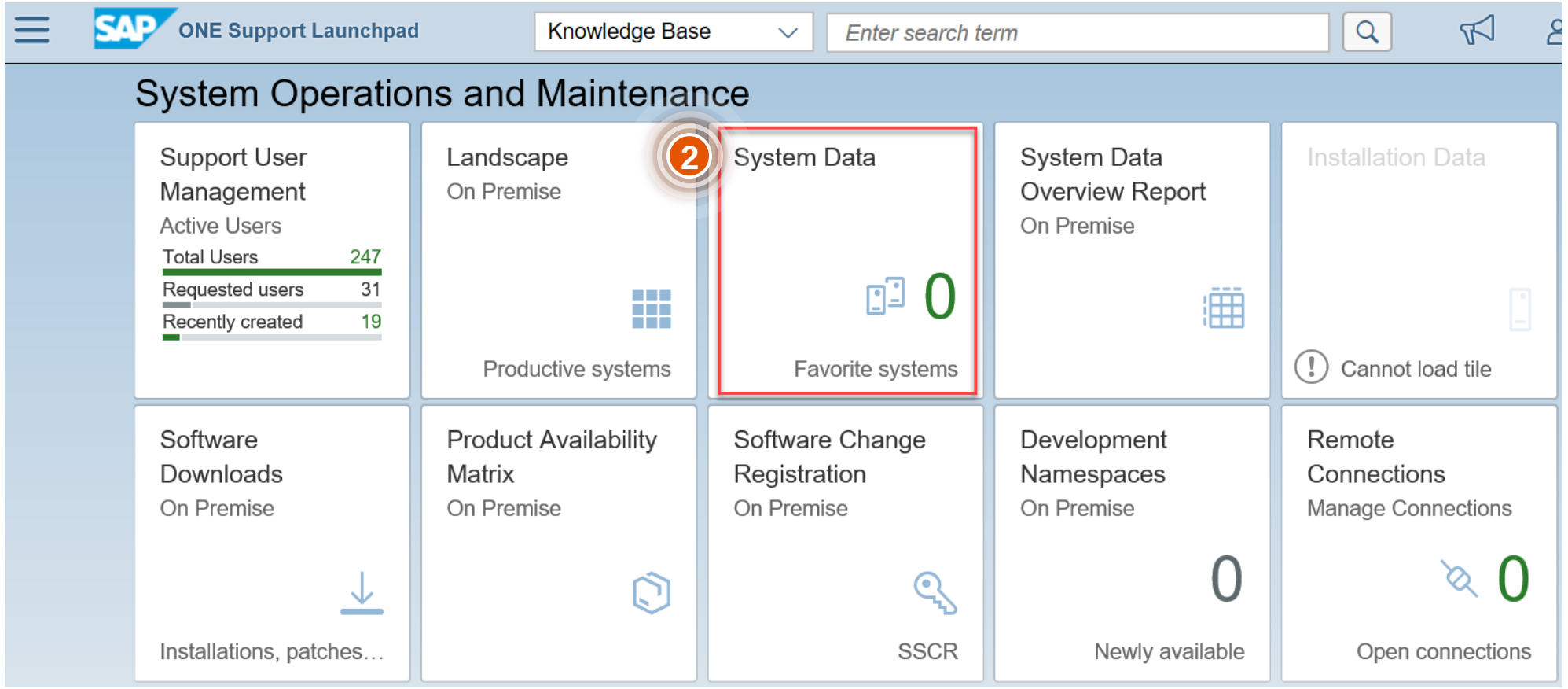
System Data Application via SAP Launchpad (a)

Log to SAP's Support Portal with a registered S-User, then select "Access my launchpad":



