



# Remote Connectivity Infrastructure

SAP  
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Public

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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

## Mission Control Center

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

## Operations Control Center

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





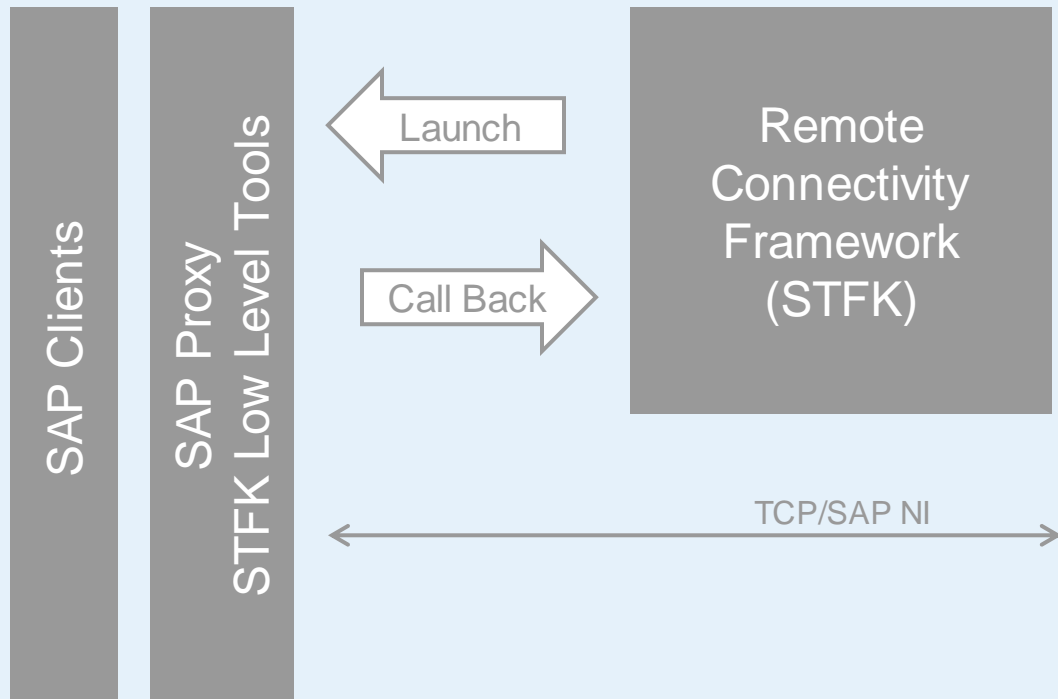
# General Architecture

Remote Connectivity Infrastructure

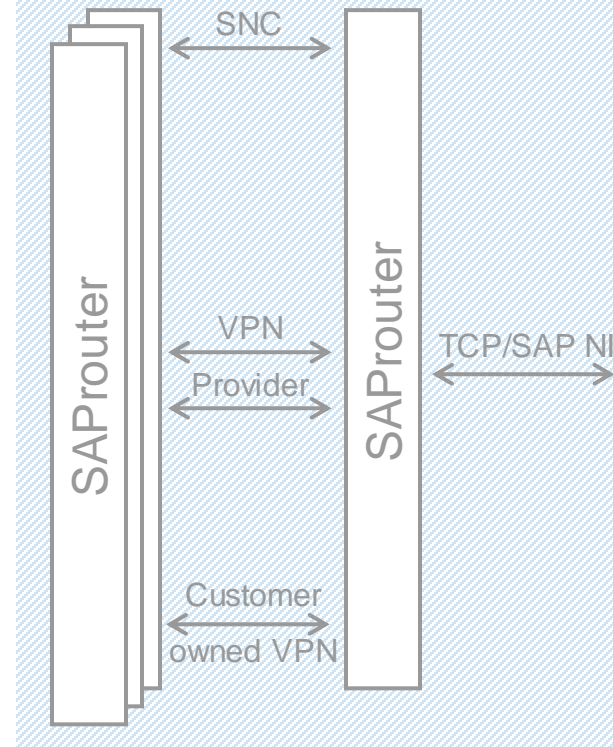
# Simplified Representation of the SAP Service and Support Architecture



