VMware Cloud Foundation
Cloud Maturity Model - Consumption

Adoption Path for VCF 5.2

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Maturity Stage 2: Self-Service Portal

Configure Infrastructure: Get Started with VCF Automation

Define the cloud environment you intend to use for deployment. Organize and control the placement of the deployments. Resources such as virtual machines, networking, and storage are discovered after adding your cloud.

• Getting Started Video Series - VCF Automation

Configure Infrastructure: Construct a Cloud Abstraction Layer

Within VCF Automation abstract storage, networking, and compute for flexible and agnostic provisioning. Allocate tags and assign resources such as security groups, clusters, and load balancers. Implement a cloud agnostic automation strategy and boost agility by deploying applications to any cloud. VCF Automation can also onboard existing workloads via Onboarding Wizard that walks admins through a process to onboard VMs and apply policies and properties to the onboarded deployment.

• Try the Hands on Lab - Module 1 - Create a Cloud Abstraction Layer

• Add Cloud Accounts to VCF Automation

Configure Infrastructure: Organize Resources and Users into Projects

Create projects to install and set controls for quotas, resource limits, and map which users have access to specific clouds. You can assign the appropriate cloud resources to various groups within the organization by adding users to projects. This allows for self-service consumption.

• Getting Started - Organize Resources and Users into Projects

• Adding and Managing Projects

• Try the Hands on Lab – Module 2 Custom Naming and Projects

Configure Infrastructure: Onboard Existing Workloads for Day-to-Day Management

For existing workloads, you can identify machines that have been discovered but are not yet managed by VCF Automation Assembler. You can create a comprehensive onboarding plan for workloads in the environment using a step-by-step wizard. The machines are now set up, and you can manage them with VCF Automation policies and perform advanced day 2 actions.

• Creating onboarding plans

• Onboard Existing Workloads for Day-to-Day Management

Configure Infrastructure: Configure CCI Building Blocks

Allow developers to spin up infrastructure with familiar Kubernetes commands via UI or command line. Empower developers to streamline their processes and get applications to production faster.

• Configuring and working with the Cloud Consumption Interface

• CCI Video Series Step Two: Activating the Developer Experience

- [Introduction to CCI Architecture](#)

Template Creation: Create VCF Automation Templates

Create and deploy cloud templates declaratively using YAML IaC and integrate them with distributed version control platforms like GitHub. Develop cloud-agnostic templates to specify the machines, applications, and services that users in the organizations can deploy. Using cloud templates from VCF Automation, standardize and expedite automation with repeatable and consistent results.

- [Try Hands On Lab - Module 3 - Create Aria Automation Templates](#)

- [Using IaC and Git to manage Templates](#)

- [Design IaC Templates in VCF Automation](#)

- [Creating and Designing Cloud Templates in VCF Automation](#)

- [More Automation Assembler Template Examples](#)

Orchestrator Workflows: Create a VCF Orchestrator Workflow

Add scripted workflows and tasks with VCF Orchestrator to step up your automation strategy. With the help of scalable workflows and processes provided by VCF Orchestrator, you can automate even more tasks by using a range of programming languages, including Python, PowerShell, NodeJS, and Java. VCF Orchestrator is a modern workflow automation platform that can help increase agility and extensibility for those complex data center tasks.

- [Create an VCF Orchestrator Workflow](#)

- [VCF Orchestrator Workshop](#)

Enabling & Consuming Self Service: Enhance lifecycle management using extensibility in VCF Automation

Build subscriptions to trigger actions based on deployment lifecycle events such as create, read, update, and delete. Actions are version controlled and polyglot (e.g., NodeJS, Python, JSON). Reduce complexity by adding extensibility when events happen in the deployments and save time by automating operations.

- [Try Hands on Lab - Module 6 Enhance Lifecycle Management Using Extensibility in VCF Automation](#)

- [Extending and Automating Application Lifecycles with Extensibility](#)

Enabling & Consuming Self Service: Applying Governance and Policies for the Private Cloud

VCF Automation provides a set of policies that can be applied to deployment such as lease and approval policies. Apply governance via tags and other constraints in order to ensure workloads go to the proper location based on compliance or company standards.

- [Setting up Automation Service Broker policies](#)

Enabling & Consuming Self Service: Create a catalog for Self-Service Consumption

Empower users with self-service consumption of Kubernetes and infrastructure resources "as a Service" via Self-Service Catalog, API, or Cloud Consumption Interface (CCI). Learn how to build a curated content catalog where users can request items to deploy application and services. As-a-service such as XaaS, IaaS, CaaS, and more are available via items backed by orchestrator or ABX actions. Also, each catalog item form can be highly customized using a form designer with drag and drop elements.

• Create a Catalog for Self-Service Consumption

• Adding Content to the Catalog

Enabling & Consuming Self Service: Customize Catalog Request Forms

Create custom forms to determine how the information of a request appears when a user clicks on a catalog item. By creating a more advanced form, you can have conditional drop-down selections, connect to a CMDB, data grids, and much more. Accelerate agility and add value to your organization by providing relevant and specific options at the time of request.

• Try the Hands on Lab - Module 5 - Customize Catalog Request Forms

Maturity Stage 3: API /CLI

API Consumption: How to use the VCF Automation API

As a VCF Automation user or customer, you can perform API functions programmatically by using REST API service calls.

• VCF Automation API - How to Use

Maturity Stage 4: Infra-as-Code:

Terraform Providers: Construct a Cloud Abstraction Layer with the VCF Terraform provider

Within VCF Automation abstract storage, networking, and compute for flexible and agnostic provisioning. Allocate tags and assign resources such as security groups, clusters, and load balancers. Implement a cloud agnostic automation strategy and boost agility by deploying applications to any cloud. With the VCF Terraform provider you can configure VCF Automation with a desired state.

• Getting started with the vRealize Automation Terraform Provider

• Infrastructure setup example using the VCF Terraform provider

Cloud Consumption Interface (CCI): Create CCI Based Deployments

The CCI based template elements provide resource types to deploy Supervisor Namespaces, Supervisor Resources, etc. From defining the ports on a load balancer to injecting cloud-init scripts for in-guest configurations, the CCI elements in the Cloud Template can help application teams deliver apps and services using a modern methodology.

• Cloud Consumption Interface (CCI) Template Elements

• Cloud Consumption Interface (CCI) Service UI Enhancements in VCF

• Deploying Opencart Application using Cloud Consumption Interface(CCI)

Infra-as-Code: Action-based extensibility (ABX)

Action-Based Extensibility (ABX) uses streamlined scripts of code within Automation Assembler to automate extensibility actions. Action-based extensibility provides a lightweight and flexible run-time engine interface where you can define small scriptable actions and configure them to initiate when events specified in extensibility subscriptions occur.

• Design Extensibility using ABX Flows

• Extensibility Design for Private Cloud

Infra-as-Code: Advanced Templates

VCF Automation provides various ways to take a basic template and expand it to more advanced and complex use cases. Customers can create their own resources, day 2 actions and integrate with tools like ABX for extensibility. Templates also allow for advanced syntax expressions and logic.

• Technical Deep Dive IaC Templates

• Custom Resources and Day 2 Actions in Templates

• Increase Flexibility with Template Expressions

• Template Description with Explanations