#FABCONSQLCON2026

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Microsoft Fabric
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ATLANTA MARCH 16 - 20, 2026

Agenda

- Introductions
- Problem overview
- Example architecture
- Autobinding & Variable Library review
- Running Fabric deployment pipelines from Azure DevOps
- Demo
- Limitations & considerations

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Founder at CertiAce (certiace.com)

Founder at Fabric Forge (skool.com/fabricforge)

Aleksi Partanen

All my links!

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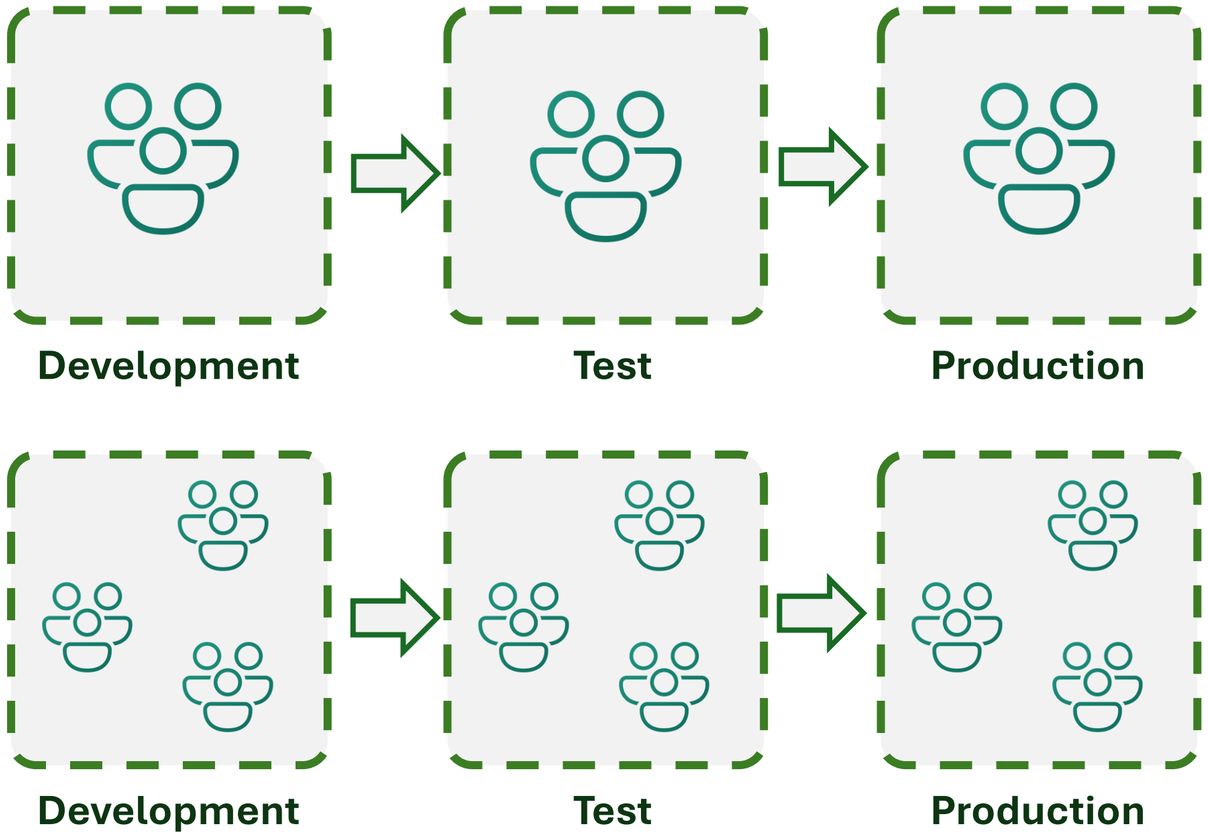
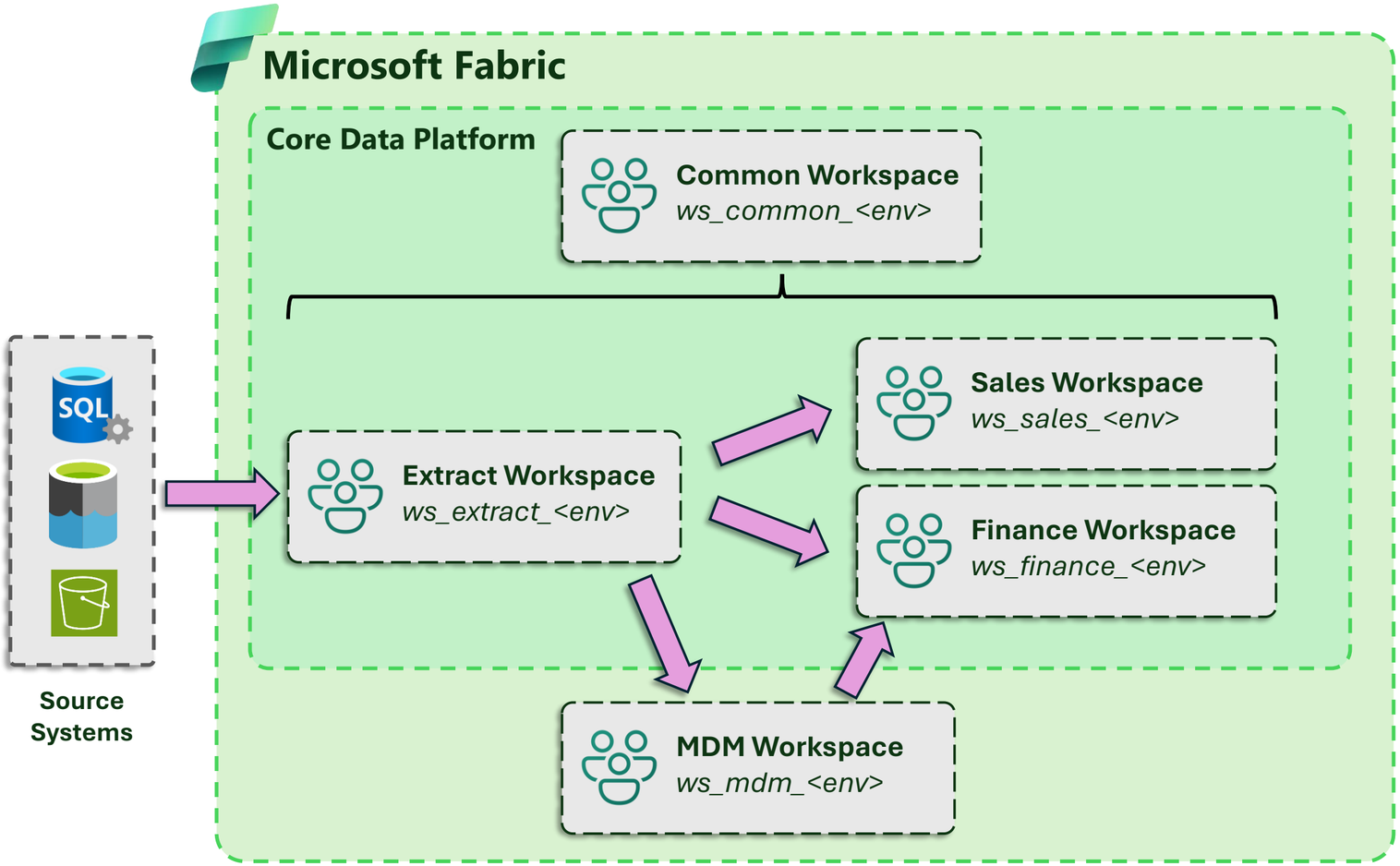
Problem in a nutshell

