

# Making the move from API Connect v5 to v10

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2. Migration Overview
  - Simple Migrations
  - Advanced Migrations
3. Additional resources

# API Connect v10 delivers significant value over previous releases

		v5	v2018	v10
Deliver new innovation	• <b>Multi-form API Management</b> now including <b>GraphQL support</b> with schema import and inspection, governance policies, and portal socialization			✓
	• <b>API test case</b> generation and integration to CI/CD pipeline			✓
	• Next generation <b>interactive API Debugger</b> with policy tracing and performance analysis			✓
	• Enterprise secure and <b>cloud native install experience on Kubernetes</b>		✓	✓
Standards	• <b>Stronger security</b> to protect your APIs through TLS 1.3			✓
	• Build new APIs with the latest <b>Open API 3.0 standard</b>			✓
Greatly improved gateway performance	• <b>Up to 10x better gateway performance</b> when using the Native API Gateway		✓	✓
	• <b>Up to 7x better performance</b> even when using new emulation features to simplify upgrade			✓
Delivers more value	• <b>Consistent user experience</b> across Cloud Pak for Integration and IBM Product Portfolio			✓
	• <b>Governance for universal policy enforcement</b> through Global Policy pre-flow actions			✓
	• <b>Automate Portal customizations, promotion</b> with integrations in your DevOps			✓
	• <b>Dynamic scale out</b> of key API management components as cloud native technology helps automate scale and operations			✓
More value in our platform	• <b>Event endpoint management:</b> Socialize more types of endpoints consistently, now including Kafka Topics leveraging AsyncAPI in API dev portals   easily discover & consume			V10 on CP4I 2021.x
	• <b>Automated API Testing with AI</b> helps automate creation of tests to improve coverage			

# While providing choice & flexibility in deploying v10



**IBM Cloud Pak for Integration**

*Consume API Management integration capabilities in a unified integration platform, on OpenShift anywhere*



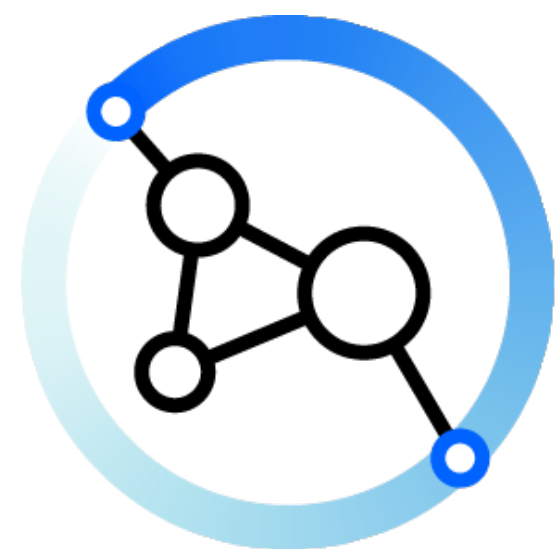
**IBM API Connect**

*Deployable on-prem or any cloud, bring your own OpenShift, any K8s or OVAs on VMware*



**IBM Cloud**

*API Connect Reserved Instance is a managed single tenant instance with ability to add on-premise gateways*



# IBM API Connect v5 end of support: Helping you succeed

## v5.x Lifecycle

**GA:** 2016

**EOS:** April 30, 2022

**Life:** 6 years

**Extended support:**  
Through Dec 31, 2022

## Important Facts

**Only 7 months left until the EOS date !!!** You should be already planning / upgrading

**v10 is the destination:** Move as early as practical to realize new innovation only in v10

## Resources Available

**Learn:** [Upgrade Central](#) connects you to resources

**Plan:** Step-by-step guidance available

Move to v10 via AMU tool to any destination

**Temporary use:** Policy for migration available

## Connect and Engage

**Engage** with us in a user community over 1900 members strong, create discussions, Q&A <https://ibm.biz/apic-community>

