Managing Application Lifecycle with PowerApps and Flow



Agenda

- Publishing and Versioning PowerApps and Flow Solutions
- Working in the PowerApps and Flow Admin Center
- Installing and Configuring an On-Premises Data Gateway
- Understanding Environments
- Configuring Data Loss Prevention Policies
- Packaging and Deploying Custom Solutions



Application Lifecycle Manage (ALM)

Managing Power Apps

- Sharing PowerApps
- PowerApp Versioning
- Microsoft AppSource

Running PowerApps

- PowerApps Mobile
- Web Browser
- SharePoint List

PowerApps Admin Center and Flow Admin Center

- Environments
- Data Loss Prevention Policies



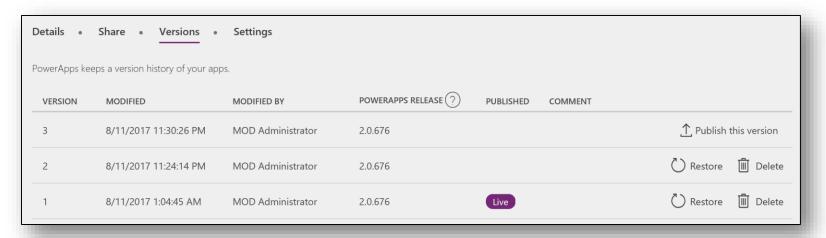
Sharing PowerApps

- Apps can be shared with:
 - Users or groups
 - Entire organization
- There are 3 types of sharing options:
 - Can Use
 - Users/groups can run the app but cannot share
 - Can Use and Share
 - Users/groups can run the app and share with others
 - Can Edit
 - Users/groups can run the app, customize it, and share the new version of the app



PowerApps Versioning

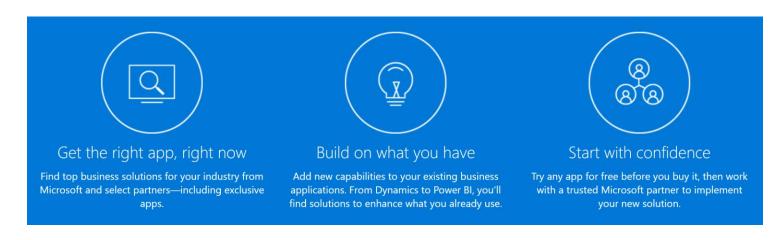
- PowerApps keeps version history for apps saved to cloud
 - Accessible via https://web.powerapps.com
 - Restore, delete, and publish versions





Microsoft AppSource

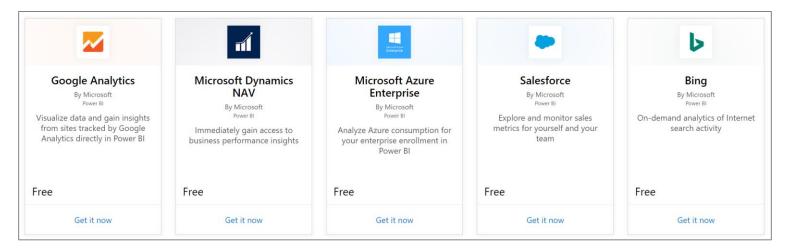
- What is Microsoft AppSource?
 - Repository for business users find and use SaaS apps
 - Find solutions for vertical industries from Microsoft and partners
 - Located at https://appsource.microsoft.com





Acessing Microsoft AppSource

- Get solutions tailored to your industry that work with the products you already use such as:
 - Dynamics 365, Office 365, Power BI, and various Cloud solutions





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PowerApps Admin Center

- PowerApps Administration within in an organization
 - Need to have established boundaries and policies
- Tenant admins + environment admins have ability to
 - Create and manage environments
 - CDS Databases
 - Data loss policies (DPL)



Flow Admin Center

- For tenant admins and environment admins
 - Accessible at https://admin.flow.microsoft.com
 - Configure Data Loss Prevention (DLP) Policies
 - Data Integration
 - Projects
 - Connection Sets
 - Tenant Administration
 - User licenses
 - Quota