- When doing this in one single workspace thins are quite straight forward and deploying from one environment to another is typically simple
- When having multiple workspaces per environment things start to get way more complex



High-level example architecture



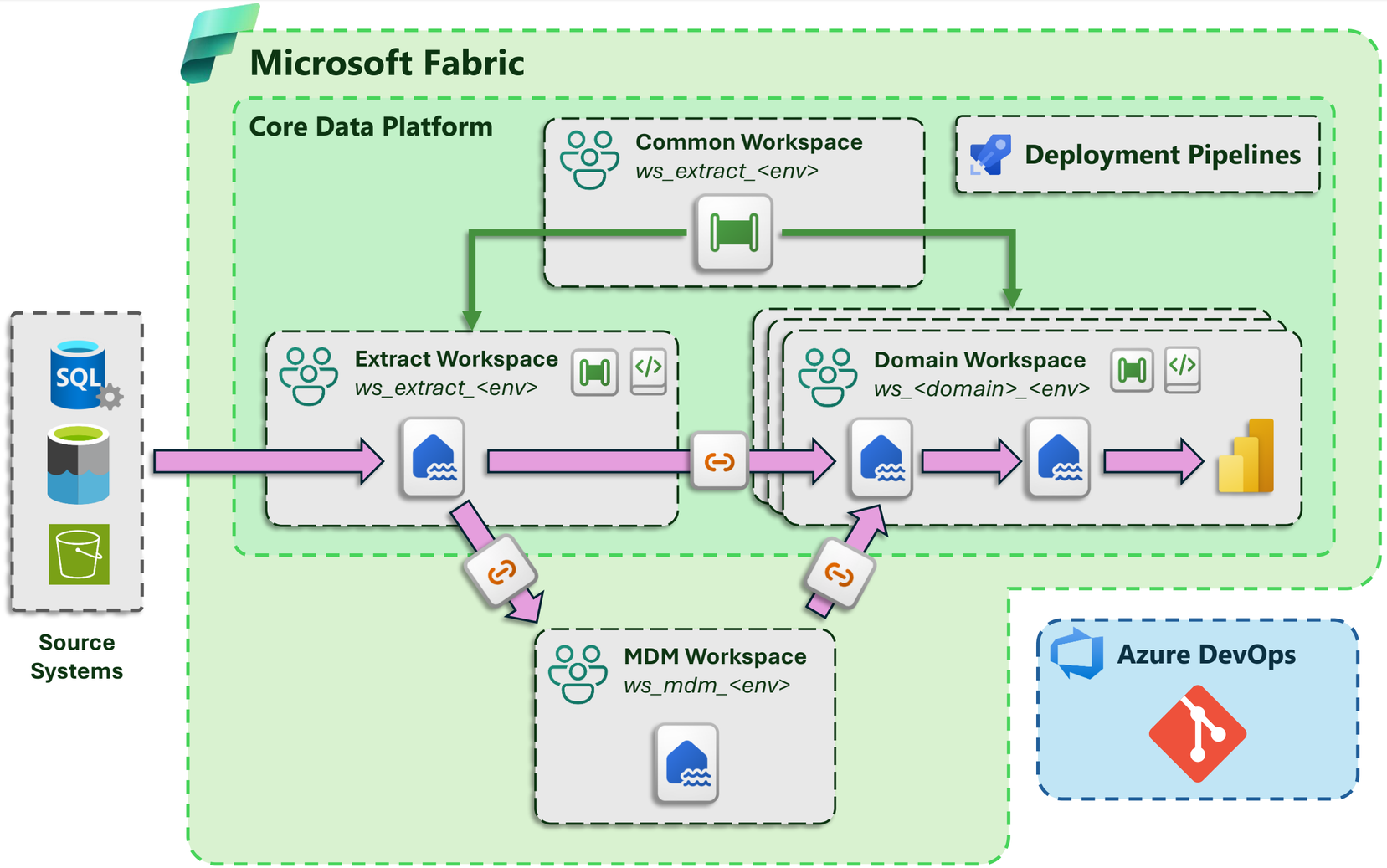
Extract Workspace
- Ingests data from source systems
- Central raw data landing zone
- Supplies data to domain workspaces