## SAP Service and Support Backbone



## Network



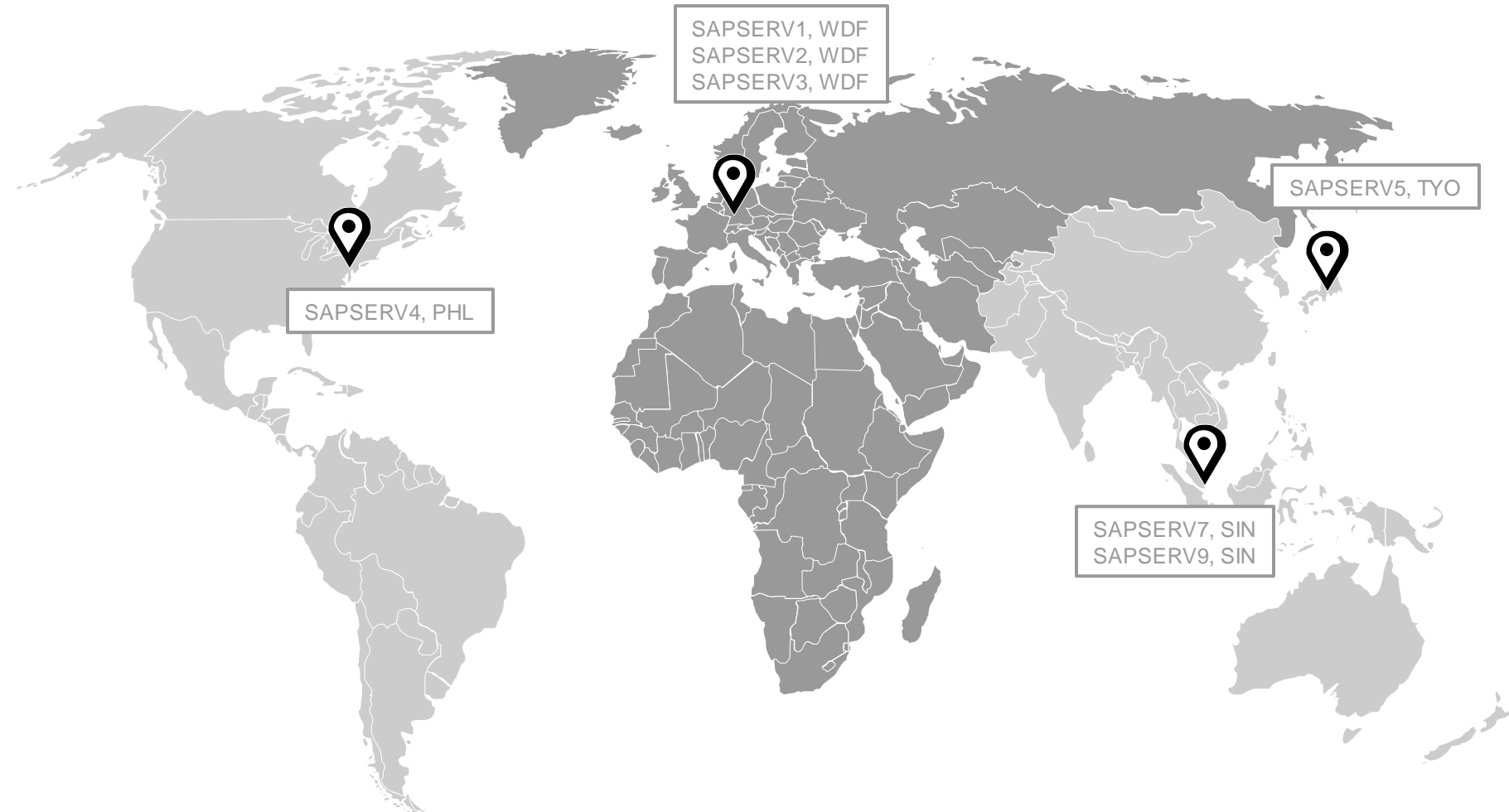
## Customer Back-End

### 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

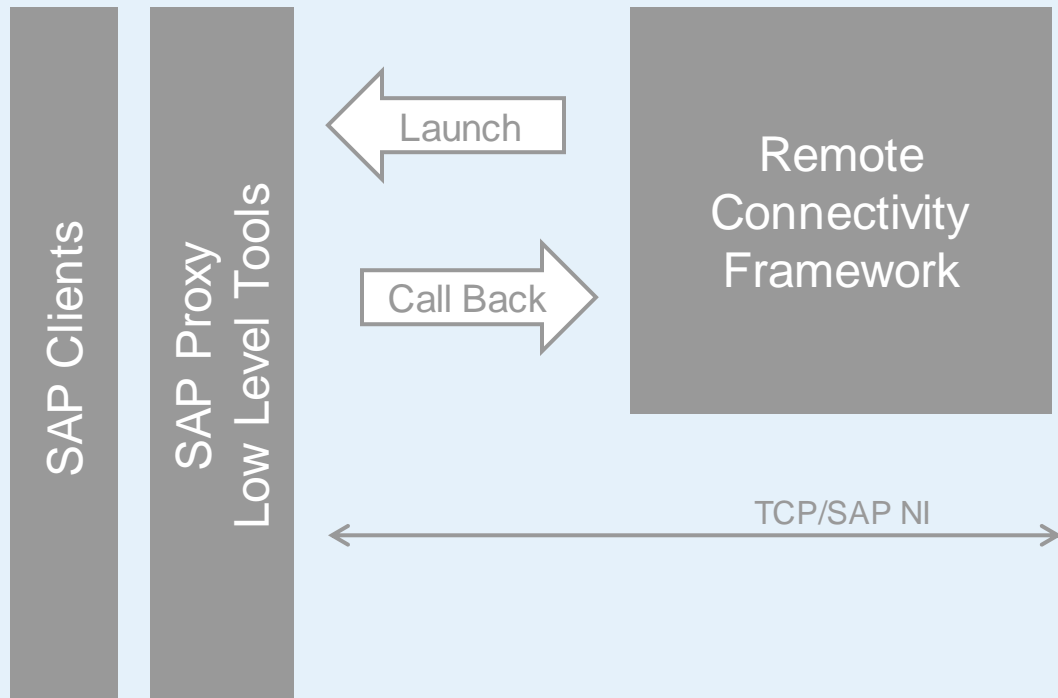


All **Service Provider** based connectivity is planned to be retired by end of 2025, please plan migration options. This will affect SAPSERV3, SAPSERV 4 and SAPSERV5.

