



**Datanet**  
SYSTEMS INTEGRATION  
SOITRON GROUP

# Automate Datacenter Service Delivery

## Cisco UCS Director

Mihai Gagea  
mihai.gagea@datanets.ro



# About Datanet Systems

- ✓ Datanet is one of the most important **integrators** of complex IT solutions;
- ✓ **Leader** in the unified communications systems, videoconference and contact center infrastructure solutions field;
- ✓ **Cisco Partner** with the largest market share in Romania;
- ✓ **Cisco Gold Partner** since 2004;
- ✓ **Cisco Learning Partner** since 2005;
- ✓ It was awarded “**Cisco Enterprise Partner of the Year 2015**” for **EMEAR** region
- ✓ Actually, it has the **biggest team of Cisco certified specialists** in Romania.



# Datanet Services Portfolio



**ASSESSMENT**



**DESIGN**



**IMPLEMENTATION**



**PROJECT  
MANAGEMENT**



**IT INFRASTRUCTURE  
SUPPORT**



**OPERATIONS  
OUT-TASKING**



**FINANCING  
OPTIONS**



**PROFESSIONAL  
TRAINING**



# Optimized IT, are we there yet?

Cisco UCS Director



OPERATIONS  
MANAGER



CHANGE  
MANAGER



NETWORK  
ADMIN



VIRTUALIZATION  
ADMIN



SERVER  
ADMIN



STORAGE  
ADMIN

Many  
More

## Different tools used by different teams

- Inconsistent data and reporting
- Meetings and manual processes to synchronize activities
- Unable to gain a holistic view
- Troubleshooting and analysis become very complex

# Introducing Cisco UCS Director

Broad Multi-Vendor Infrastructure Support

## UCS Director

Converged



VM



L4-L7



Compute



Network



Storage



# Converged Infrastructure View

- **Sites** allow location based organization of resources
- **Pods** are containerized data center stacks
- Visual Healthcheck of datacenter infrastructure

The screenshot displays a 'Converged' infrastructure management interface. At the top, it shows the current site as 'Datagnet\_Site' and the pod as 'Datagnet\_Pod'. Below this, a tree view shows a 'Generic' pod containing 'Multi-vendor' resources. The main area is divided into five horizontal sections, each representing a different infrastructure layer:

- Virtual:** Contains 'Admin-RHEL-KVM' (Red Hat), 'VMWare-172.16.105.80' (VMware), and 'datagnet' (Microsoft).
- Compute:** Contains 'Admin-UCS-LAB' (Cisco UCS) and 'Datagnet Rack Group' (Cisco).
- Network:** Contains various network devices including 'N5672A', 'N5672B', 'N1KV', 'ASAV', 'UCS-MDS', 'bigip-1.datagnets.ro', and 'Admin-APIC'.
- Storage:** Contains 'Netapp-admin' (NetApp) and 'adrian.uta-vnx' (EMC).

Each resource icon includes a green status indicator, suggesting a healthy state.

# Orchestration and Workflows

## Task

- Atomic Operation performed on a Managed Node
- Building block to perform a complex operation