Domain Workspaces
- Domain-specific transformations and modeling
- Consume data from Extract
- Deliver curated data to business

Common Workspace
- Central orchestration layer
- Coordinates cross-workspace pipelines
- Controls execution across domains

MDM Workspace
- Produces master data products
- Owned by a separate team with their own CI/CD practices & setups
- External dependency to the core data platform

Detailed example architecture



Lakehouses
- Main datastore used in the platform
- Lakehouse Shortcuts are used to share data across workspace

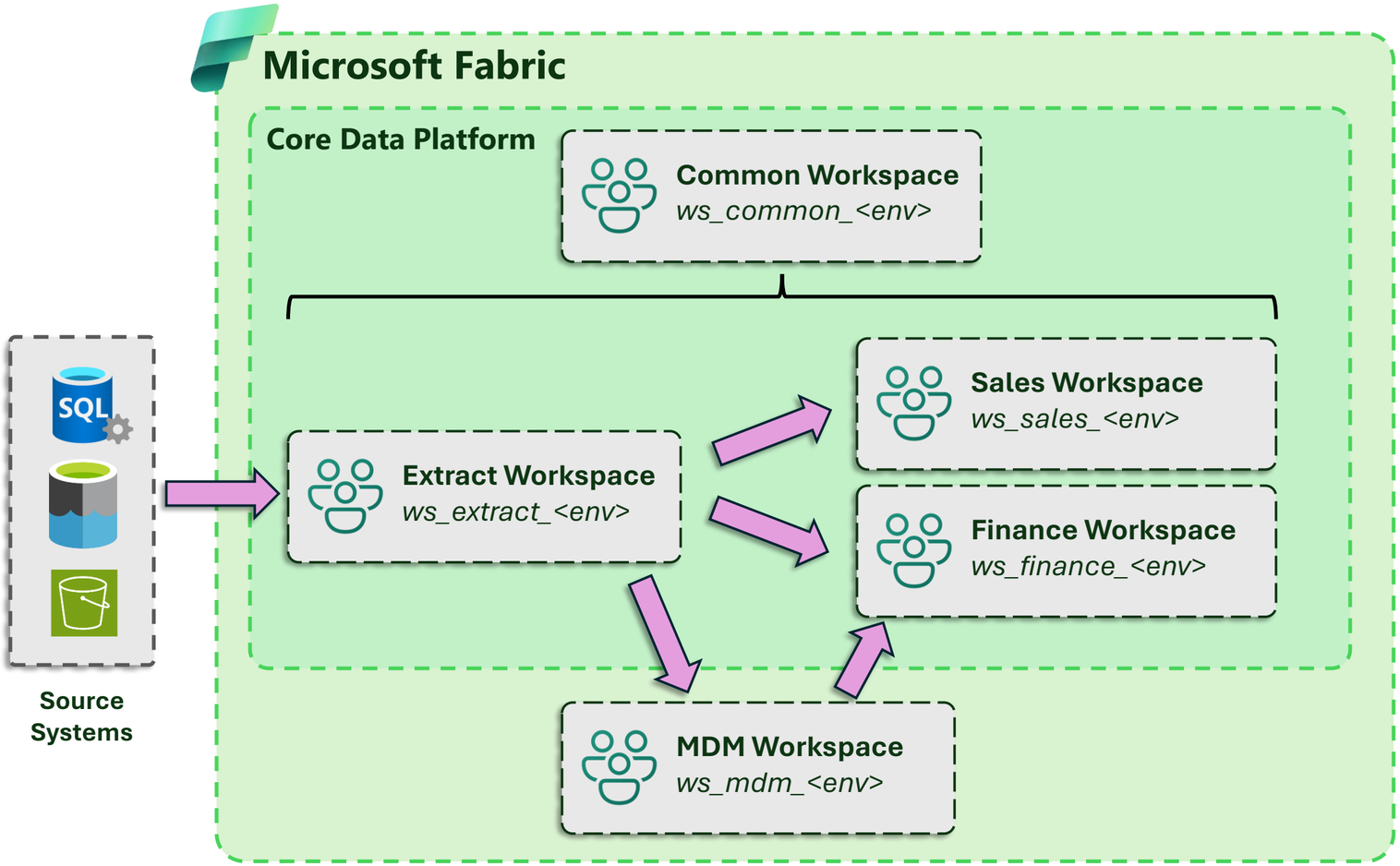
Pipelines
- Main orchestration tool
- Use for many data extractions as well

Notebooks
- Data transformation and data modelling

Power BI Reports
- Data is mainly used for Power BI reporting via semantic models