# SAP Service and Support Architecture



SAP Service and Support Backbone

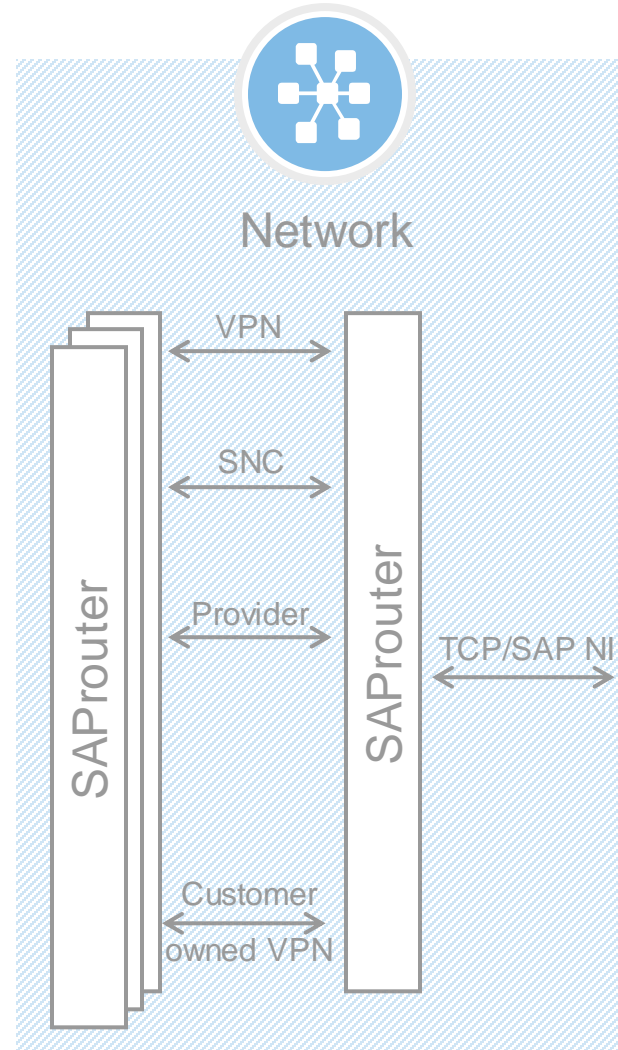


- Customer system data from the SAP Support Portal will be replicated into the SAP Service and Support Backbone
- Remote logon credentials can be easily maintained for each connection within the “Secure Area” in the SAP Support Portal
- SAP provides a detailed logging functionality the so called “system logbook” in the SAP Support Portal where 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

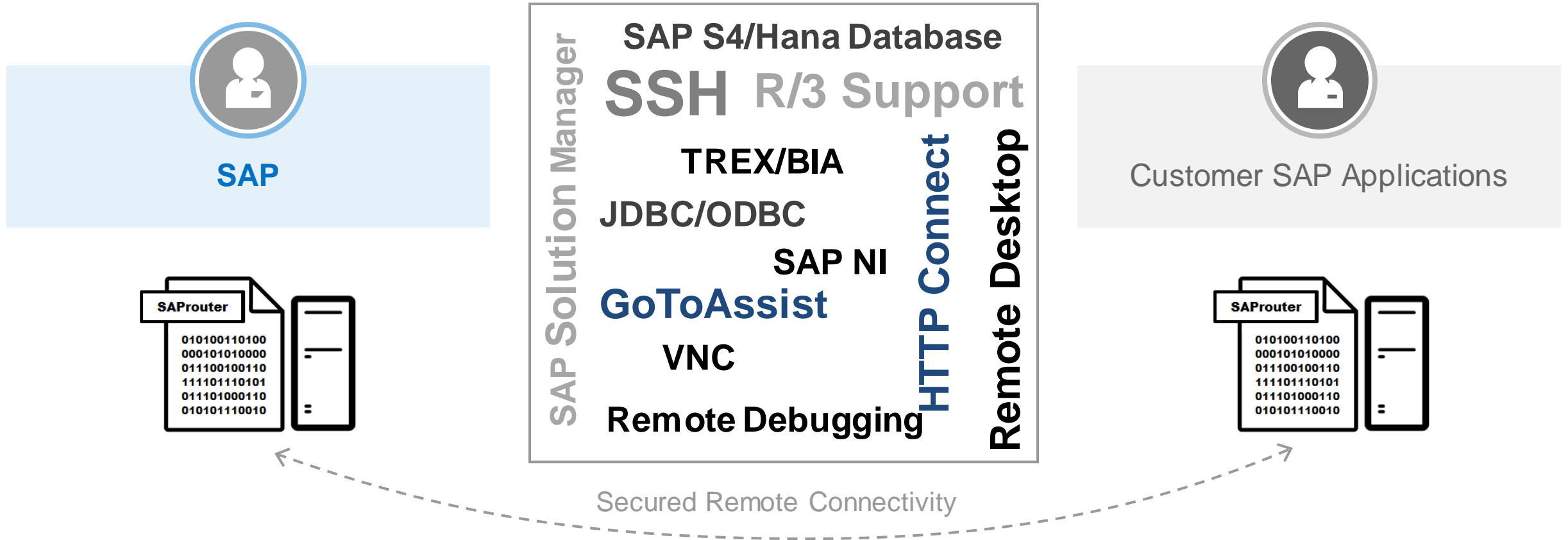
- SAP provides approx. 40 different connection types for customers
- Use exactly the type of connection that is required to ensure a secure connection and thereby meet your security requirements
- System connections can be easily maintained and operated in the SAP Support Portal



## Customer Back-End Application Server Farm

- Any Database Server
- SAP Web Application Server
- SAP HANA DB-Server
- WTS Server
- Citrix Server
- Telnet Server
- 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.