## Task Library

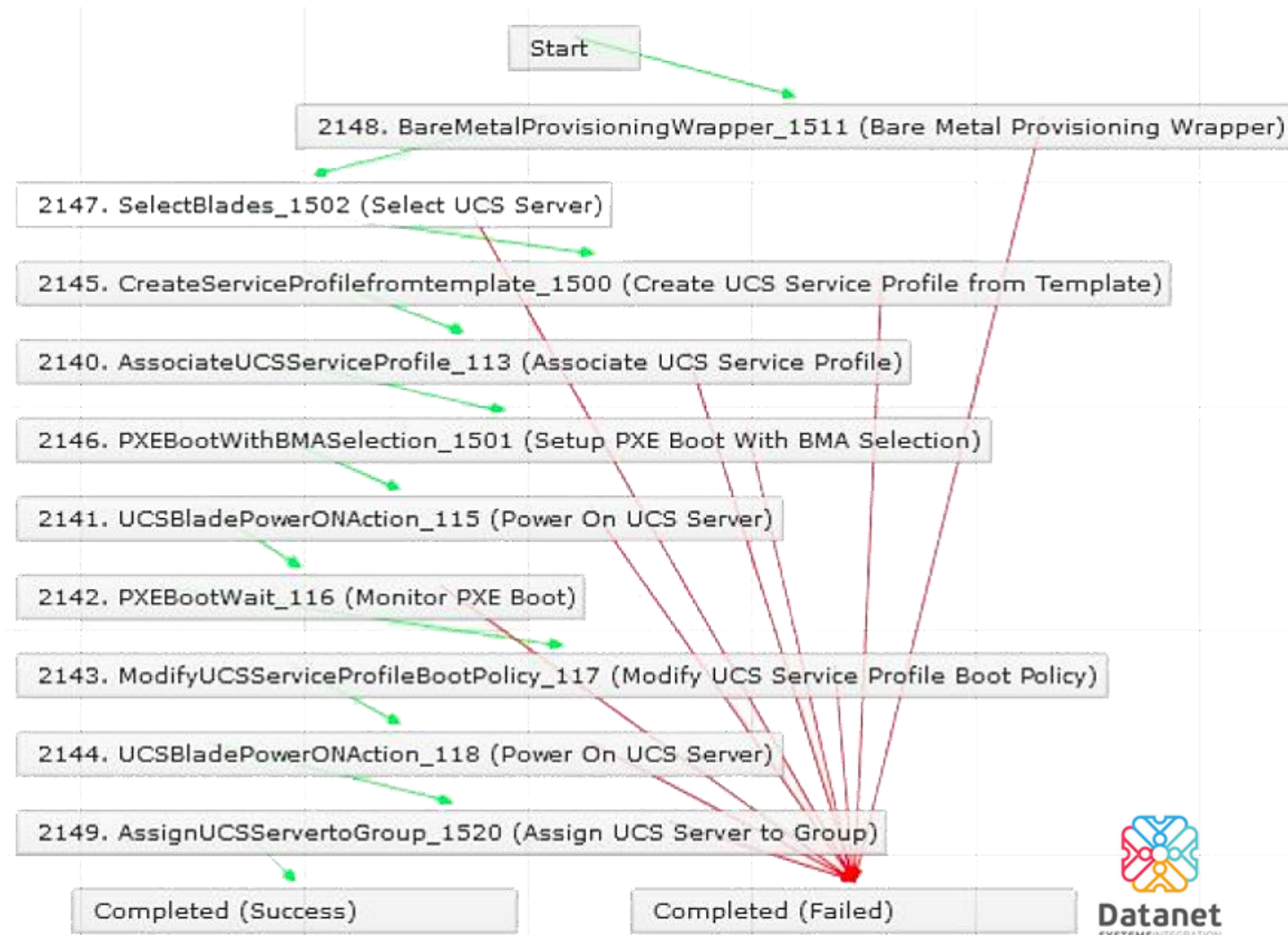
- 1000+ Tasks Out of the Box
- Custom Tasks (JavaScript, PowerShell, SSH)

## Workflow

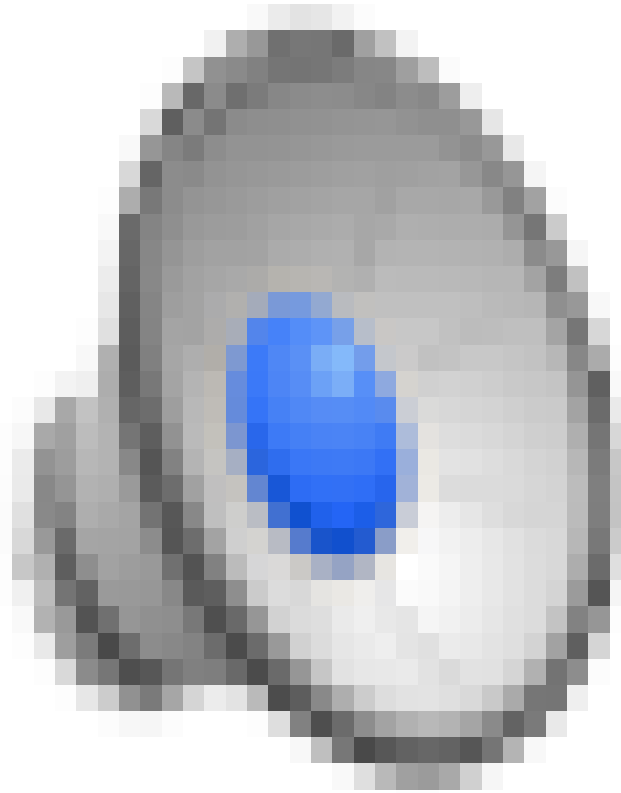
- Complex logic (loops, if-else)
- Approvals