CI/CD
- Repos in Azure DevOps
- Deployment done via Fabric Deployment Pipelines

Challenges with deployments



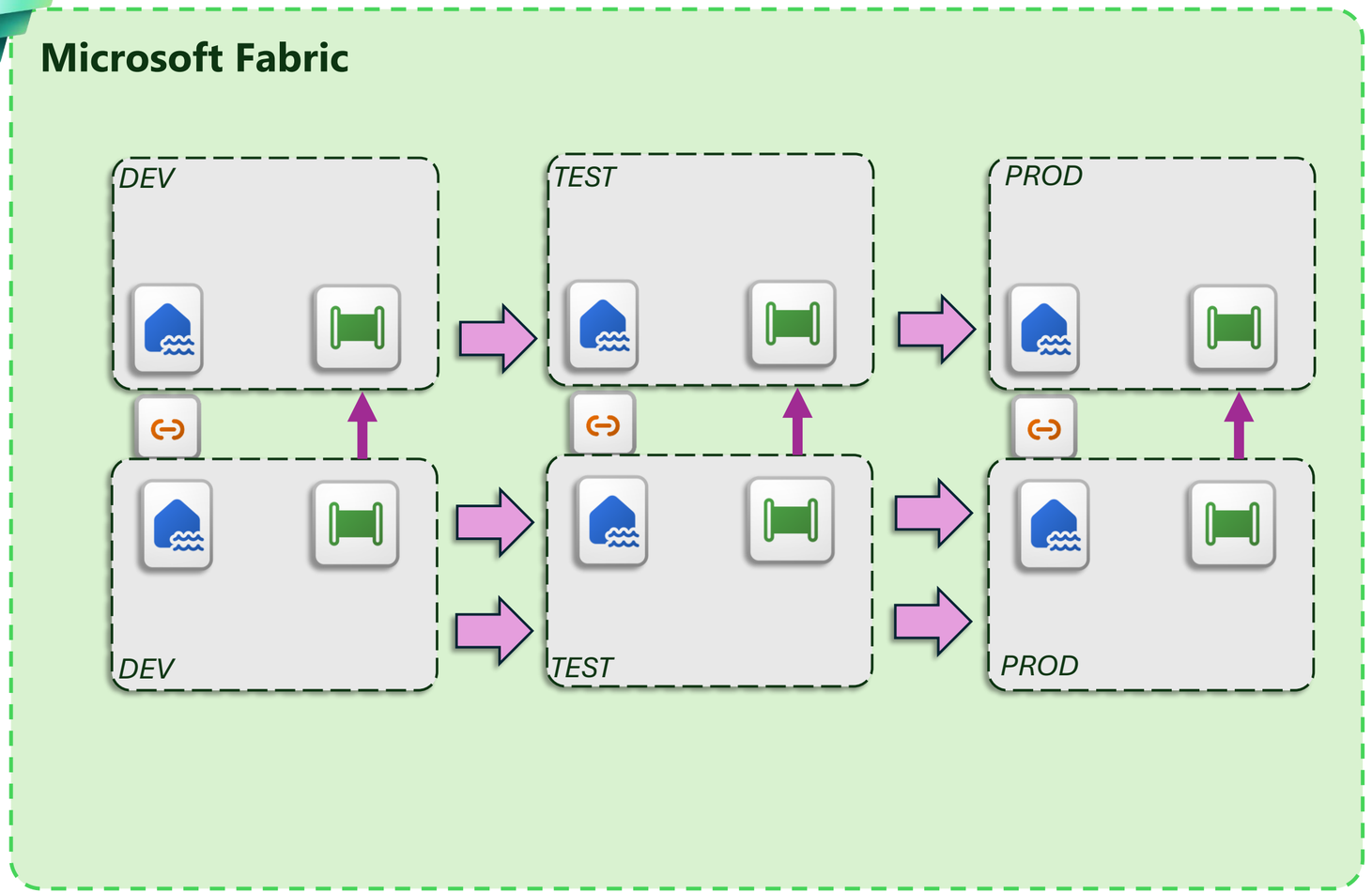
Multiple cross-workspace dependencies
- Shortcuts and pipeline invokes
- Central orchestration layer
- Multiple deployment pipelines needed

Deployment order matters
- Upstream first, then consumers
- Partial deployment risks
- Fails if dependencies missing

Dependencies to MDM workspaces
- Outside of core data platform CI/CD processes & practices