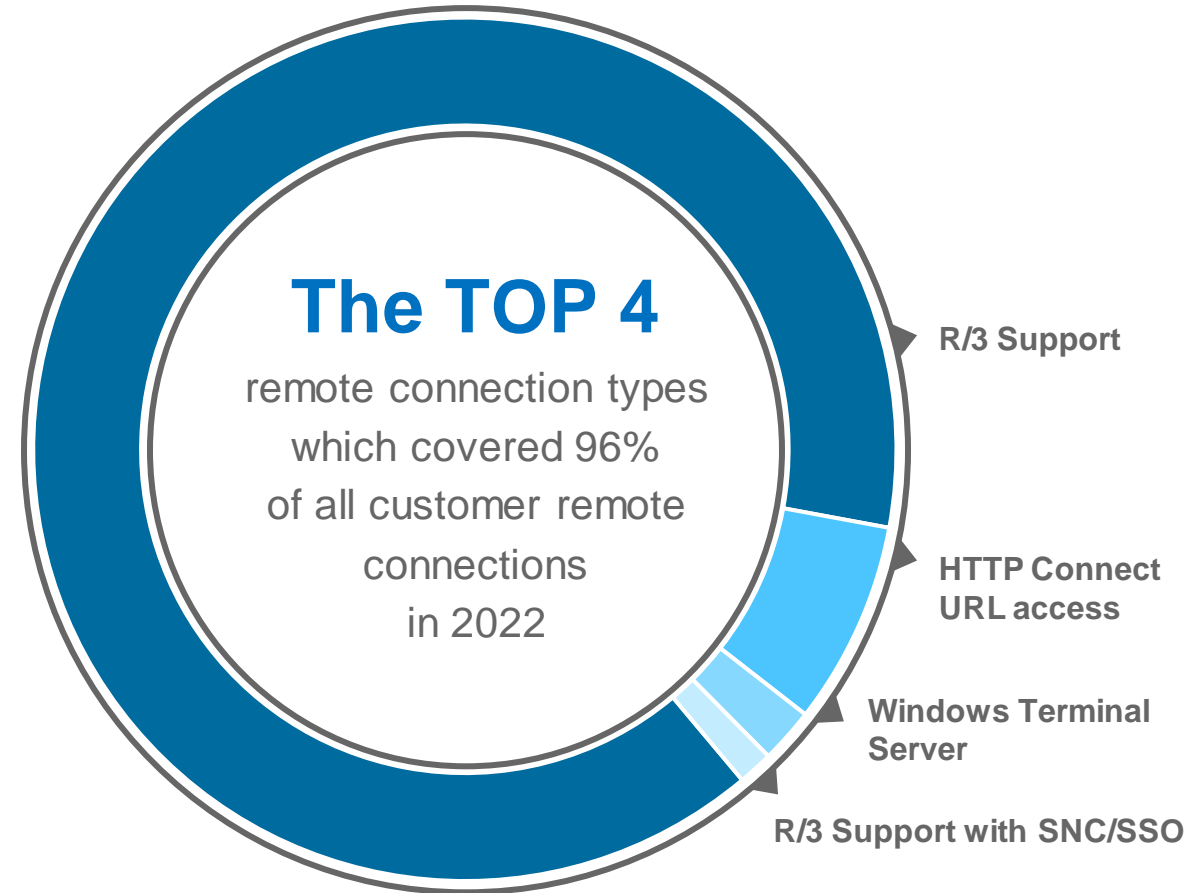
# Main Connection Types in Operation

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

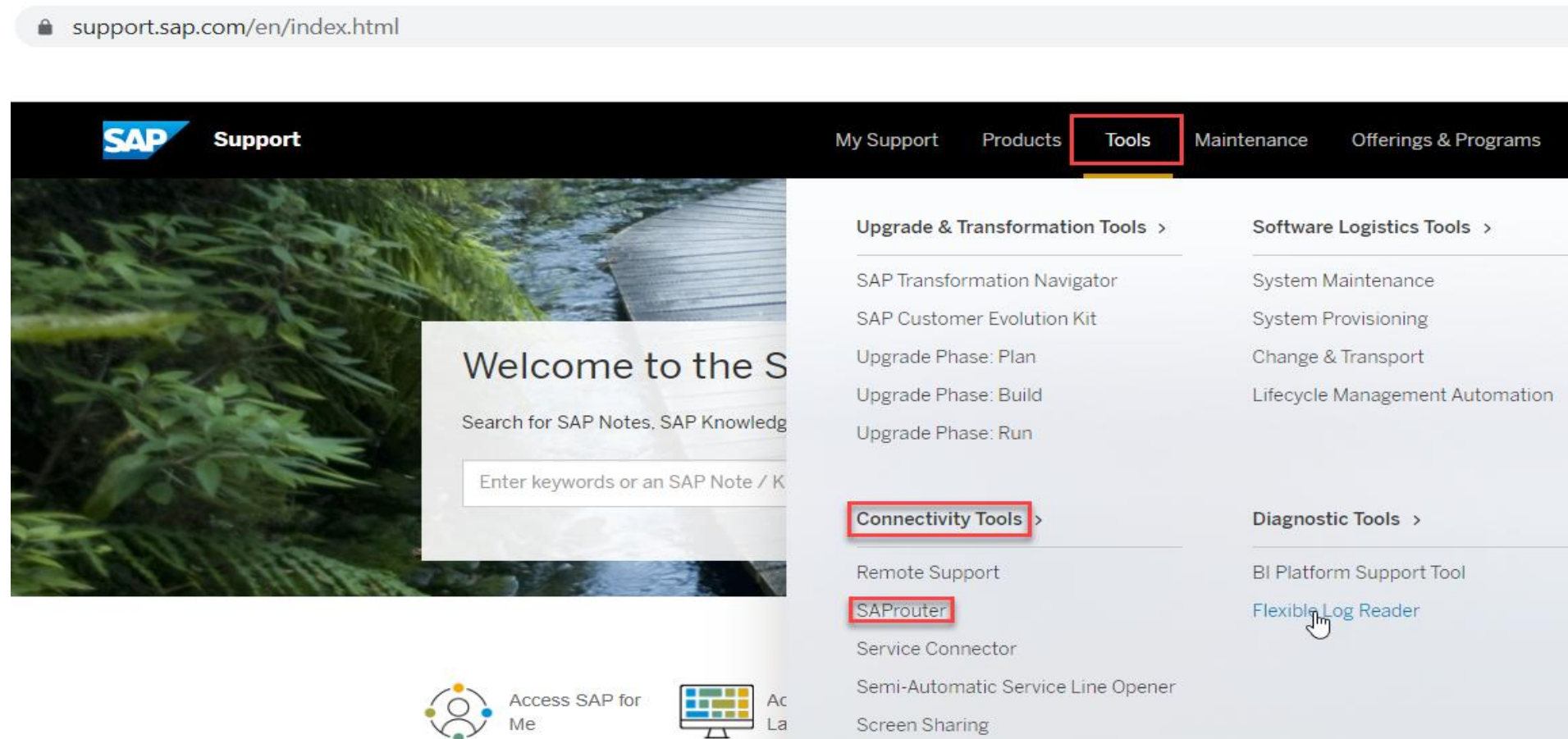
- In order to remotely connect to customer's infrastructure, there are some prerequisites that need to be addressed. While availability of master data is part of the migration process, all other steps require actions by the customer.

