Building your SAP Business One Cloud Landscape

SAP Business One Cloud Landscape Workshop
Section Objectives

This section of the course will enable you to:

- Complete the steps necessary to build a SAP Business One Cloud landscape.
Topics in this section

1. Prerequisites
2. Configuring the Server Landscape
3. Managing Remote Access
4. Configuring Database Instances
5. Installing the SAP Business One Cloud Software Components
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1. Prerequisites
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Prerequisites (Hardware/Software)

Server Requirements:
- You have configured the required number of machines for your landscape (based on your estimated requirements)
- You have installed Microsoft Server 2008 R2 Standard or Enterprise edition
- You have installed Microsoft SQL Server 2008 R2 Standard or Enterprise on the Database Server(s)
- If using Microsoft Remote Desktop Services you have configured Internet Information Services (IIS) on the User Access Portal Server(s)
- You have installed Adobe Reader and Adobe Flash on all Presentation Servers
- Install Mozilla Firefox on the Central Management Server

Software Requirements:
- Compatibility with the SAP Business One client application, which you can find in SAP Note 1756002.
Prerequisites (SSL Certificates)

The following certificates are required for an SAP Business One Cloud landscape:

- Certificates for Remote Desktop Services
  - Remote Desktop Services components require certificates for authentication. For more information, see www.microsoft.com.

- Certificates for the System Landscape Directory
  - If you select Hypertext Transfer Protocol Secure (HTTPS) as the web protocol the SLD uses for connections, a certificate is required for authentication. For more information, see Installing SAP Business One Cloud Components.

You can acquire the necessary certificates using either of the following methods:

- Third-party Certificate Authority
  - You can purchase certificates from a third-party global certificate authority that Microsoft Windows trusts by default.

- Certificate Authority Server
  - You can configure a Certificate Authority (CA) server in the SAP Business One Cloud landscape to issue certificates. If you choose this method, you must configure all servers in the landscape to trust the CA’s root certificate.
Introducing the workshop cloud landscape

**AcXess Sandboxed SAP Business One Cloud Workshop Landscape**

- **Domain Controller Server**
  - Active Directory

- **Presentation Server**
  - User Access Portal
  - RDS Gateway
  - SAP Business One Client

- **Database Server**
  - SQL Instance for Service Unit(s)
  - SQL Instance for System Landscape Directory
  - Integration Component
  - SBO Mailer

- **Central Management Server**
  - Cloud Control Center
  - License Server
  - Software Repository
  - Shared Storage
Demonstration

Demonstrate access to the landscape in use
Exercise

Login to your training landscape using the login details provided by your instructor.

In *Building the SAP Business One Cloud Landscape* complete the table in section 2.1
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Configuring the Server Landscape

Windows Time Server

- Time service tool required by the Kerberos authentication protocol
- Ensures that all machines in the SAP Business One Cloud Landscape use a common time
- Without a time server synchronization errors will occur in the authentication processes.
- More information on setup can be found at http://support.microsoft.com/kb/816042
Configuring the Server Landscape

Configuring the Domain Controller

- Ensure the Windows Active Directory Service has been installed on the Domain Controller(s)
- Create a new domain
- Design the structure you want to use in Active Directory Users and Computers, e.g.

sapbusinessonecloud.net (Domain)

- **Cloud Operators OU (Organizational Unit)**
  - Cloud Infrastructure Operator GP (Group)
  - Cloud Application Operator GP (Group)

- **Customer Organization (Organizational Unit)**
  - Customer ABC OU (Organizational Unit) *Created for each customer*
  - Customer ABC GP (Group)
  - Service Unit X GP (Group)
  - Service Unit Y GP (Group)
Exercise

In *Building the SAP Business One Cloud Landscape*:

- Complete section 3.1.1 to setup a Windows Time Server
- Using the suggested structure described in this section create a suitable Active Directory structure in the landscape Domain Controller
Configuring the Server Landscape

Define a User Account naming convention

- Currently it is not possible to use a user’s email address as their login credentials
- Careful consideration should be given to the convention used to cater for a large number of users
- This naming convention should also consider other aspects of the landscape (e.g. tenant databases etc.)