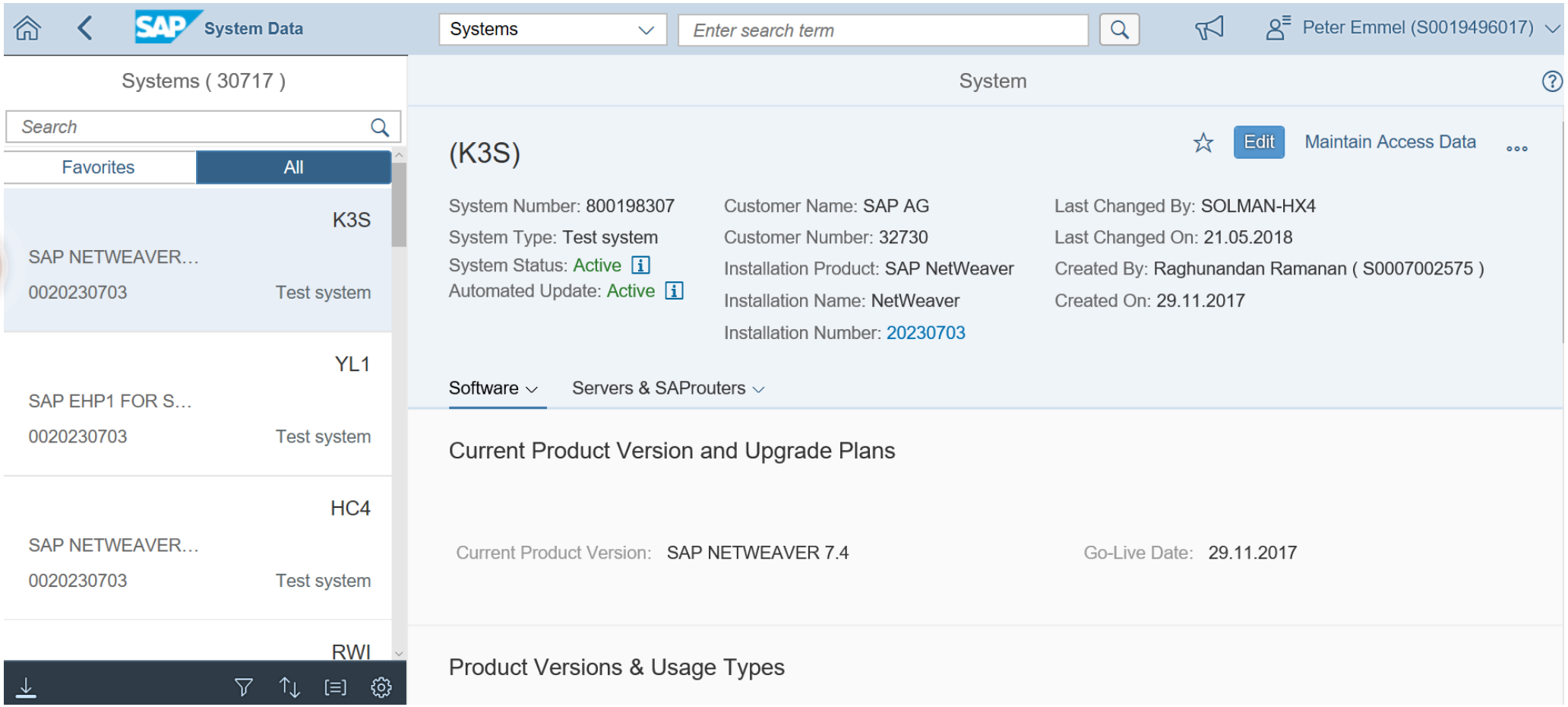
System Data Application in SAP Support Portal (b)

