



# VFrame Data Center Integration and Operations

**Length**  
3 days

**Format**  
Lecture/lab

**Track**  
Support

**Version**  
1.2

## Course Description

Cisco VFrame Data Center is a cross-functional services orchestration and provisioning platform that is designed to simplify management of virtual services environments. VFrame DC enables coordinated provisioning of services across the data center infrastructure as an orchestrated, virtualized set of hosting services, with dynamic, policy-driven provisioning interfaces.

This course provides you with hands-on experience in configuring and managing VFrame DC. You will learn how to discover server, storage, and network resources; manage resource pools and Service Templates; deploy and operate Service Networks; manage users, roles, and contexts; and perform monitoring and reporting tasks.

## Who Should Attend

This course is designed for server, network, and storage administrators and engineers who will be implementing and operating VFrame Data Center solutions.

## Recommended Prerequisite Skills

- Microsoft Windows *or* Linux server administration
- Basic familiarity with *either* Cisco data networking *or* storage networking technologies

## Related Training

*VFrame Data Center Planning and Design (VPAD)*

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## Learning Objectives

After you complete this course, you will be able to:

- Explain how VFrame DC enables service-oriented data center provisioning
- Describe the specific configuration required for devices to be discovered and managed by VFrame DC
- Discover server, storage, and network devices
- Create and manage resource pools
- Describe the Service Template design process
- Operate a Service Network
- Manage users, roles, and contexts
- Manage faults and resource states
- Monitor resources and create resource management reports





# VFrame Data Center Integration and Operations

## Course Outline

### Module 1: VFrame DC Overview

#### Lesson 1: Service-Oriented Provisioning

Dedicated infrastructure  
Mature Processes  
Logical vs Physical View  
The Service View

#### Lesson 2: Product Capabilities

Service Provisioning  
Deployment Process Overview  
Resource Pooling  
Template-Based Provisioning  
Automating Operational Process  
Supporting Third-Party Devices  
Macros Overview  
Enterprise Management System Integration

#### Lesson 3: VFrame DC Deployment Roadmap

Discover, Design, Deploy and Drive  
Discovery Overview  
Design Overview  
Deployment Overview  
Operations Overview

### Module 2: Discovery

#### Lesson 1: Starting VFrame

Network Setup  
Completing the Initial Configuration

#### Lesson 2: Understanding Device Discovery

Discovering Network Resources  
Discovering Server Devices  
Discovering Storage Devices  
Managing Device Credentials

#### Lesson 3: Discovering Network Devices

Expected Network Setup  
Managing Network Devices  
Managing Firewall Services Modules  
Managing Content Switching Modules

#### Lesson 4: Discovering Servers

LOM Manager Templates  
LOM Managers  
Discovering LOM Managers  
DHCP Relay

#### Lesson 5: Managing Images

Image Management  
Creating Images  
Using Sysprep Files

#### Lesson 6: Discovering Storage Devices

Storage Templates  
Storage Array Mode  
Fabric Mode  
Discovering Storage Managers  
Managing NAS Devices  
LUN Masking and Mapping

### Module 3: Design

#### Lesson 1: Using Resource Pools

Resource Pooling  
Static and Dynamic Resource Pools

#### Lesson 2: Understanding Templates

Understanding Templates  
Basic Template Components

#### Lesson 3: Designing Service Templates

Service Template Elements  
Service Template States  
Service Network Template Change Control  
Creating a Service Template  
Block Variables

#### Lesson 4: Deploying a Basic Service Network

Service Network Design Overview  
Service Network Design Elements  
Pool Selection  
Server Group Definition  
Variables and Aliases  
Basic Deployment Workflow  
Understanding Network Operations



Premier  
Certified



Learning  
Solutions



# VFrame Data Center Integration and Operations

## Course Outline

### Module 3 (continued)

#### Lesson 5: VFrame DC and VMware Integration

VMware Overview  
VFrame and VMware Integration Scenarios

### Module 4: Deployment

#### Lesson 1: Operating Service Networks

Service Network Operations Control  
Virtual Resource State Review  
Service Network State Review  
Testing a Service Network  
Troubleshooting Service Network Operations and Design

#### Lesson 2: Managing Users, Roles, and Contexts

Virtual Contexts  
The AdminContext  
Designing User Contexts  
Configuring Users and Roles

### Module 5: Operations

#### Lesson 1: Managing Faults

Faults and Fault States  
Fault Status Summary Display  
Resource Health Monitoring

#### Lesson 2: Reports

Understanding Reports  
Working with Reports  
Troubleshooting Fault Management and Reporting

## Course Labs

**Lab 1:** Initialize the VFrame Database

**Lab 2:** Discover Network Devices

**Lab 3:** Discover Storage Devices

**Lab 4:** Discover Servers

**Lab 5:** Create Resource Pools

**Lab 6:** Deploy a Simple Service Network

**Lab 7:** Deploy Complex Service Network with SAN and VMWare ESX

**Lab 8:** Design a Service Network

**Lab 9:** Operations and Reporting

**Lab 10:** Challenge Lab



Premier  
Certified



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