## 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.

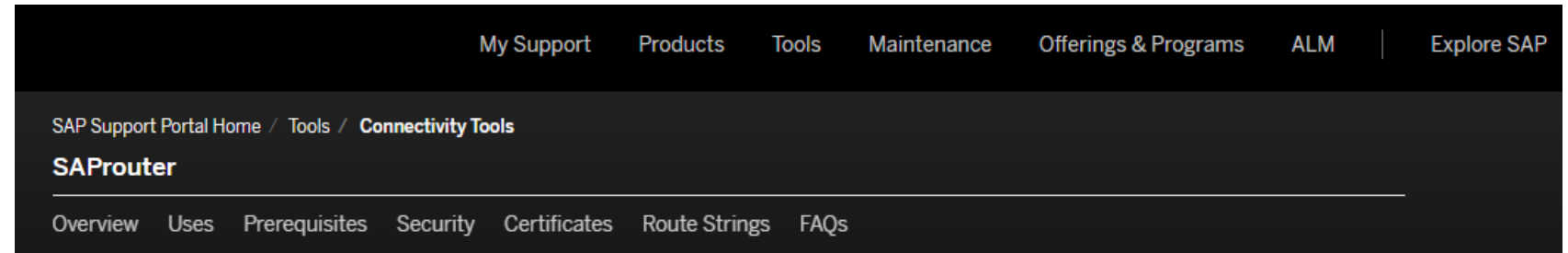




# First Steps to Establish a Remote Support Connectivity to SAP (b)

- Select the “[Download SAProuter](#)” button on the right side of the screen.

- Find SAProuter Tutorials and How-To-Guides at [Help & Resources](#)



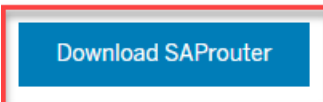
## SAProuter

SAProuter is a software application that provides a remote connection between our customer's network and SAP. SAProuter can be used to:

- ✓ Improve network security, e.g. by using a password or by only allowing encrypted connections from known sources
- ✓ Control and log the connections to your SAP system
- ✓ Set up an indirect connection when programs involved cannot communicate with each other due to the network configuration
- ✓ Increase performance and stability by reducing the SAP system workload within a local area network (LAN) when communicating with a wide area network (WAN)

SAProuter can be used with traditional SAP products as well as analytics solutions and acquisitions. For a comprehensive list of which SAP Business Analytics products benefits from SAProuter connections, see [SAP Note 1478974](#).

SAProuter controls access to your network on application level and is a useful enhancement to an existing firewall system (port filter).



# 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.

492 Results Found / 50 Results Displayed  
The actual number of search results depends on your licenses

[Show More Results](#)

[SOFTWARE CATEGORIES](#)   [AVAILABLE TO DOWNLOAD](#)

Choose the Next Category (12)

SAPROUTER	Maintenance Software Component	>
SAPROUTER	Maintenance Software Component (Archive View)	>
SAPROUTER 6.20	Maintenance Software Component (Archive View)	>
SAPROUTER 7.20	Maintenance Software Component (Archive View)	>
SAPROUTER 7.21	Maintenance Software Component (Archive View)	>
SAPROUTER 7.22	Maintenance Software Component	>
SAPROUTER 7.42	Maintenance Software Component (Archive View)	>
SAPROUTER 7.45	Maintenance Software Component (Archive View)	>
SAPROUTER 7.53	Maintenance Software Component	>



# IKEv2 migration

Remote Connectivity Infrastructure

# IKEv2 migration – Overview C-Level

The German Federal Office for Information Security (BSI) has released 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 released 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](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](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.