**Connect** with your IBM sales team for options to accelerate projects

**Leverage** IBM Support always available

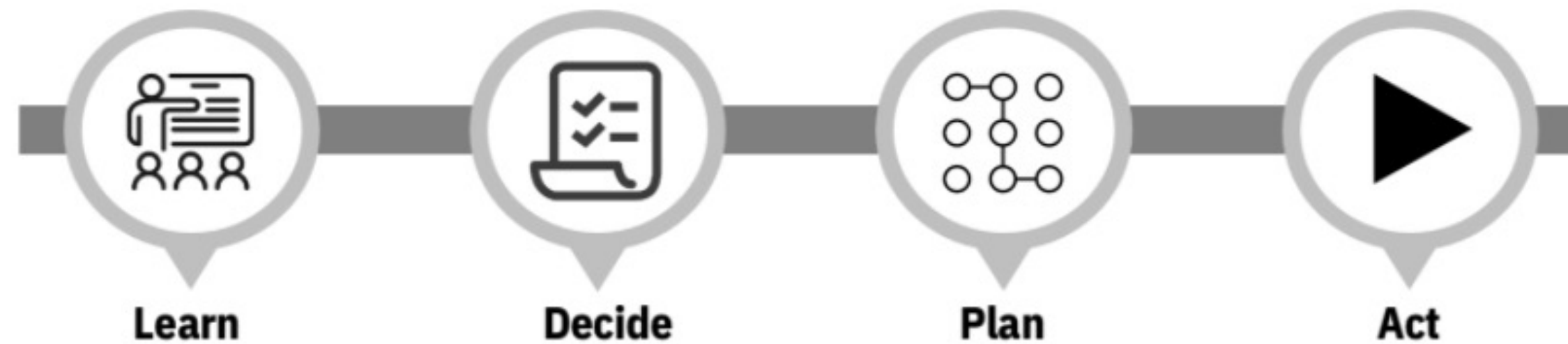


# New destination to learn and plan for your move to v10

<https://ibm.biz/apic-upgrade-central>



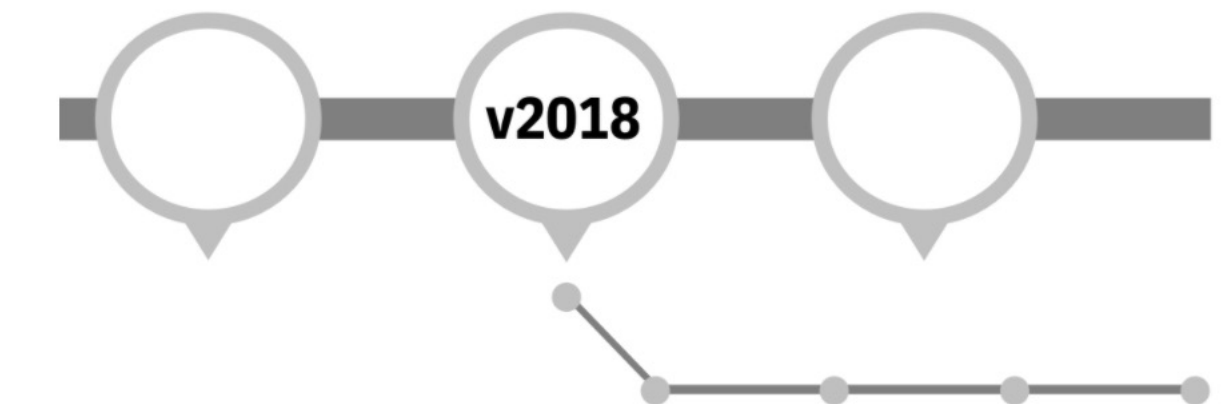
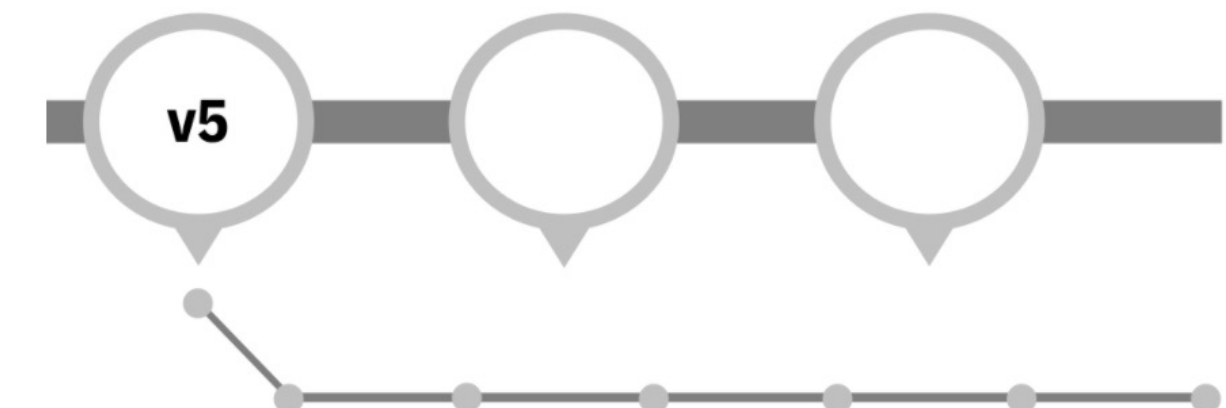
Moving between major versions of software requires the following steps:



**Learn** about v10, choices and considerations when moving

Make **decisions** and create a **plan** specific to your current release

**Act:** Execute your plan and complete your move



*Resources and tools for each unique path are provided to help complete your move*