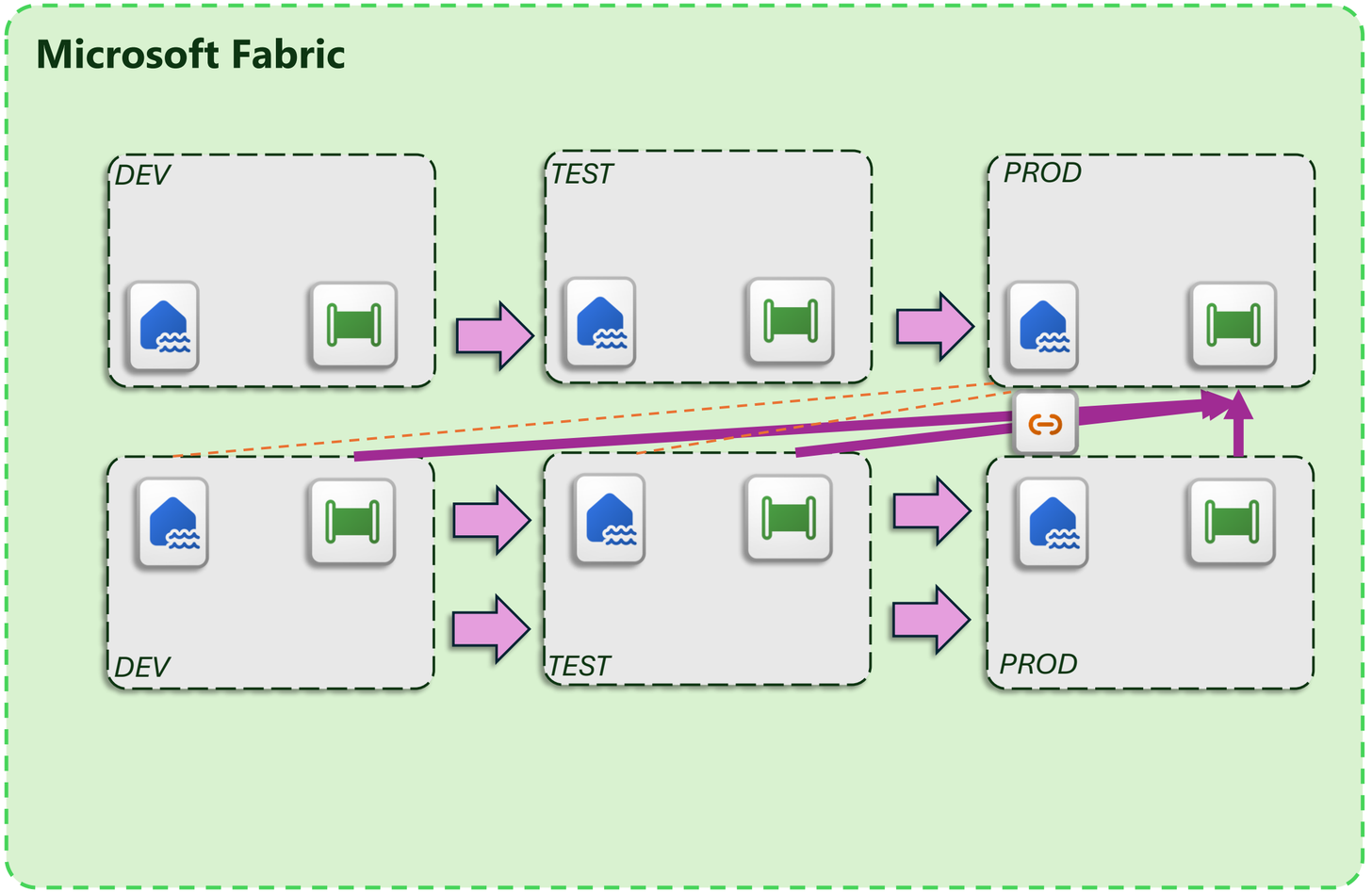
Fabric uses internal ids rather than names
- Different IDs per item per environment
- Many things can't be resolved using names

Autobinding



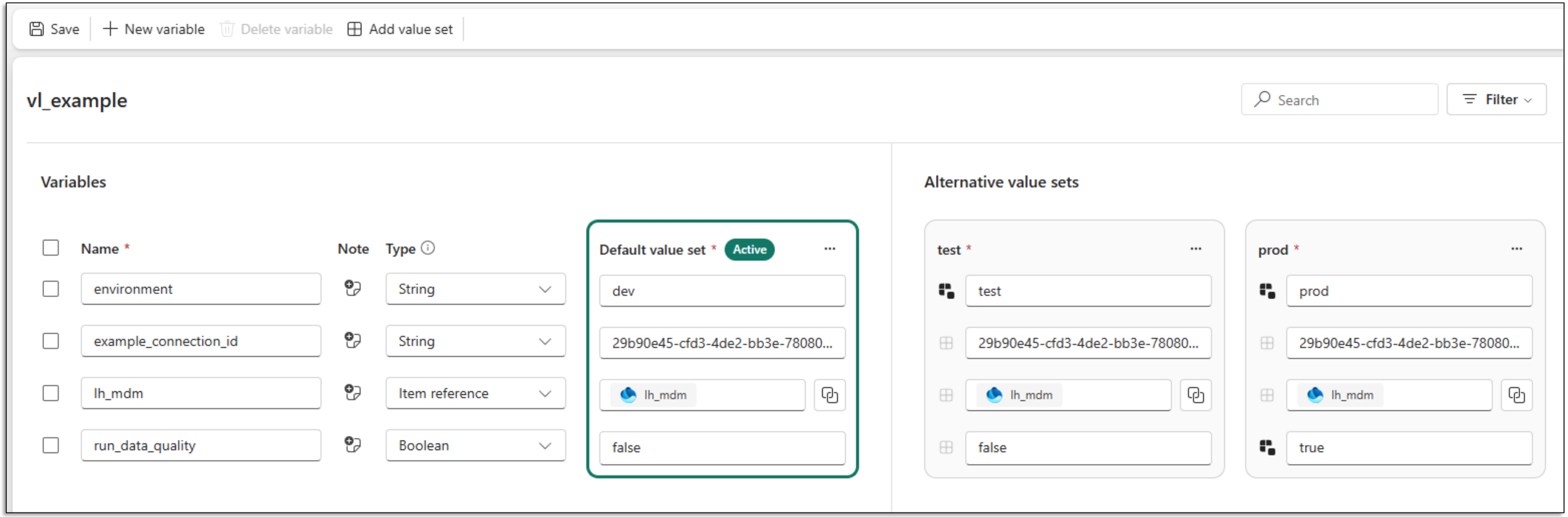
- Autobinding takes care of shortcuts across workspaces when deploying
- Fabric knows that there is a relationship between these workspace items
- If the relationship is not there => deployments brakes

When not to use autobinding



- You might have a case where you use shortcut and pipelines to production in every environment
- In this case you want all of your shortcuts and pipelines to point to production workspace