Windows Roaming user profile

- A productive landscape requires more than one Presentation Server, a Windows Roaming User Profile provides a mechanism to store user data and provide it to the computers users log on to.
- Each domain user requires one

SAP Business One Cloud Service User

- User that is used by the SAP Business One System Landscape Directory (SLD) Service and SAP Business One SLD Agent throughout the landscape
An SAP Business One Cloud landscape requires the following shared folders for storing files:

- Software Repositories
- Shared Folders
- Implementation Repositories
- Company Template Repositories
- Tenant Storage
- User Storage
Exercise

In *Building the SAP Business One Cloud Landscape:*

- Complete section 3.1.4 to create the required domain users
- Complete section 3.1.5 to configure the roaming profile
- Complete section 3.2 to create the required storage in the landscape
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Managing Remote Access

Remote Desktop Licensing

- The *Remote Desktop Licensing* server role manages Remote Desktop Services client access licenses that are required for devices and users to connect to a *Remote Desktop Session Host* server.

Remote Desktop Session Host(s)

- The *Remote Desktop Session Host* is the server role that runs Windows programs or provides users with a full Windows Desktop experience. Multiple servers can be configured to act as a farm to provide scalability and redundancy.

Remote Desktop Connection Broker

- The *Remote Desktop Connection Broker* manages user sessions in a load-balanced *Remote Desktop Session Host* server farm. Functionality includes session distribution and user reconnection among others.
Managing Remote Access*

Remote Desktop Session Host Server Farm

- Each *Remote Desktop Session Host Server* farm is a collection of presentation servers that provide access to SAP Business One Cloud for a single *Service Unit*.
- Users are connected to a presentation server by the domain controller, connection broker and gateway servers.

User Access Portal Server

- The *SAP Business One Cloud User Access Portal* is a customized version of the portal delivered for Remote Desktop Web Access by Microsoft and should be configured for productive use by your team.

Remote Desktop Gateway

- The *Remote Desktop Gateway* is a server that allows authorized users to connect to remote computers in the network from any internet connection. The *Remote Desktop Gateway* uses SSL to transmit data securely and avoids firewall issues that can occur with RDP.

*Assuming use of Microsoft Remote Desktop Services (RDS) in this workshop, if you are using a different solution check our SAP Business One Cloud InfoHub or your 3rd party solution documentation.
Exercise

In *Building the SAP Business One Cloud Landscape*:

- Complete section 3.3.1 to install the necessary certificates
- Complete section 3.3.2 to install Microsoft Remote Desktop Web Access and the Remote Desktop Gateway roles
- Complete section 3.3.3 to configure Microsoft Remote Desktop Web Access
- Complete sections 3.3.4 to configure Remote Desktop Licensing
- Complete section 3.3.6 to configure the Microsoft Remote Desktop Session Host
- Complete section 3.3.7 to configure the Microsoft Remote Desktop Connection Broker
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Configuring Database Instances

There are two different use cases for a database instance in the SAP Business One Cloud Landscape:

- A database instance for the SAP Business One Cloud System Landscape Directory (SLD). This is the database that stores and maintains data related to the operation of the SAP Business One Cloud Landscape.
- A database instance for a Service Unit. A Service Unit can only operate one version of SAP Business One, which means each Service Unit can only have one database instance related to it. This database instance stores all tenant databases and common database for a single Service Unit. Each landscape can have multiple Service Units.

High Availability Scenarios

- Microsoft SQL Server can be configured to allow failover capability by creating a cluster of servers. See note 942923 - SQL Server Cluster Service, Indexing or Log Shipping for more information.
- The SAP Business One Cloud SLD Service can also be installed as part of a cluster allowing for high availability of the SLD Database. See Configuring a High-Availability Failover solution for the SLD on the SAP Business One Cloud Landscape InfoHub.
Exercise

In *Building the SAP Business One Cloud Landscape*:

- Review section 3.4 that configured the two Microsoft SQL Server Instances
- Complete section 3.4.3 to configure the installed Microsoft SQL Server Instances (*instead of the instructions in 3.4.3.2 disable the firewalls on the SQL, RDS and CCC servers*)
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Installing the SAP Business One Cloud Software Components

Create a software repository

- The software repository will be used to store:
  - The versions of *SAP Business One* that are required in this landscape
  - Each version of *SAP Business One* will need to be stored in its own shared folder
  - The folders will need the correct permissions set to allow the *Cloud Control Center* access to it.
  - Create the folders in the Software Repository setup already earlier in the workshop
  - Name the folders so it is easy to tell what version exists in the folder
Installing the SAP Business One Cloud Software Components

Installing the *SAP Business One License Server*

- A license server is a central component that manages the application license mechanism. Since the license server is compatible with all versions of SAP Business One, multiple service units can share a single license server.

- For the integration component and mailer service to function correctly in on-demand environments, in the SAP Business One License Manager, register any common databases and ensure you select the Use Trusted Connection checkbox.

For more information about installing and configuring a license server, see the *SAP Business One Administrator’s Guide*
Installing the SAP Business One Cloud Software Components

Installing the *SAP Business One Mailer*

- The SAP Business One Mailer provides email services for SAP Business One tenants.