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## 1. Migration Planning

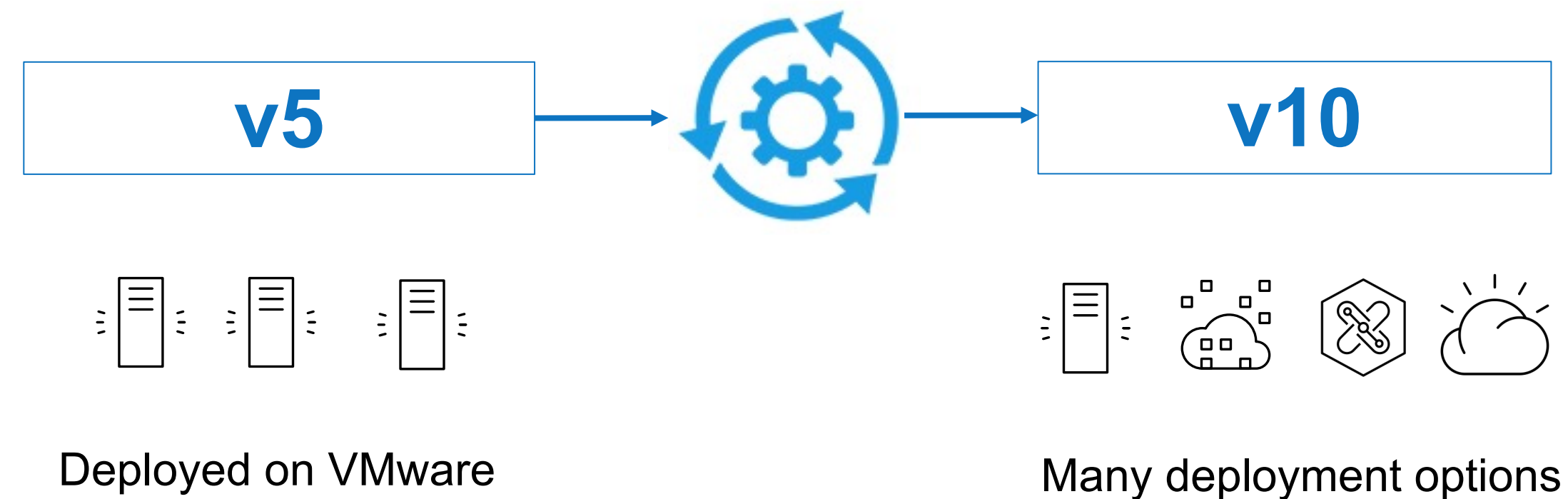
## 2. Migration Overview

- Simple Migrations
- Advanced Migrations

## 3. Additional resources

# Moving from v5 to v10 is a version migration

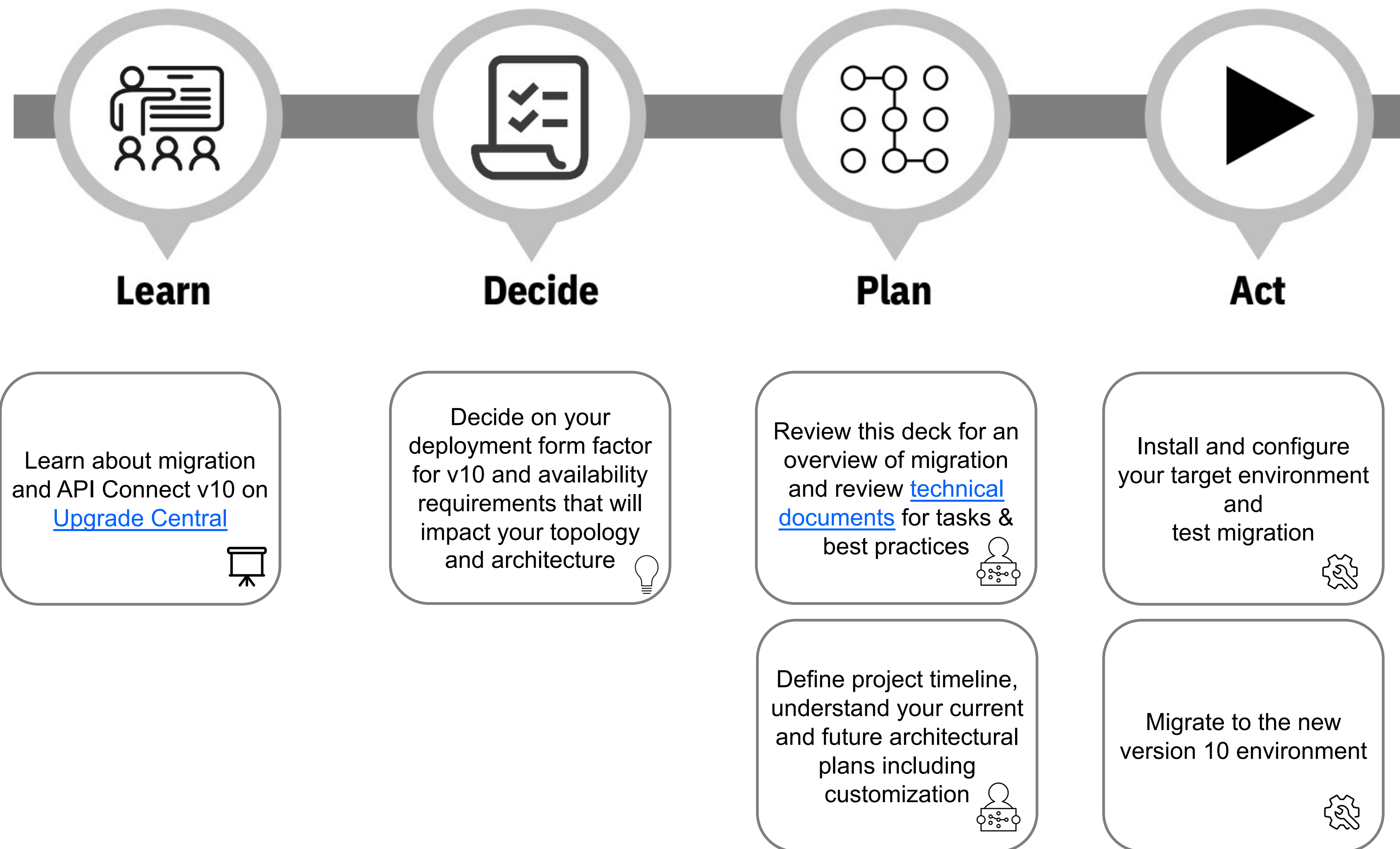
*Data is **migrated**  
from v5 to v10 with tooling*



*Move directly with the  
API Connect Migration Utility (AMU) tool*



# Phases of migration planning include...



# Planning examples

## Decision points

- Location: On-premise, cloud deployment, or a hybrid deployment
- Deployment form factor: VMware OVAs, OpenShift Container Platform, or other Kubernetes platforms (see below)
- Topology: Based on your availability requirements and assess licenses required for chosen topology (see below)
- Gateway service: native API Gateway Service or v5c Gateway Service (see below)
- Licensing: Consider upgrading to different product offerings with increased value or different cost models such as OpEx (see below)
- Timeframe: Which may generate the need for a migration waiver: See details on the resources page
- Migrate yourself or leverage services: Services augment skills for migration planning and execution, see details on the resource page

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# What is and What is not Migrated

## Full Auto Migration

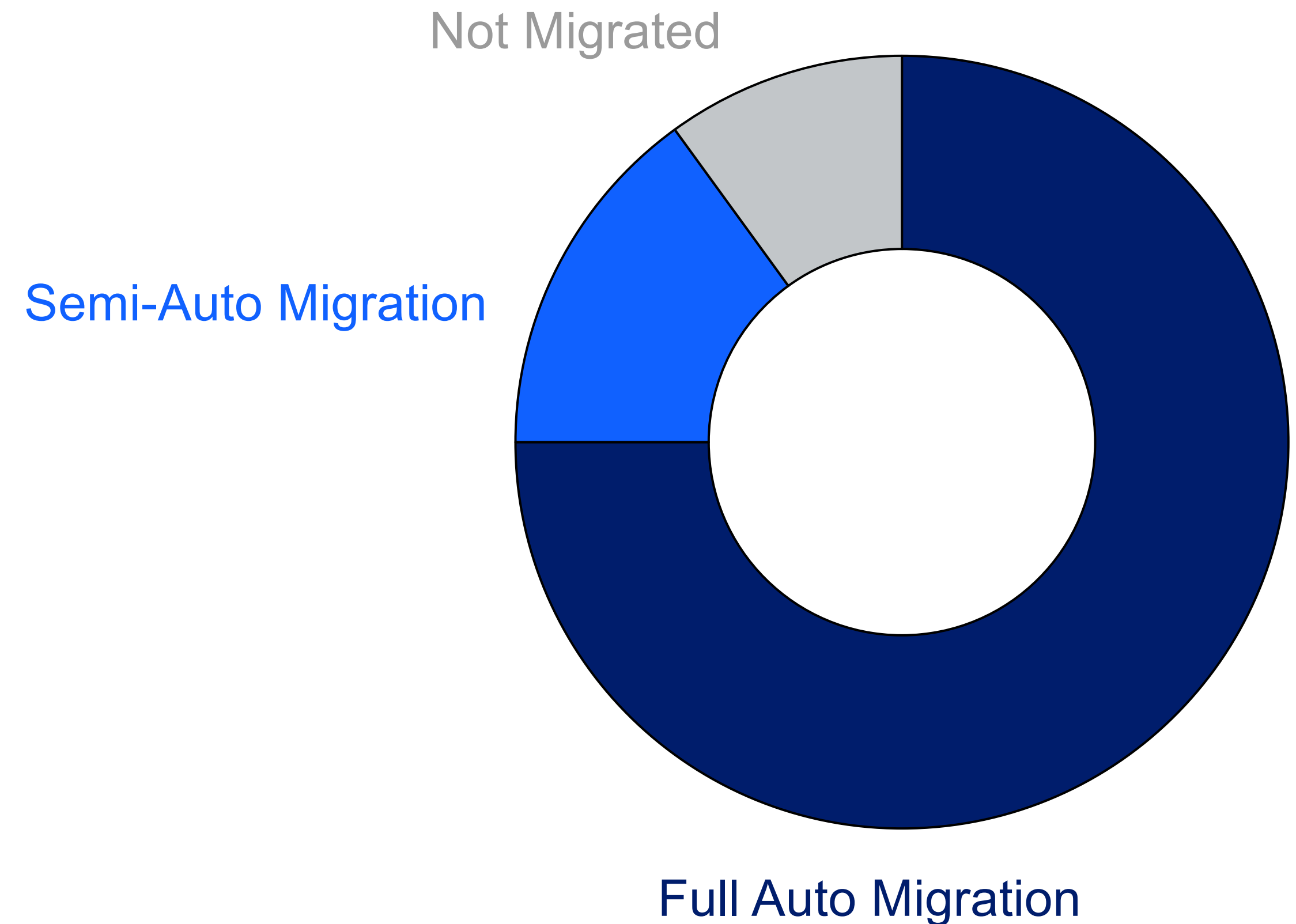
Provider Organization artifacts including APIs, Products, Catalogs, Consumers, subscriptions, custom policies, gateway extensions, etc.