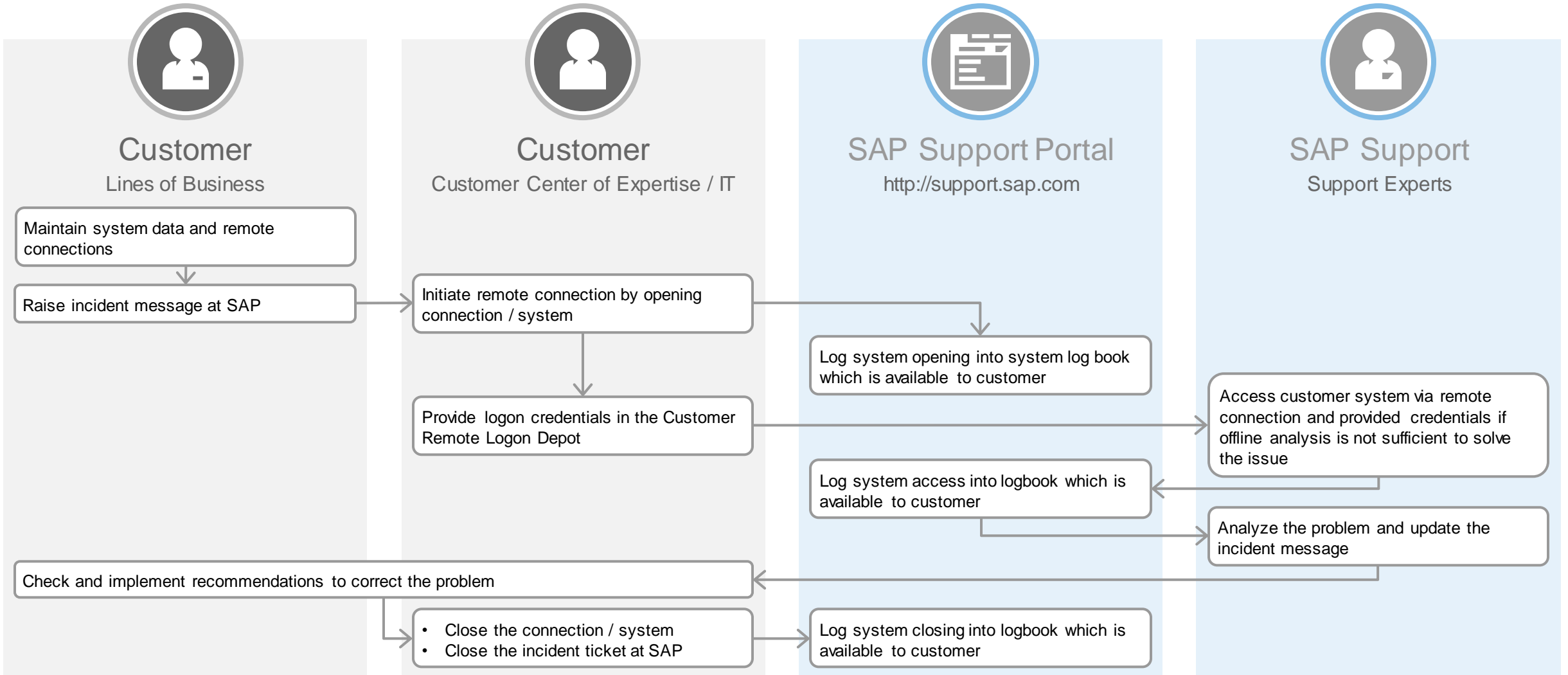


# How-to Guide

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":

Remote Connections

Allow SAP support engineers remote access to your systems, so they can troubleshoot your issues faster.

Your S-user ID requires the *Open Remote Connections* authorization to manage these remote connections. [Check your S-user ID's existing authorizations](#), and contact [your user administrator](#) if you do not have this authorization.

There are three steps involved in opening a service connection via the SAP Support Portal:

- 1 Select the system to configure.
- 2 Set up the required service connection types (done once for each system).
- 3 Open the required service connection type and specify the time frame for allowing SAP access to the system.

In some circumstances a fourth step is required when the remote network connection is not permanent (see [SAP Note 35010](#)).

- 4 Start the Service Connector (by opening the executable stfk.oez file) to open the existing network connection (if it is not already open).
- 5 If the system SAP is connecting to requires a login, ensure that the Customer Remote Logon Depot is updated with this information.

**1** Maintain Connections View Logbook

[SAPUI5 Remote Connectivity application online help \(Adobe PDF\)](#)



# Maintain Remote Connections (b)

## 2. Remote Connections Overview:

The screenshot displays the SAP Remote Connections overview page. The top navigation bar includes the SAP logo, 'Remote Connections', a 'Knowledge Base' dropdown, a search bar with the placeholder 'Enter search term', and a user profile for 'Peter I'. Below the navigation bar, the page is divided into two main sections: 'Systems ( 28882 )' on the left and 'Remote Connections' on the right. The 'Systems' section has a search bar with 'Suchen' and three tabs: 'Open', 'Favorites', and 'All'. The 'Remote Connections' section has a star icon and two links: 'Maintain System Data' and 'Maintain Access Data'. The main content area shows a list of systems on the left and detailed information for a selected system on the right. The selected system is 'SAP NETWEAVER...' with ID '0020270862' and is a 'Development system'. The details for this system include: System Number: 312705611, System Type: Development system, Installation Product: SAP NetWeaver, Installation Name: Internal, Installation Number: 20270862, Last Changed By: SAP, Last Changed On: 13.01.2017, Created By: SAP, Created On: 13.01.2017, Customer Name: SAP AG, Customer Number: 33018, Automated Update: Disabled, and System Status: Active. At the bottom of the system details, there is a 'Connection Types' section with three icons: 'OPENED' (green), 'CLOSED' (red), and 'RESERVED' (red). The counts for these types are 0, 2, and 0 respectively. A red circle with the number '2' is overlaid on the 'CLOSED' icon. The bottom navigation bar contains a filter icon, a refresh icon, a list icon, and a 'Semi-Automatic Opening: Off' button. Other buttons in the bottom bar include 'Manage URLs', 'Manage LOPs', and 'Logbook'.

Systems ( 28882 )

Suchen

Open Favorites All

System

SAP NETWEAVER...  
0020270862 Development system

System

0020546043

System

0020546043

Remote Connections

☆ Maintain System Data Maintain Access Data

System

System Number: 312705611  
System Type: Development system  
Installation Product: SAP NetWeaver  
Installation Name: Internal  
Installation Number: 20270862

Last Changed By: SAP  
Last Changed On: 13.01.2017  
Created By: SAP  
Created On: 13.01.2017

Customer Name: SAP AG  
Customer Number: 33018  
Automated Update: Disabled  
System Status: Active

2 Connection Types

0 OPENED 2 CLOSED 0 RESERVED

Semi-Automatic Opening: Off Manage URLs Manage LOPs Logbook

# 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

Remote Connections

Allow SAP support engineers remote access to your systems, so they can troubleshoot your issues faster.