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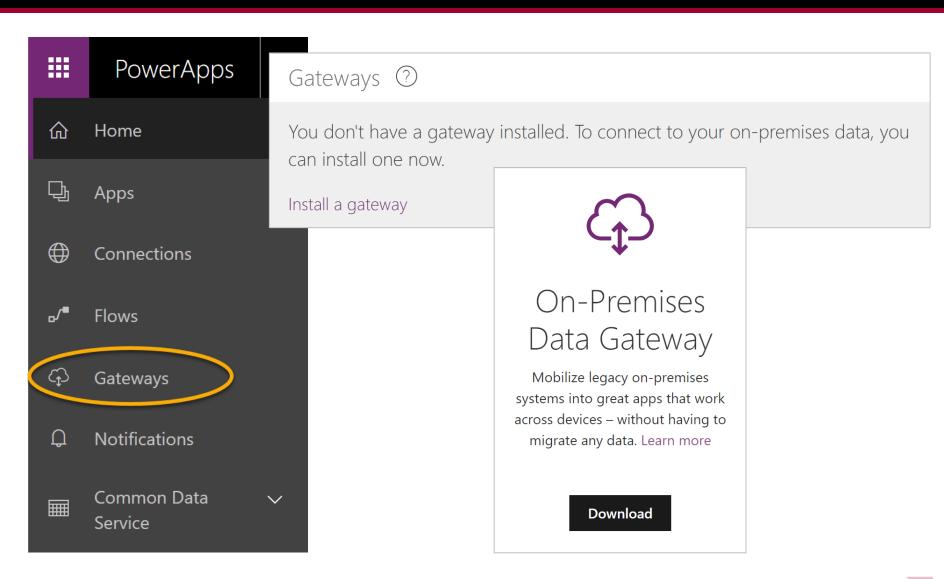
On-premises Gateways

- Install an on-premises data gateway to transfer data quickly and securely between PowerApps and a data source that's not in the cloud
- With a gateway, you can connect to on-premises data over these connections:
 - SharePoint
 - SQL Server
 - Oracle
 - Informix
 - Filesystem
 - DB2

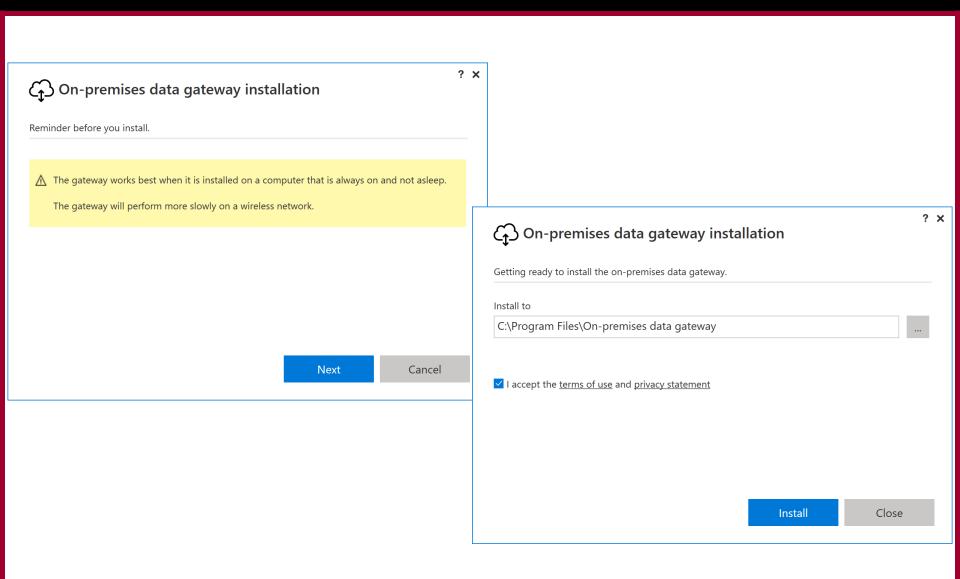


On-premises data gateway One gateway for multiple cloud services and experiences **Cloud services Azure Logic Apps** Azure Analysis Services Preview **PowerApps** Microsoft Flow Power BI **Gateway Cloud Service** Data source connection credentials are encrypted Azure Service Bus **Application Gateway** Data source connection credentials can only be decrypted by the gateway SQL Server **On-premises data** SQL Server Files, SharePoint sources