## Semi-Auto Migration

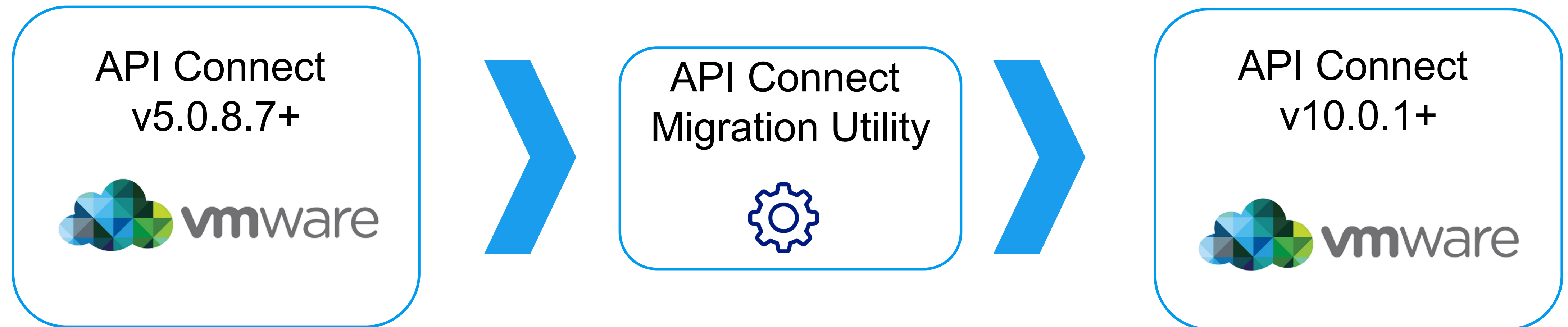
Customization like PDUR and portal customizations, etc.

## Not Migrated

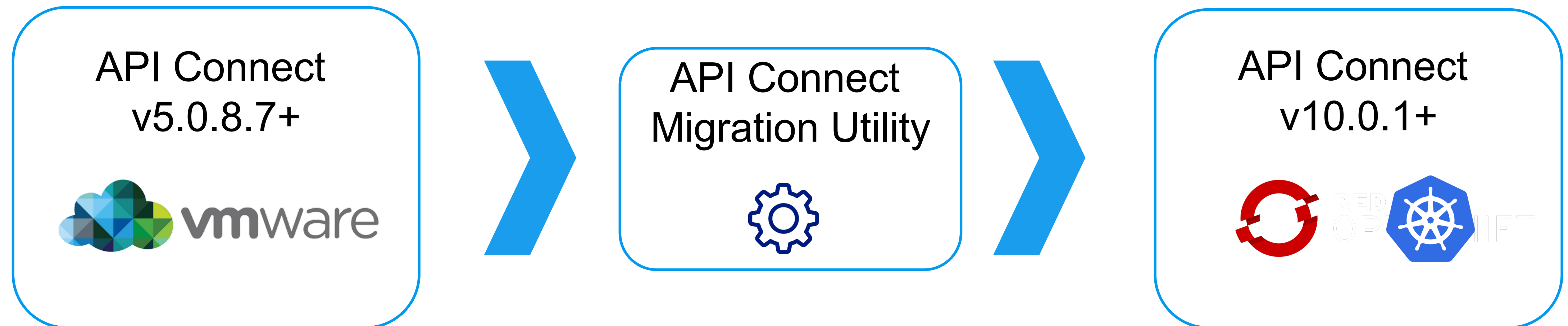
Infrastructure configuration such as server definitions, analytics data, transient data such as invitations etc.



# Overview: VMware OVA to VMware OVA



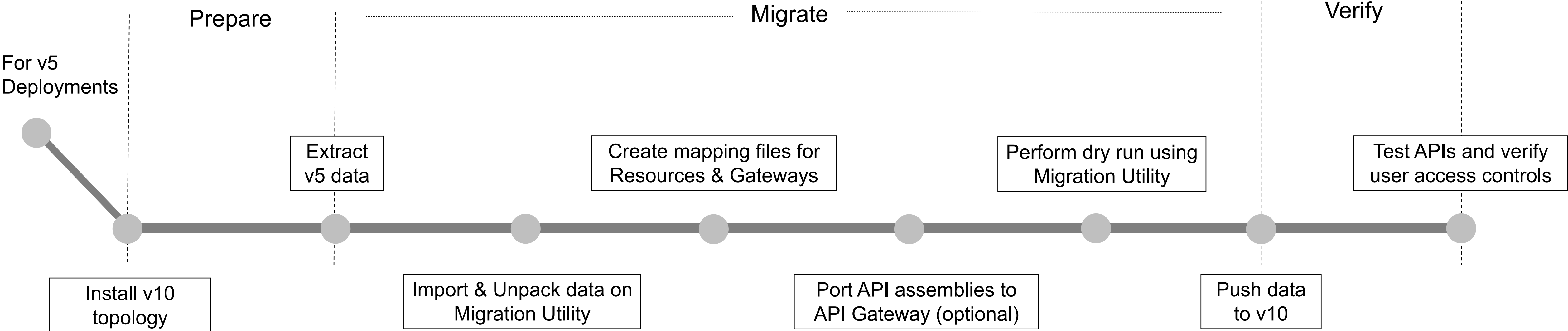
# Overview: VMware OVA to OpenShift or other K8s platforms



You can move from v5 on VMware OVA to v10 on OpenShift 4.x or other K8s platforms using the API Connect Migration Utility (AMU)



# Version migration process summary



# Best Practices for Incremental Migrations

- Migration process allows you to migrate as much or as little content as required
- Migrate data over iteratively (e.g. by provider organization, catalog, application area, etc.)
- Push data iteratively as many times as needed
- Content already present will not be overwritten

# Simple vs Advanced Migration Paths

	<i><b>Simple, Quicker</b></i>	<i><b>Advanced</b></i>
Recommended for...	Where ease of migration is most important	Where API call performance (throughput, latency, etc.) is most important
Selected gateway runtime	v5-compatible gateway service	v10 API gateway service
Performance	Performance improvement of ~5-15%	Significant performance improvement ~5x-10x
Process	Entirely handled by AMU, no development required	Porting steps and additional development required to use new capabilities
API source migration	No modifications required	Some modification of existing API assemblies required
Policies	Full coverage of legacy policies	Some differences in supported policies