Your S-user ID requires the *Open Remote Connections* authorization to manage these remote connections. [Check your S-user ID's existing authorizations](#), and contact [your user administrator](#) if you do not have this authorization.

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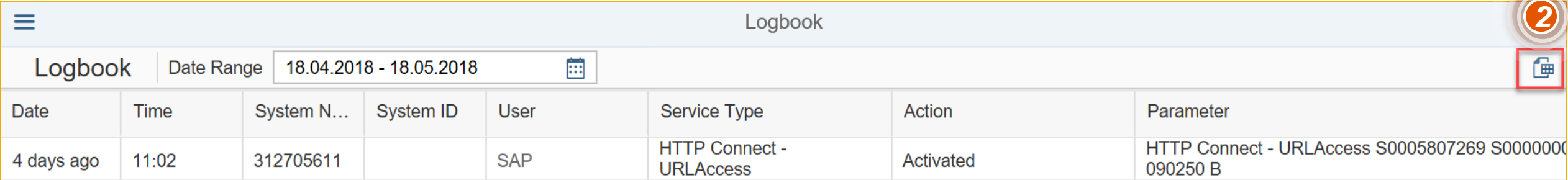
- 4 Start the Service Connector (by opening the executable stfk.oez file) to open the existing network connection (if it is not already open).
- 5 If the system SAP is connecting to requires a login, ensure that the Customer Remote Logon Depot is updated with this information.

[Maintain Connections](#) **1** [View Logbook](#)

[SAPUI5 Remote Connectivity application online help \(Adobe PDF\)](#)

# Exemplary Logbook Entries in SAP Support Portal

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



Date	Time	System N...	System ID	User	Service Type	Action	Parameter
4 days ago	11:02	312705611		SAP	HTTP Connect - URLAccess	Activated	HTTP Connect - URLAccess S0005807269 S000000090250 B

- 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":

The screenshot shows the SAP Support Portal interface. At the top, there is a navigation bar with the SAP logo and several menu items: "My Support", "Products", "Tools", "Maintenance", "Offerings & Programs", and "Application Lifecycle Management". A search icon and a user profile icon are in the top right corner. The main content area features a large banner with the text "Welcome to the SAP Support Portal" and a search input field with the placeholder text "Enter keywords or an SAP Note / KBA number". A "Search" button is located to the right of the input field. Below the banner, there is a grid of service tiles. The "Access My Launchpad" tile is highlighted with a red border and a "1" in a circle. Other tiles include "Report an Incident", "View Incidents", "View SAP SuccessFactors Incidents", "Software Downloads", "Manage Users", "Request Keys", "View Cloud Availability", "Visit the SAP Community", and "View Product Documentation". A "Customize" button with a gear icon is located in the top right of the grid.

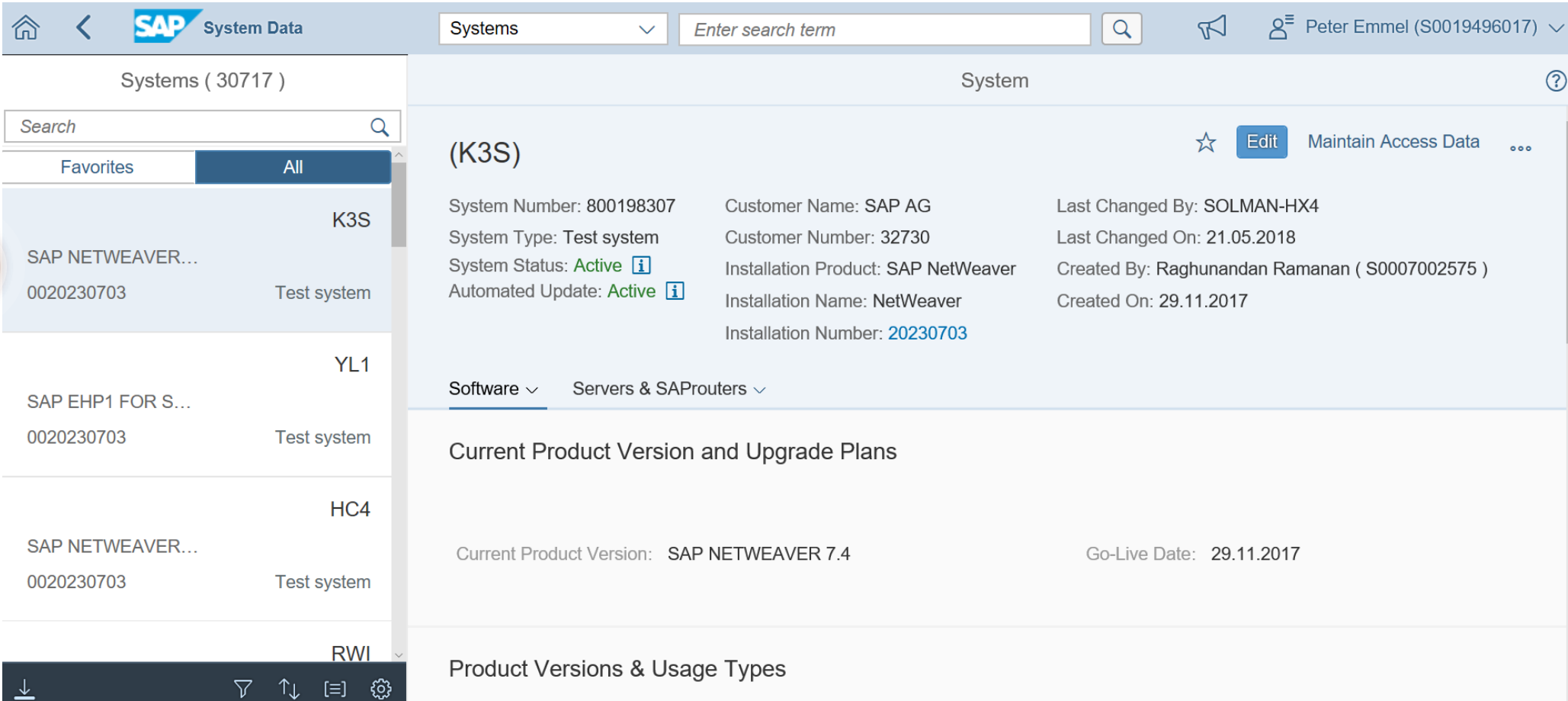
# System Data Application in SAP Support Portal (b)