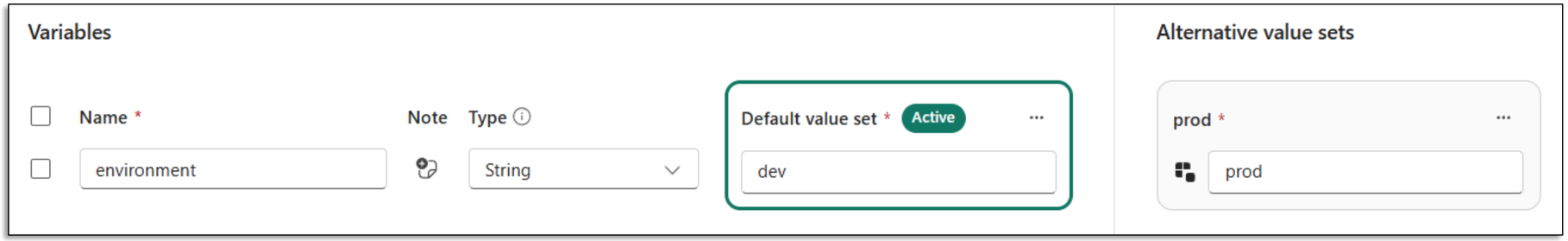
Variable Library



Multiple variable libraries

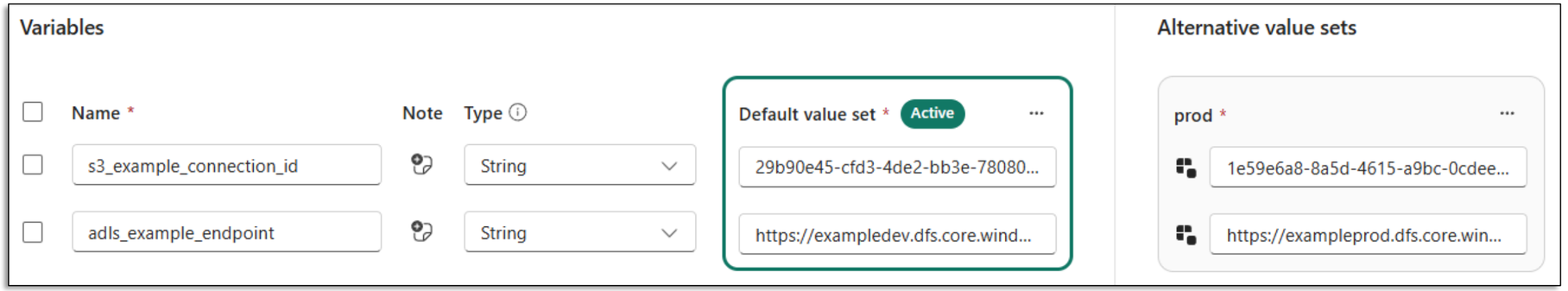
Generic environment variables
vl_environment_variables

Variable library for generic environment variables



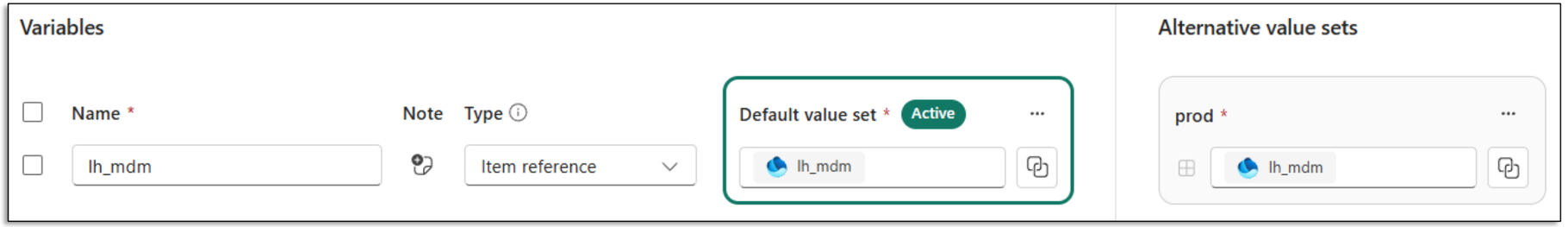
External connections
vl_external_connections

Variable library for managing external connections and dependencies to external systems