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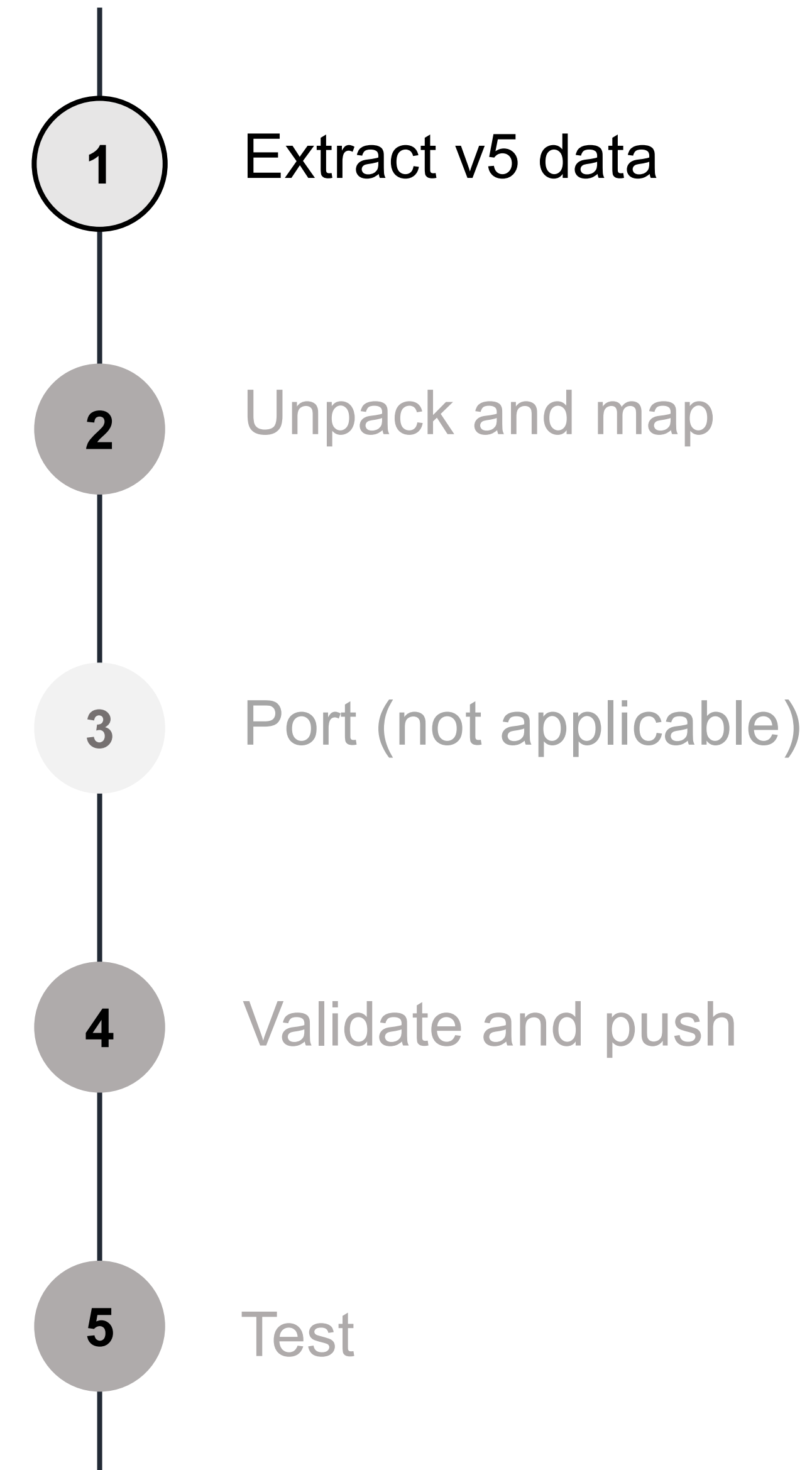
# The simpler, quicker path to migration

- Recommended for scenarios where ease of migration is top priority
- Takes advantage of v5 compatibility built into gateway service
- ~5-15% performance improvement over v5
- No modifications to existing API assemblies required

# Simple Migration Step 1: Extract v5 data

Extract v5 configuration on v5.0.8.7+ including APIs/Products etc. using the *dbextract* command on the enhanced v5 CLI

If using Portal Delegated User Registry (PDUR), use the *pdur\_user\_export* command on the Developer Portal CLI to export data