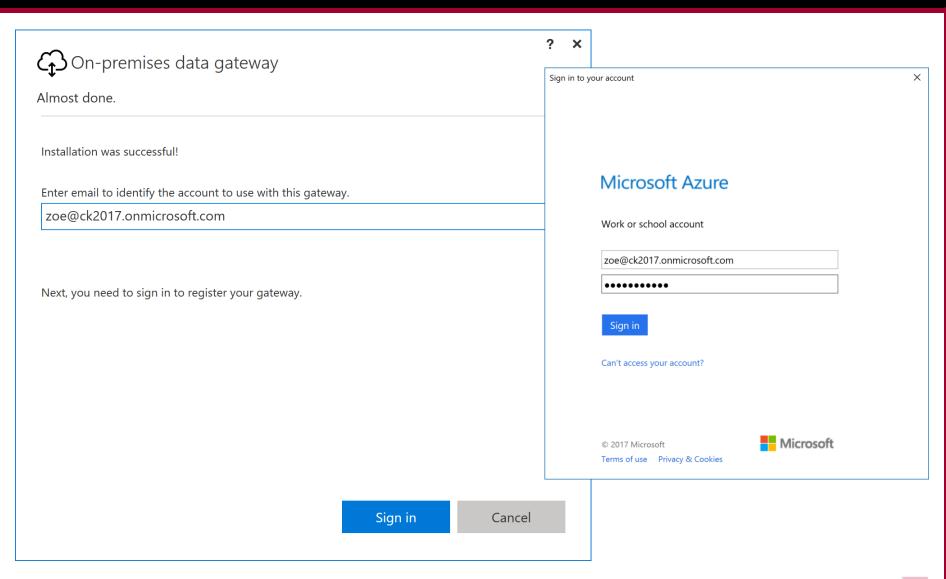




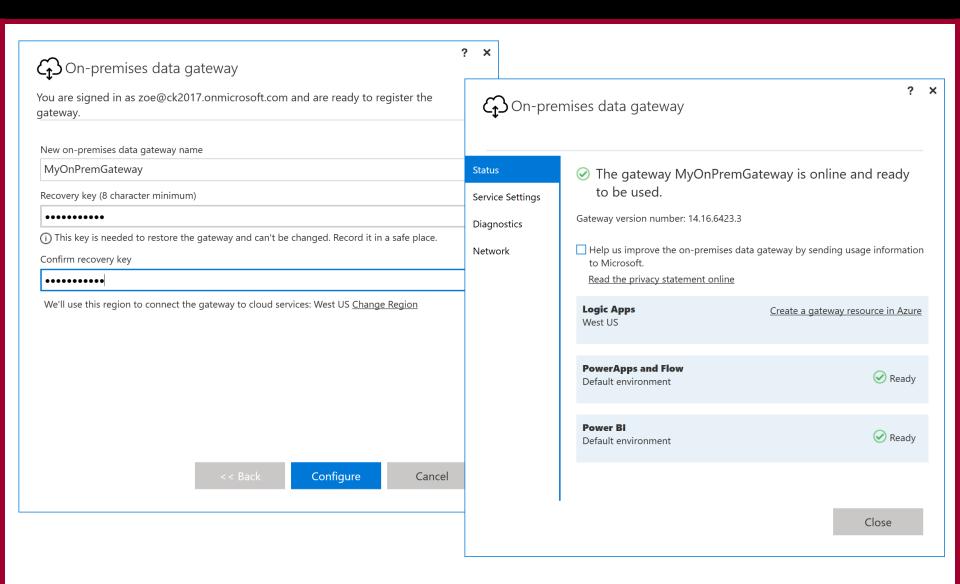














More information about on-premises gateways and installation can be found at:

https://powerapps.microsoft.com/en-us/tutorials/gateway-reference/



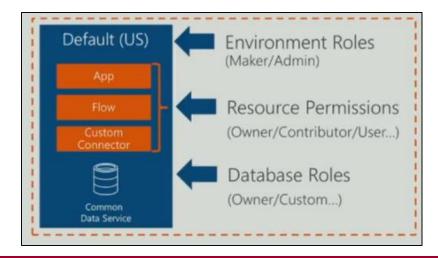
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Environments

- Environments serve two purposes
 - Resource partitioning (by region)
 - Governance boundary
- Every tenant is provisioning with default environment
- Access to environment controlled at 3 different levels
 - Environmental roles
 - Resource permissions for apps and flows
 - CDS Database roles





Managing Environments

- Environment is scope to store, manage, and share custom solutions
 - Custom solutions include PowerApps, Flows and CDS Schema
- Environments serves as containers to separate apps that have:
 - Different roles
 - Security requirements
 - Target audiences
- How you choose to leverage environments depends on your organization and apps you are trying to build



Environment Roles (Admin and Maker)

- Environment Admin role can perform all administrative actions on an environment including the following:
 - Add or remove a user or group from either Environment Admin or Environment Maker role
 - Provision Common Data Service database for environment
 - View and manage all resources created in environment
 - Set Data Loss Prevention policies
- Environment Maker role can create new resources within environment including apps, connections, custom APIs, gateways, and flows using Microsoft Flow



Monitoring Environments

- PowerApps Admin center allows monitoring resources:
 - View and manage environments
 - View and manage all apps and flows within an environment
 - View and manage your CDS database
- Require PowerApps Plan 2 or Microsoft Plan 2 license



Environment Examples

- Single environment: Build apps in a single environment
- Separate environments: Create separate environments that group Test and Production versions of your apps
- Separate environments by teams: Create separate environments corresponding to specific teams or departments in your company.
 - Each containing the relevant data and apps for each audience
- Separate environments by branches: Create separate environments for different global branches of your organization