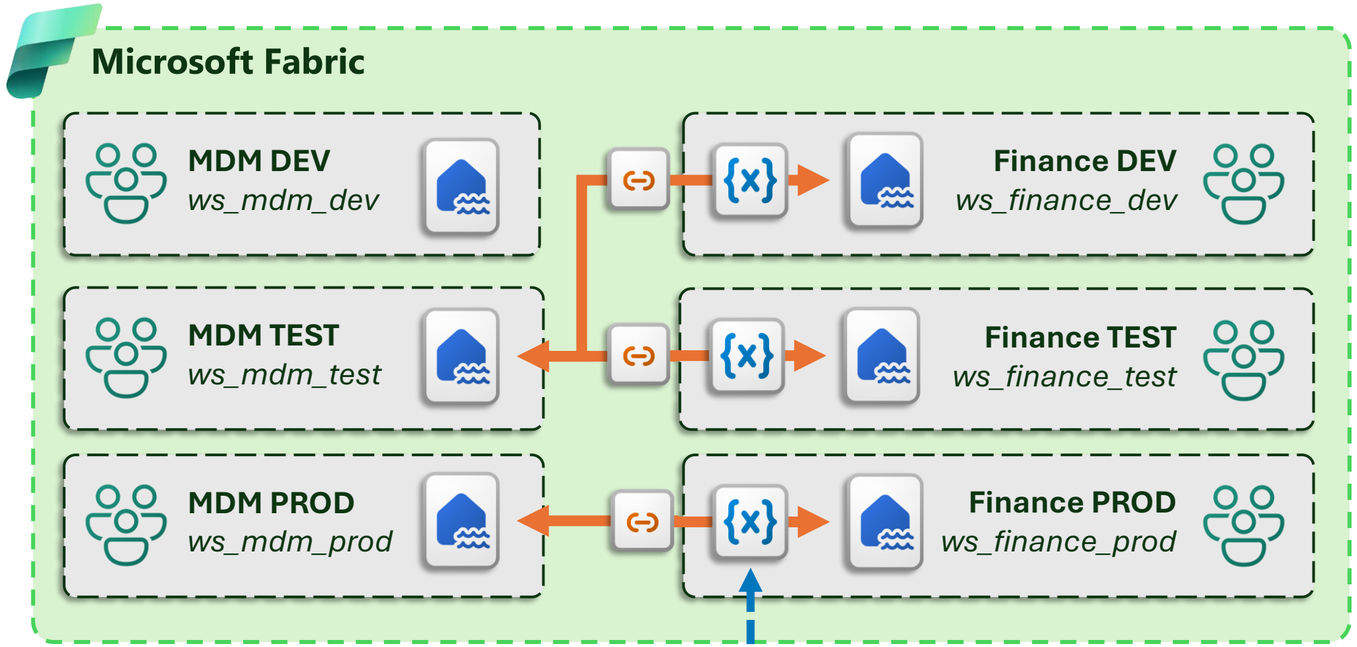


Workspace references
vl_<workspace_without_env>

Variable library for (some) cross-workspace item references. One variable library per referenced workspace

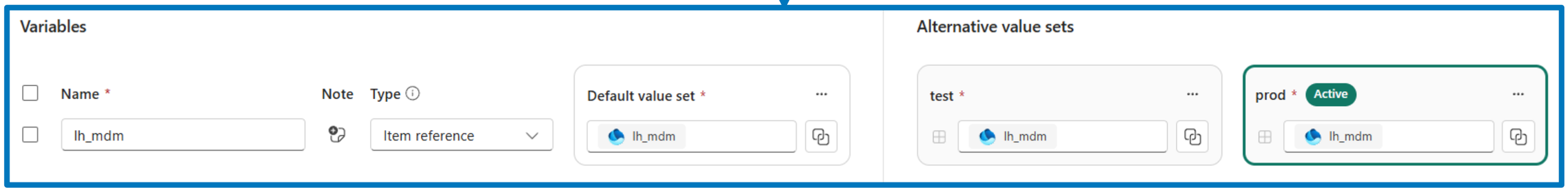


Workspace dependency handling



- Variable libraries can be used to handle cross-workspace dependencies
- Especially helpful when having dependencies that you don't control and deploy
- Can be also handy in feature branch workflows

vl_ws_mdm



Variable Libraries or Autobinding

Autobinding is simple

- Rely on autobinding in simple scenarios and when you are in control of the both workspaces and using Fabric deployment pipelines

No need to manage overhead

- Keeps the setup simpler since managing a lot of variables in variable library can become annoying