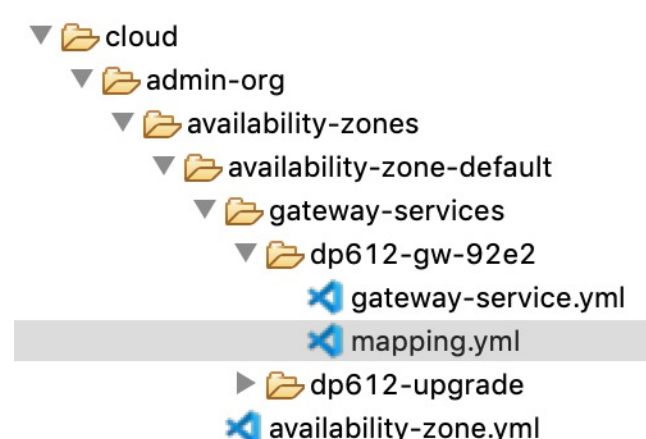




# Simple Migration Step 2: Unpack and Map

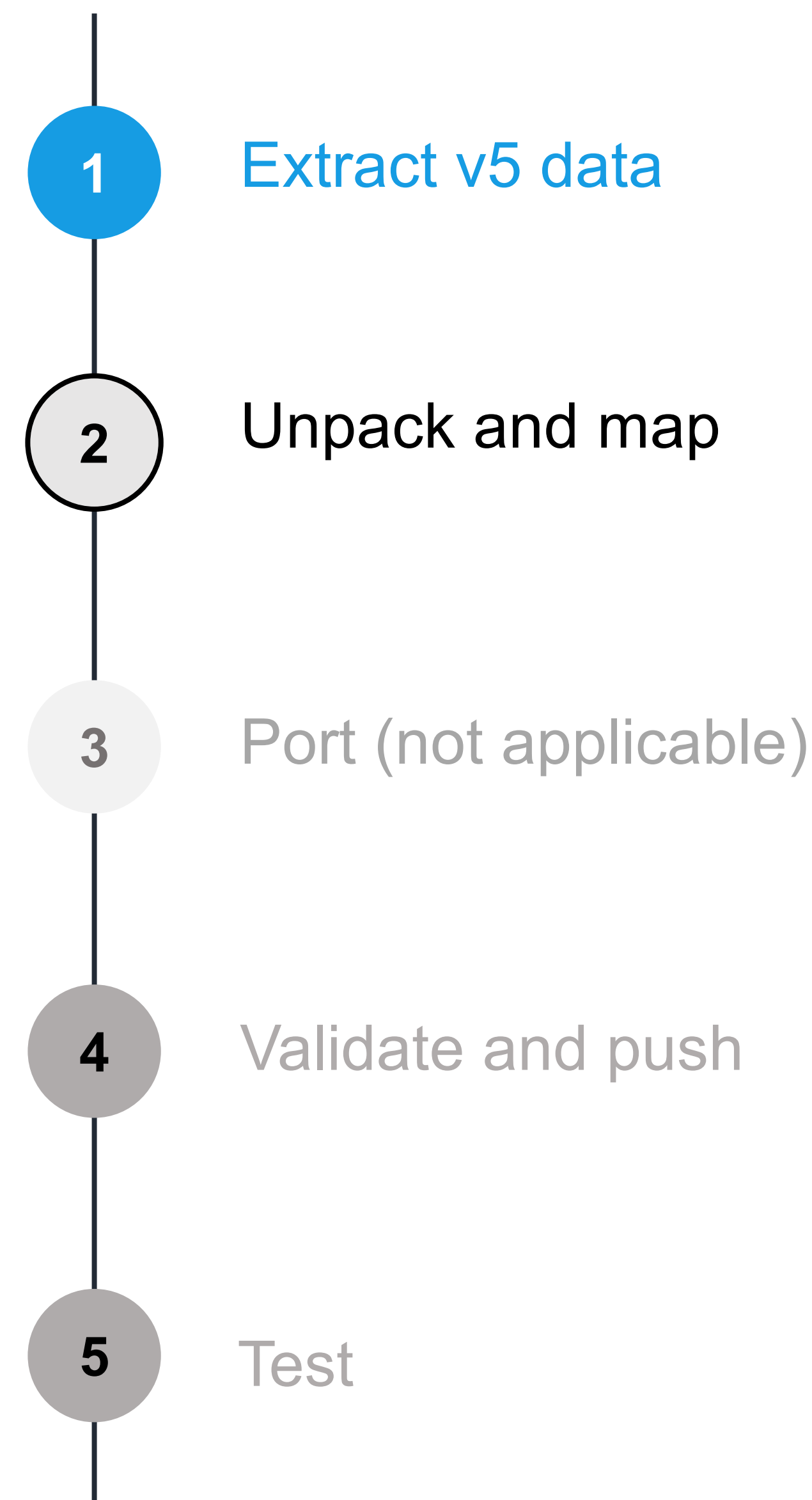
Import and unpack the backup to human-readable YAML files using *archive:unpack* command in AMU

Specify which gateway service from v5 should be mapped to which gateway service on v10



```
gateway-service:
  name: myv5c-gateway
```

Flexibility to map to new resources to reflect any changes on V10 setup topology through mapping files, if desired

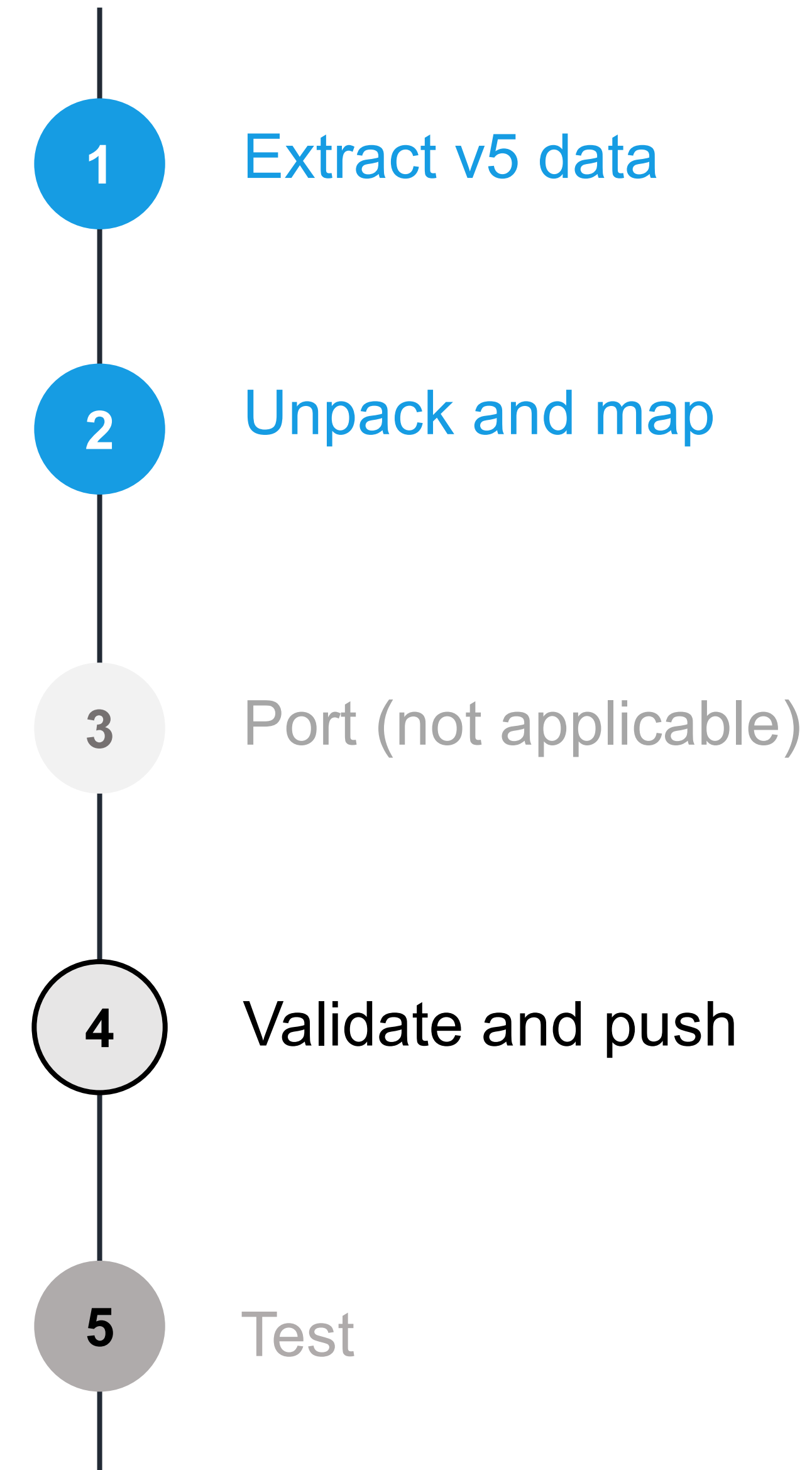


# Simple Migration Step 4: Validate and Push

Validate the mapping and prerequisites using AMU

Simulate a migration with *dry-run* AMU command

Move the APIs and configuration to v10 using the *push* command on the AMU to complete migration