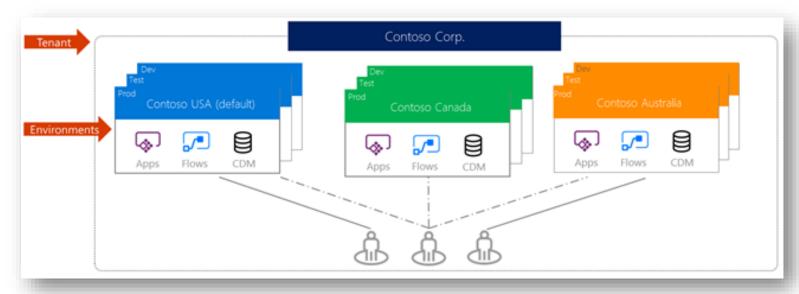
Apps in Environments

- App in an environment is permitted to connect to data sources deployed in same environment which includes:
 - Connections, Gateways, Flows, and Common Data Service databases
- For example, in a scenario with two environments for Test and Production (named Test and Prod):
 - You create a Common Data Service database in each of the environments
 - App in 'Test' environment only permitted to connect to the 'Test' database
 - App in 'Test' environment cannot connect to the 'Prod' database and vice-versa



CDS in Environments

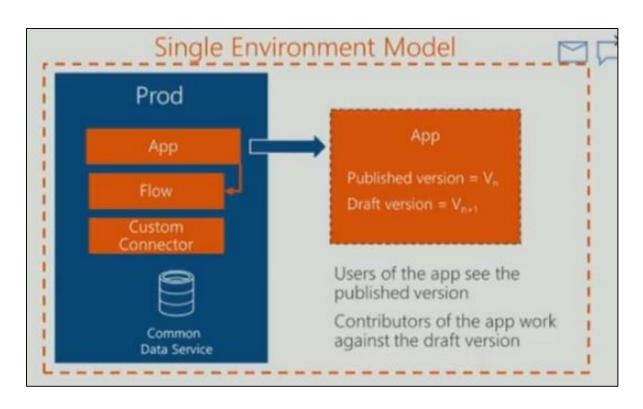
- Every environment has either 0 or 1 CDS database
 - Environment created without CDS database by default
 - You can only create a single CDS database per environment
 - The ability to create a CDS database for your environment depends on your purchased PowerApps license and your permission within the environment.





Single Environment Model

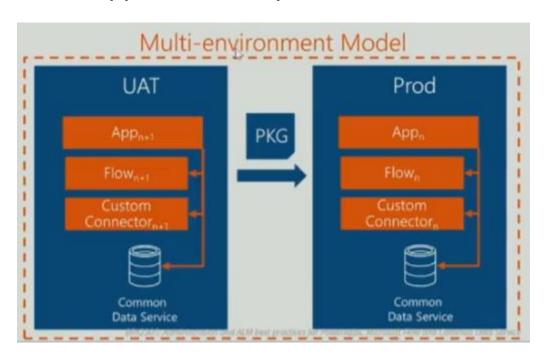
- [Save + Publish] allows testing and verifying new app versions without impacting users working with app in production
- Best for scenarios where you're not introducing breaking changes to your data model (e.g. connectors and CDS schema)





Multi-environment Model

- Leverage packaging to move custom solutions across environments (or tenants)
- Required in scenarios where you're introducing breaking changes to data model (e.g. connectors and CDS schema)
- PowerApps Plan 2 required for users who are packaging solutions





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Data Loss Prevention Policies

Data is critical in an organization's success

- It needs to be readily available for decision-making
- Needs to be protected so it's not shared with audiences that should not have access to the data

Data Loss Prevention (DLP) Policies

- PowerApps provides a way to protect your data by providing the ability to create and enforce policies
- You can define which consumer services/connectors specific business data may be shared with



Data Loss Prevention Policies

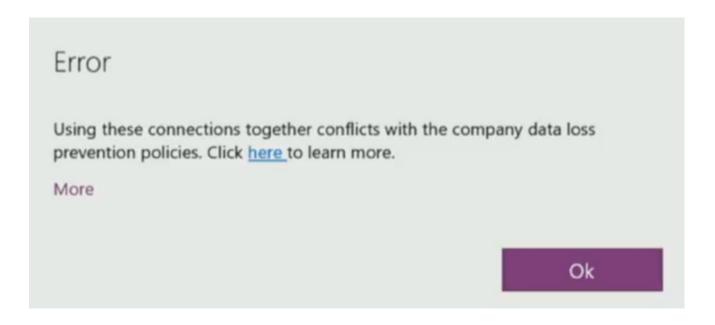
Benefits of a DLP policy

- Ensures data is managed in a uniform manner across the organization.
- Prevents important business data from being accidentally published to services such as social media sites.
- Example: Prevent business data stored in SharePoint from being automatically published to a Twitter feed.
 - Create a DLP policy that blocks SharePoint data from being used as the source for tweets.



Policy Violation

Business Data vs Non-business Data





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