2. Select “System Data”:



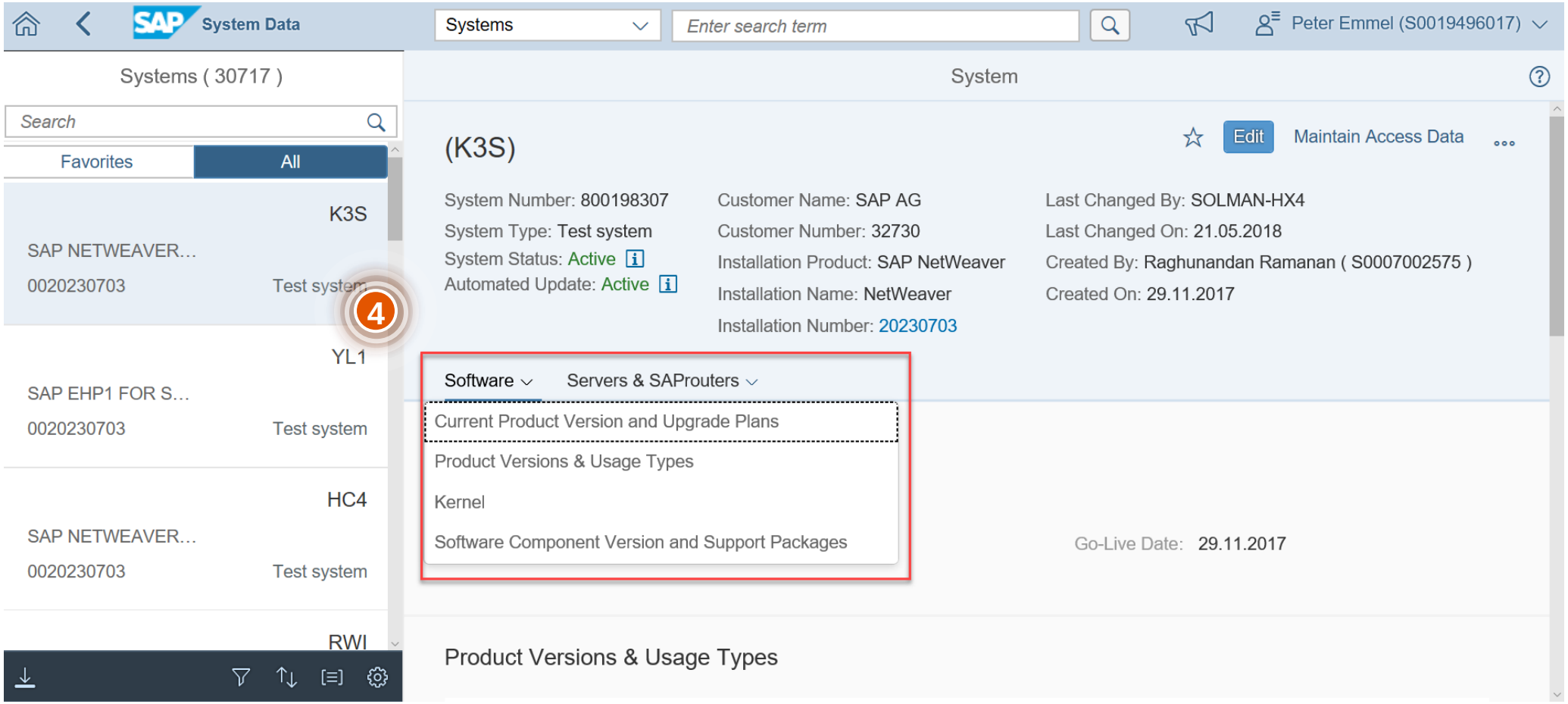
System Data Application in SAP Support Portal (c)

3. After selecting “System Data” you will be forwarded to the system ID overview page, where you can select already maintained systems or create new systems. In our example we select an already maintained system.