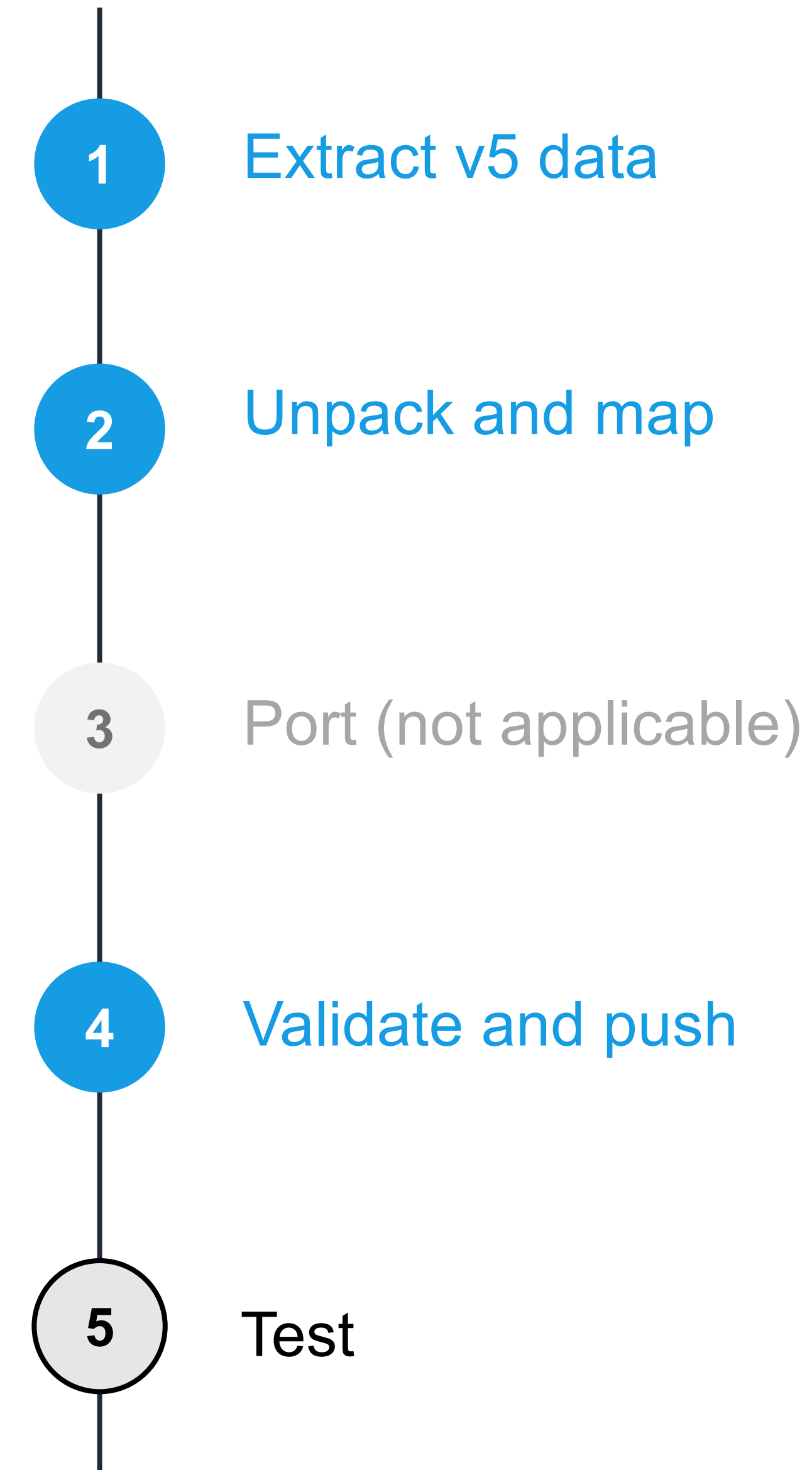


# Simple Migration Step 5: Test

Test the API endpoints to ensure successful migration

Verify user access, on-boarding, etc

Reference the v5 to v10 Migration Runbook Section 4 for verification and testing tips



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# Advanced migration path

- **Recommended for scenarios where performance increase is critical**
- **Takes advantage of new gateway technology** for larger workloads
- **Porting step required**, involves manual work
- **Development required**, but tooling will assist

# Convert API assemblies to new gateway format

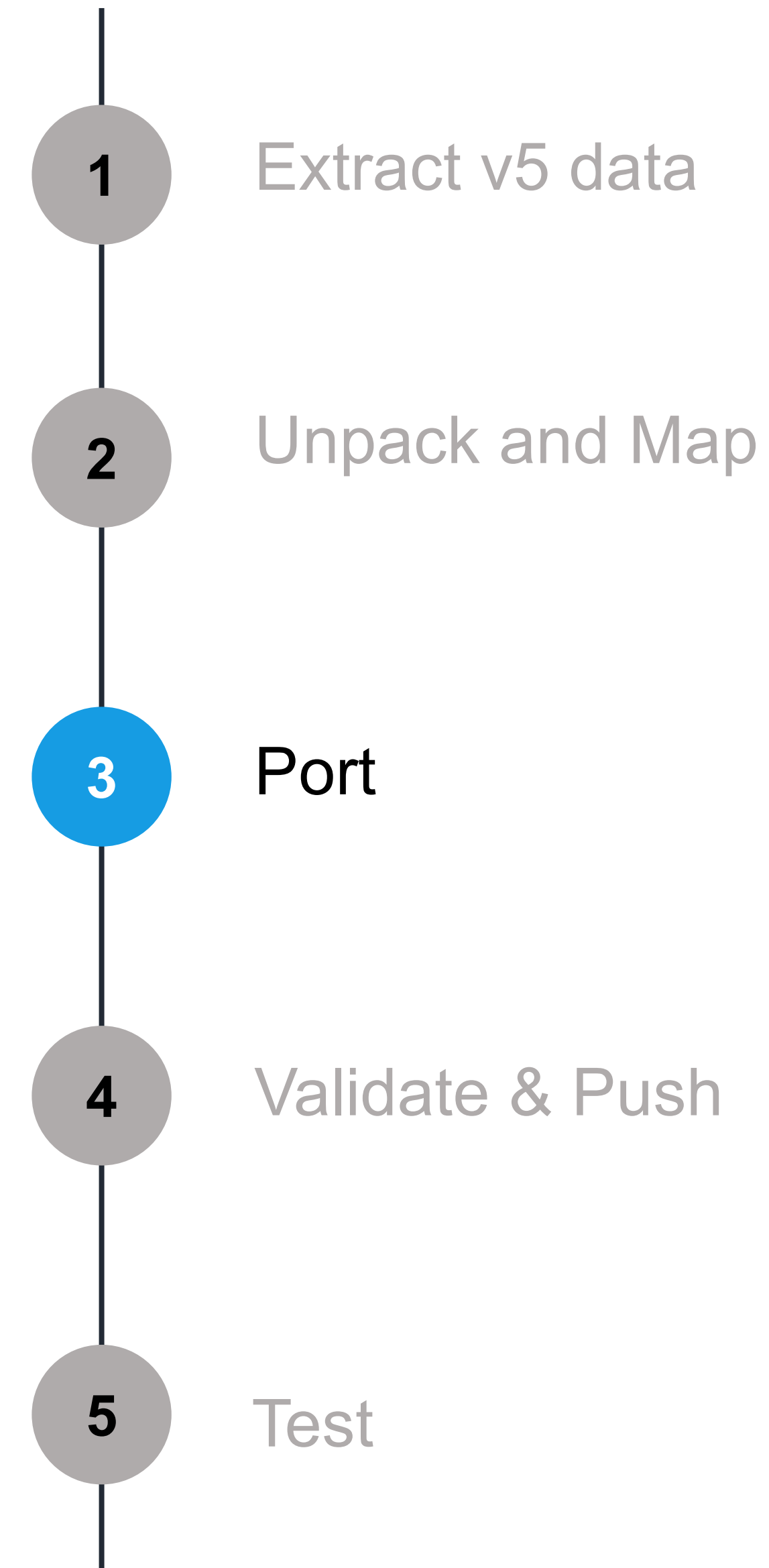
All other steps are identical as in Simple Migration Path

