

On-Premises Deployment of Business Central

Benefits and Drawbacks

Most deployments of Dynamics 365 Business Central are SaaS in the Microsoft cloud. With that said, there is an on-premises, self-hosted deployment option. If you are in a sovereign or government cloud, this is your only option as the publish date. You may also want more control over your deployment than what comes with the SaaS version. Below outlines benefits, drawbacks, and considerations for choosing to go on on-premises to make the deployment and ongoing support successful.

Infrastructure Control and Setup

With on premise deployments, you fully set up and control the infrastructure. This comes with both benefits and drawbacks.

Benefits of On-Premises	Drawbacks of On-Premises
<p>Full Control.</p> <p>Ability to control all aspects of infrastructure, and thus your data, to meet requirements for storage of sensitive data.</p>	<p>Minimal support from Microsoft.</p> <p>For instance, managing space, SQL/OS versions, and applying of license files</p> <p>Requires purchasing of hardware or private cloud resources to host the application. This is in addition to the licensing fees.</p>
<p>Available in times of Microsoft outages</p> <p>If Microsoft is experiencing an outage, on-premises applications can still be accessible. Accessible in times of Microsoft outages</p>	<p>Performance Management and Disaster Recovery</p> <p>Responsible for all performance management</p> <p>Disaster recovery is YOUR responsibility</p>
<p>Storage cost.</p> <p>Cheaper storage than Dataverse capacity</p>	<p>Planning and scalability.</p> <p>Must plan for appropriate physical hardware vs being able to scale up with the click of a button</p> <p>Scalability and performance impacted based on hardware selections. Upfront planning and investment</p>
	<p>Technical skills required.</p> <p>Installation and management require PowerShell skills compared to the user interface that is provided in the cloud.</p>

Application Update Lifecycle Control

Microsoft in the cloud has an approach known as OneVersion. This approach forces updates without your ability to skip when going to the cloud.

Benefits of On-Premises	Drawbacks of On-Premises
<p>No forced updates to latest version.</p> <p>While you want to stay current as a best practice, sometimes you are just not ready to take the latest version. With on premises, you get a choice, with the cloud, eventually you are forced. Frequent regression testing is required in SaaS</p>	<p>Falling behind.</p> <p>Falling behind application updates can increase the effort for future upgrades. While having a choice to upgrade is empowering, it also comes with its downside.</p>

Application Functionality

Functionality in the application changes with the choice of deployment option. Below are two benefits and drawbacks to consider.

Benefit of On-Premises	Drawback of On-Premises
<p>Direct SQL access.</p> <p>In the cloud, SQL access is not provided, when managing on-premises, you can access the SQL server unlocking additional capabilities.</p>	<p>Lacking Full Feature Set.</p> <p>The full feature set of Business Central that is available as a service in the Microsoft Cloud is not available on premises. Copilot and AI features are limited, Power Platform integrations more complex, as well as configuring the Excel Add-In. Strongly consider feature limitations when choosing on-premises deployment.</p>

Other Considerations

Single Tenant and Multi-Tenant deployments

1. **Deployment Types:**
 - **Single Tenant:** The application and tenant databases are tied together.
 - **Multi-Tenant:** The business logic is separated into an application database that applies to multiple tenant databases storing the master and transactional data.
2. **Flexibility:**
 - The architecture can be changed later, though this requires additional effort to rework the setup.
3. **Upgrade Management:**
 - **Single Tenant:** More suitable for managing a single company, as it avoids the complexity of handling multiple databases during upgrades.
 - **Multi-Tenant:** Simplifies upgrades when managing multiple companies.

Authentication

1. Access Control Service (ACS):

- Utilizes Entra ID for authentication.
- Requires additional setup and an Azure tenant.
- Recommended for enabling Office integrations and controlling access from Azure.

2. Windows Authentication:

- Uses a user's Windows login for accessing Business Central.
- Supports Single Sign-On (SSO) and is the next best option after ACS.

3. NavUserPassword:

- Involves configuring login information specific to Business Central.
- May be necessary in certain scenarios but is not the preferred method for authentication.

Summary

In summary, there are considerations, benefits, and drawbacks to choosing an on-premises deployment of Dynamics 365 Business Central. While on-premises grants additional control over the implementation, the skillset required to deploy and maintain can be a barrier to entry over the simplicity of SaaS deployment. Additionally, factor in the additional cost of starting your footprint in Azure, if currently your applications exist solely on-premises.

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