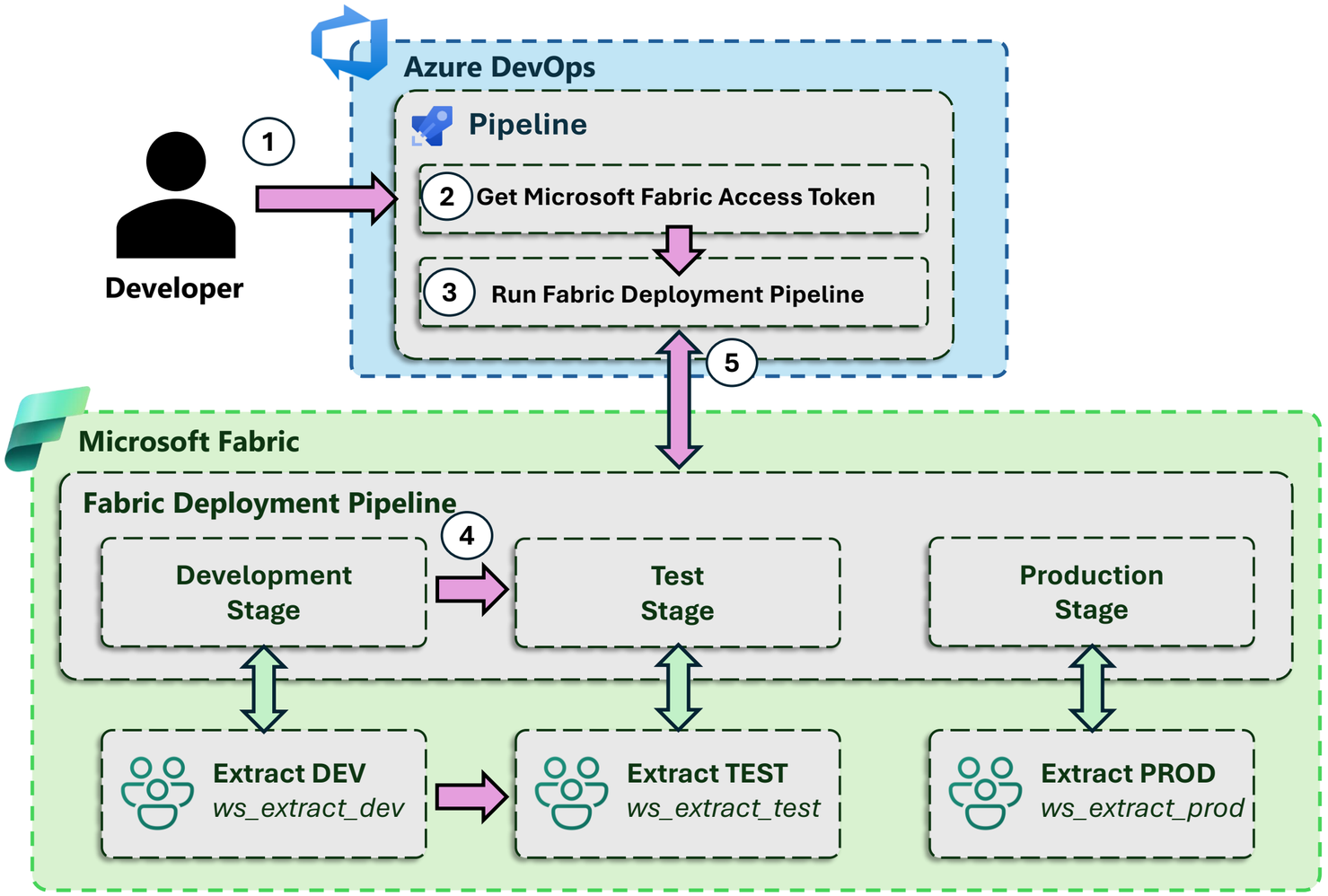
For more complex scenarios

- Use variable libraries for external connections

Cross-environment references

- Consider using variable libraries for shortcuts if you have multiple workspaces per environment and there is a need to do cross-environment references

Running deployments from Azure DevOps



Deployment steps

1. Developer runs the deployment pipeline in Azure DevOps

2. Deployment pipeline acquires Microsoft Fabric access token using service connections with SPN identity

3. Deployment runs Fabric deployment triggers the Fabric deployment pipeline via Fabric API using the token

4. Deployment pipeline deployment does the deployment from one environment to another

5. DevOps deployment pipeline polls the Fabric API for deployment status

Why run deployments from Azure DevOps?

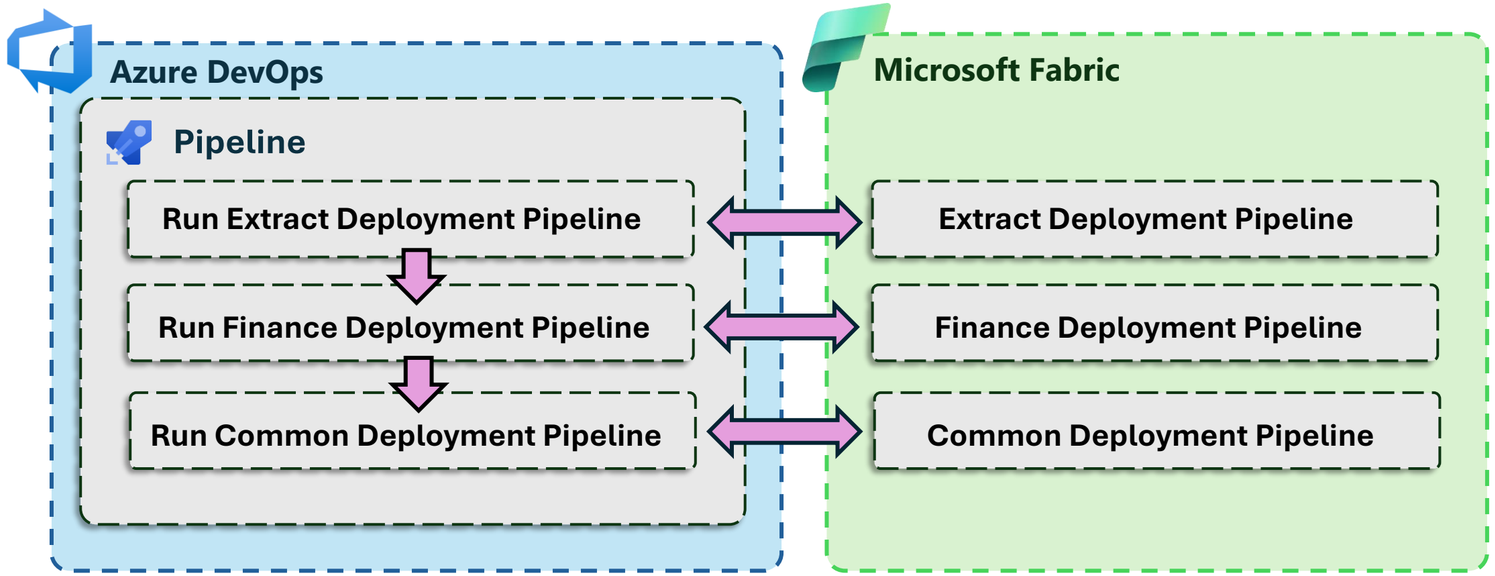
- Avoid personal user ownership in downstream environments
- Ensure consistent release identity (Service Principal)

Deploying multiple workspaces

Single release pipeline
- One DevOps pipeline triggers all Fabric deployments
- Centralized promotion process

Controlled order
- Extract → Domains → Common
- Upstream artifacts exist before downstream deploy

Fail-safe execution
- Each step waits for success
- Prevents broken bindings and partial environments



DEMO TIME!

Limitations & considerations

Key limitations

- **Deployments are not selective**
  - Which can make hot fixes problematic during testing cycles
  - Allow deployment via Fabric UI in some cases
- **SPN as supported item owner**
  - Nowadays supported in most cases but some items might still have problems with SPN as the item owner

Other things to consider

- **Dependencies**
  - Try to have dependencies only to one direction
    - Otherwise, deployment can become very challenging
- **Nontechnical aspects**
  - Like deployment cycles
  - Communication
  - Pull Requests reviews
- **Why not use Fabric CI/CD Python library?**
  - Only until recently it became supported by Microsoft, and this setup was had been done before that and that point decision was made to use the “official” deployment methods

Questions?

Connect with us!

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