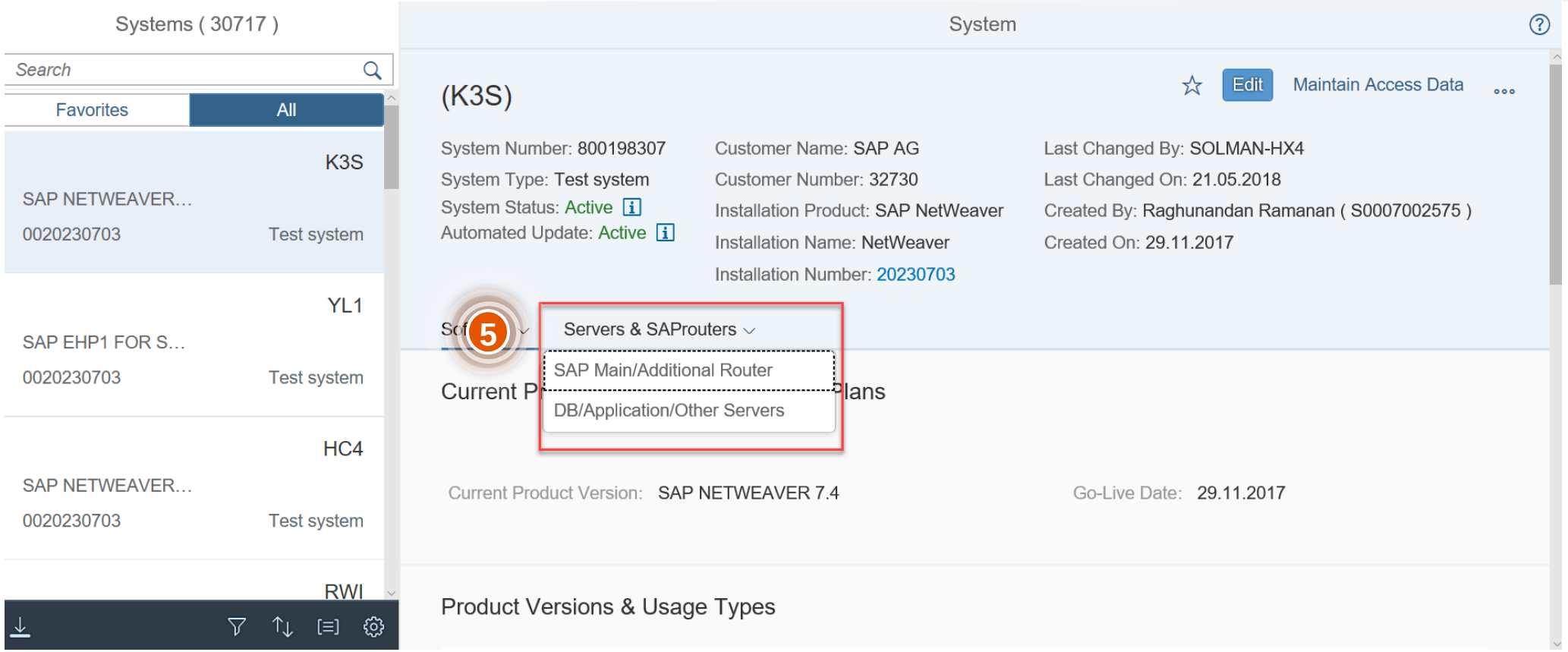
System Data Application in SAP Support Portal – Software (d)

4. In the this step we have to maintain product related data.



System Data Application in SAP Support Portal Servers (e)

5. In the this step we have to maintain server related data like hostname and IP address.



Summary

Remote Connectivity Infrastructure

Utilize SAP Remote Connectivity for SAP Partner Support

Partner Remote Connectivity Framework

- Connect Partners like SAP Support
  – Use standard SAP connectivity tools and global support infrastructure like SAP Support
  – Reduce implementation and maintenance costs
  – Support OnPremise and Cloud solutions
  – Partner Support seamless integrated into the SAP Service and Support Infrastructure

Partner Remote Connectivity Framework features:

- System Logbook
- Same security and compliancy controls as the SAP Remote Connectivity solution
- Global, secure and resilient infrastructure
- Trade sanction and Embargo framework

Further information:

SAP Note 3167682 - New Partner Remote Connectivity Framework
SAP Partner Remote Connectivity Framework Help Page

How You Benefit from the Remote Connectivity Infrastructure

- ★ Use SAP Support Portal and the SAP Solution Manager application management solution to **manage the operational tasks** involved in maintaining your SAP software system
- ★ Use standardized processes for **effective incident message processing** and gain access to a range of self-help tools that facilitate problem resolution
- ★ Make use of remote services that contribute to **maintaining the technical robustness** of your software systems
- ★ Enable remote analysis of your installations, in order to **speed up interaction with support**
- ★ **Avoid critical situations** by proactively sending information on your system status to SAP
- ★ Enables you to **keep your systems up-to-date**

Thank you page – end of presentation

Thank you.

Contact information:

SAP Remote Connectivity Program

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