2. Select "System Data":

The screenshot displays the SAP ONE Support Launchpad interface. At the top, there is a navigation bar with the SAP logo, the text 'ONE Support Launchpad', a 'Knowledge Base' dropdown menu, a search bar with the placeholder 'Enter search term', and icons for a megaphone and a user profile. Below the navigation bar is a blue header section titled 'System Operations and Maintenance'. The main content area is a grid of application tiles. The 'System Data' tile is highlighted with a red border and a circled '2' in the top-left corner. This tile shows 'System Data' with 'On Premise' status, a grid icon, and 'Favorite systems' with a count of '0'. Other tiles include 'Support User Management' with user statistics (Active Users, Total Users: 247, Requested users: 31, Recently created: 19), 'Landscape On Premise' with 'Productive systems', 'System Data Overview Report On Premise', 'Installation Data' with a 'Cannot load tile' error, 'Software Downloads On Premise', 'Product Availability Matrix On Premise', 'Software Change Registration On Premise' with 'SSCR', 'Development Namespaces On Premise' with 'Newly available' and a count of '0', and 'Remote Connections Manage Connections' with 'Open connections' and a count of '0'.

# 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.



The screenshot displays the SAP Support Portal interface for System Data. The top navigation bar includes the SAP logo, the text "System Data", a dropdown menu for "Systems", a search input field with the placeholder "Enter search term", and a user profile for "Peter Emmel (S0019496017)".

The main content area is divided into two sections. On the left, a sidebar titled "Systems ( 30717 )" contains a search bar and a list of systems. The "All" tab is selected, and the first system, "K3S", is highlighted. A red circle with the number "3" is overlaid on this system. The system details for "K3S" are shown on the right:

- System Number:** 800198307
- System Type:** Test system
- System Status:** Active i
- Automated Update:** Active i
- Customer Name:** SAP AG
- Customer Number:** 32730
- Installation Product:** SAP NetWeaver
- Installation Name:** NetWeaver
- Installation Number:** 20230703
- Last Changed By:** SOLMAN-HX4
- Last Changed On:** 21.05.2018
- Created By:** Raghunandan Ramanan ( S0007002575 )
- Created On:** 29.11.2017

Below the system details, there are sections for "Current Product Version and Upgrade Plans" and "Product Versions & Usage Types". The "Current Product Version" is SAP NETWEAVER 7.4, and the "Go-Live Date" is 29.11.2017.

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

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

The screenshot displays the SAP Support Portal interface for the 'System Data' application. The main header shows 'System Data' and 'Systems' with a search bar. The left sidebar lists systems, with 'K3S' selected. The main content area shows details for system '(K3S)', including System Number (800198307), Customer Name (SAP AG), System Type (Test system), System Status (Active), and Installation Product (SAP NetWeaver). A dropdown menu is open, highlighting 'Current Product Version and Upgrade Plans'. A red circle with the number '4' is overlaid on the 'K3S' system entry in the sidebar.

System	System Number	Customer Name	Last Changed By
(K3S)	800198307	SAP AG	SOLMAN-HX4

System	System Type	Customer Number	Last Changed On
(K3S)	Test system	32730	21.05.2018

System	System Status	Installation Product	Created By
(K3S)	Active	SAP NetWeaver	Raghunandan Ramanan ( S0007002575 )

System	Automated Update	Installation Name	Created On
(K3S)	Active	NetWeaver	29.11.2017

System	Installation Number	Go-Live Date
(K3S)	20230703	29.11.2017

- Software
- Servers & SAProuters
- Current Product Version and Upgrade Plans
- Product Versions & Usage Types
- Kernel
- Software Component Version and Support Packages



# 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.

The screenshot displays the SAP Support Portal interface. On the left, a sidebar titled 'Systems ( 30717 )' contains a search bar and a list of systems. The 'All' tab is selected, showing three systems: (K3S), (YL1), and (HC4). The main area shows the details for system (K3S). A red circle with the number '5' highlights a dropdown menu for 'Servers & SAProuters', which is expanded to show 'SAP Main/Additional Router' and 'DB/Application/Other Servers'. The system details include:

- System Number: 800198307
- System Type: Test system
- System Status: Active
- Automated Update: Active
- Customer Name: SAP AG
- Customer Number: 32730
- Installation Product: SAP NetWeaver
- Installation Name: NetWeaver
- Installation Number: 20230703
- Last Changed By: SOLMAN-HX4
- Last Changed On: 21.05.2018
- Created By: Raghunandan Ramanan ( S0007002575 )
- Created On: 29.11.2017
- Current Product Version: SAP NETWEAVER 7.4
- Go-Live Date: 29.11.2017





# 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](#)