Run porting command *port-to-apigw*

Will reshape API assembly content to take advantage of new gateway features

Updates to assembly code may be required (e.g. gatewayscript code within policies)

Reference [documentation](#) for further guidance on how to update



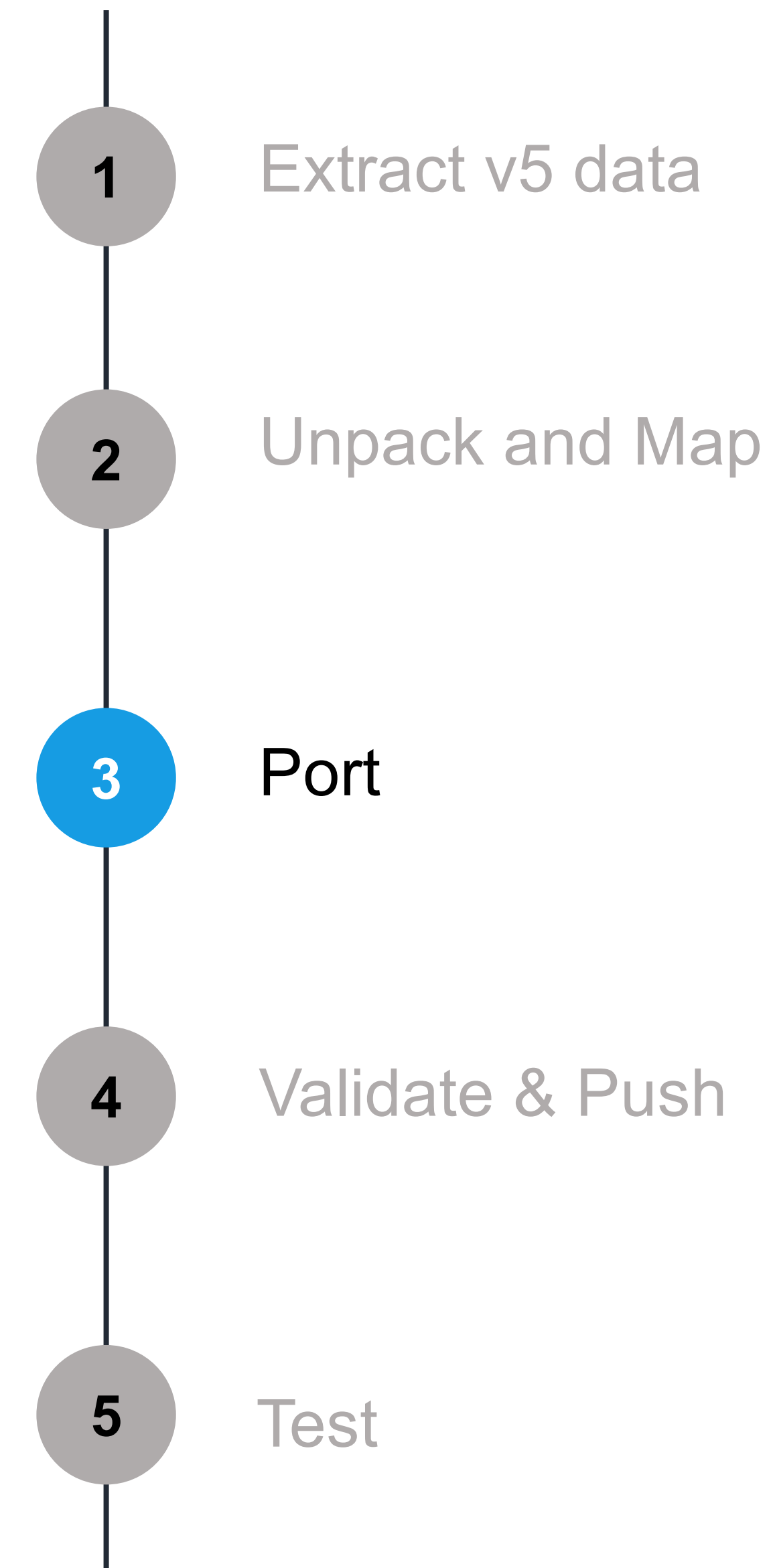


# Additional Porting Options

- Several command line options supported for this command

## Flags:

```
--deploy-policies strings
--enable-api-logging
-h, --help
--invoke-policy string
--no-rename
--optimize-gws
--proxy-policy string
--saveDebugLog string[="default"]
--saveErrorLog string[="default"]
--saveInfoLog string[="default"]
--use-config-file
```



# Migration-Related Enhancements in v10 API Gateway Service

*Reduce manual changes required to port v5 API assemblies*

- ✓ **Policy Emulation** framework
- ✓ Enhanced **gateway extensions** support
- ✓ Enhanced **user-defined policies** support
- ✓ Support for **legacy 1.x policies**
- ✓ Enhanced **compatibility layer** for Gatewayscript policies
- ✓ Support for **flexible preflow** policies

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# Resources Available

## 1. Documentation to plan and execute:

- ✓ **Reference** [API Connect: Upgrade Central](#) for a master list of resources and guidance
- ✓ **Technical runbook:** Nearly 50 pages of detailed technical guidance available. <http://ibm.biz/amu10oh-rb>
- ✓ **Knowledge Center** with step-by-step guidance for v5 to v10

## 2. Tooling: API Migration Utility (AMU) for v5 to v10 migrations

Access the latest AMU tool on [IBM Fix Central](#)

## 3. Need Help?

Open a [Support Ticket](#) with IBM

**Please read:** IBM Support [Must-Gather](#) guidance on what to submit with your ticket