- When installing SAP Business One Mailer in a SAP Business One Cloud environment you must ensure that:
  - There is one SAP Business One Mailer for each Service Unit
  - The machine that it is installed on is configured for SAP Business One Cloud (via the registry settings)
  - The logon account for the SAP Business One Mailer Service has local administration privileges, e.g. if following the workshop documentation this can be set to SAPServiceB1C.

- The SAP Business One Mailer is automatically registered into the Cloud Landscape when it is started but you must manually assign it to the correct Service Unit
Installing the SAP Business One Cloud Software Components

The System Landscape Directory and SAP Business One Cloud Control Center

- The System Landscape Directory (SLD) is formed of a service that provides information about the landscape components and their settings. And also a database that stores all of the relevant information about the SAP Business One Cloud Landscape.
- The SAP Business One Cloud Control Center provides a HTML5 based interface for managing the components in the SAP Business One Cloud Landscape.

The SLD Agent Service

- The SLD Agent Service performs various tasks on behalf of the SLD, such as installing an SAP Business One client or performing database upgrades. It should be installed on any server in the landscape that will host an SAP Business One or SAP Business One Cloud Software component.
- The SLD Agent Service install can be configured to be deployed as part of a Group Policy Object.
Installing the SAP Business One Cloud Software Components

The *SAP Business One Cloud User Access Portal*

- The *SAP Business One Cloud User Access Portal* is an example portal that you can use as a template to create your own customized portal.
- It is a customized version of the Remote Desktop Web Portal, with *SAP Business One* branding and the inclusion of:
  - Single Sign-on
  - Trial Request functionality
Exercise

In *Building the SAP Business One Cloud Landscape*:

- Complete section 4.1 to create a new *SAP Business One* software repository using the provided *SAP Business One* download.
- Complete section 4.2 to install the *SAP Business One License Server* and *SAP Business One Mailer*
- Complete section 4.3 to install the *SAP Business One Cloud Control Center*
- Complete section 4.4 to install the *SAP Business One Cloud SLD Agent*
- Complete section 4.5 to install the *SAP Business One Cloud User Access Portal*
Installing the SAP Business One Cloud Software Components

Configure the Registry Settings for SAP Business One Cloud

- For the SAP Business One Cloud Landscape to function correctly each machine needs two settings in the registry to be configured
  - *Hosting* – This indicates to *SAP Business One* that this is an *OnDemand* implementation of the application and modifies certain behaviours accordingly. For instance this triggers the use of single sign on to *SAP Business One Cloud*, so that the user is not prompted for their login credentials when they access the system.
  - *SLDAddress* – This tells the *SAP Business One Cloud SLD Agent* where to find the server that is hosting the *SAP Business One Cloud SLD Service* so that it can communicate with it.
- We could manually create these registry keys on all required machines but this soon becomes impractical and prone to error as the landscape scales.
- Alternatively we can use a Group Policy Object (GPO) to distribute these settings to the required machines using Administrative Templates.
Exercise

In *Building the SAP Business One Cloud Landscape*:

- Complete section 4.6 to ensure all servers are correctly configured for the *SAP Business One Cloud Landscape*. 
Installing the SAP Business One Cloud Software Components

Microsoft Office Integration
There are actually a number of different alternatives for working with Microsoft Office, you need to evaluate which approach is the best for you:

- *SAP Business One Outlook Integration* is not supported.
- Install Microsoft Office on the Remote Desktop Session Hosts
  - Ability to open Excel and Word documents from *SAP Business One* within the cloud landscape
  - Additional cost to be considered.
- Install OpenOffice on the Remote Desktop Session Hosts
  - Ability to open Excel and Word documents from *SAP Business One* within the cloud landscape
- Use the Microsoft Excel Integration solution from SAP
  - Uses WebDav to share files back to the user’s local machine and open the Excel document there.
  - Some limitations in larger landscapes.
  - Requires registry changes and also a small program to be installed on the user’s local machine.
    (Can be done via GPO)
- Use Drive Mapping
  - Allows users to store the exported document from *SAP Business One Cloud* to a folder that is on their local machine. They can then manually open it from there.
Exercise

In *Building the SAP Business One Cloud Landscape*:

- Complete section 4.7 to configure the landscape to use WebDav to provide Microsoft Office Integration
Summary

In this section we have:

- **Prepared the cloud infrastructure for use as a SAP Business One Cloud landscape including:**
  - Active Directory
  - Remote Desktop Services
  - Microsoft SQL Server

- **Installed the core SAP Business One Cloud components ready for configuration in the next step.**