## Catalog

- Self-service portal
- Start, stop, rollback workflows



# Workflow demo recording (5 min)



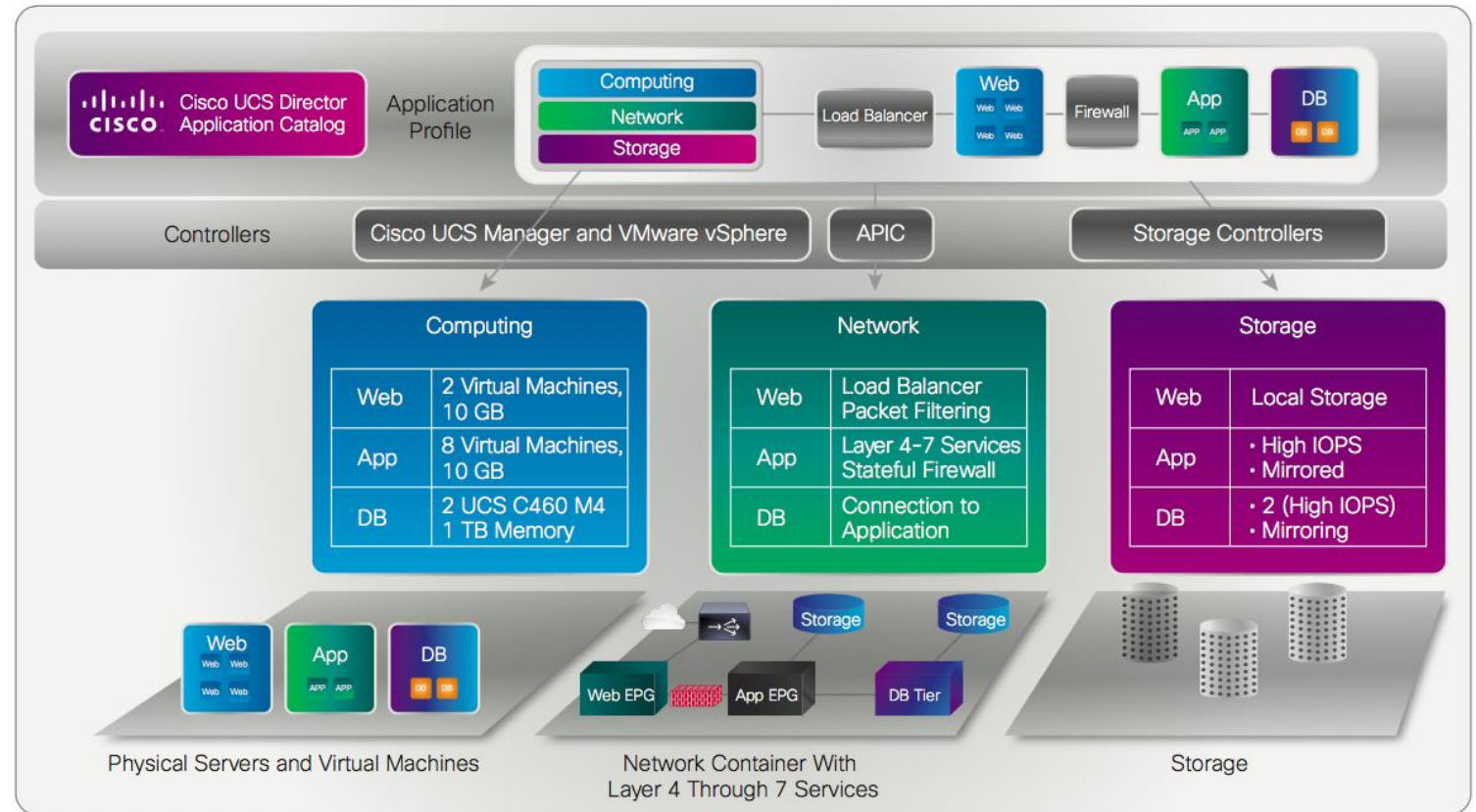
# Cisco APIC integration

UCS Director uses APIC to create a Multitenant Deployment.

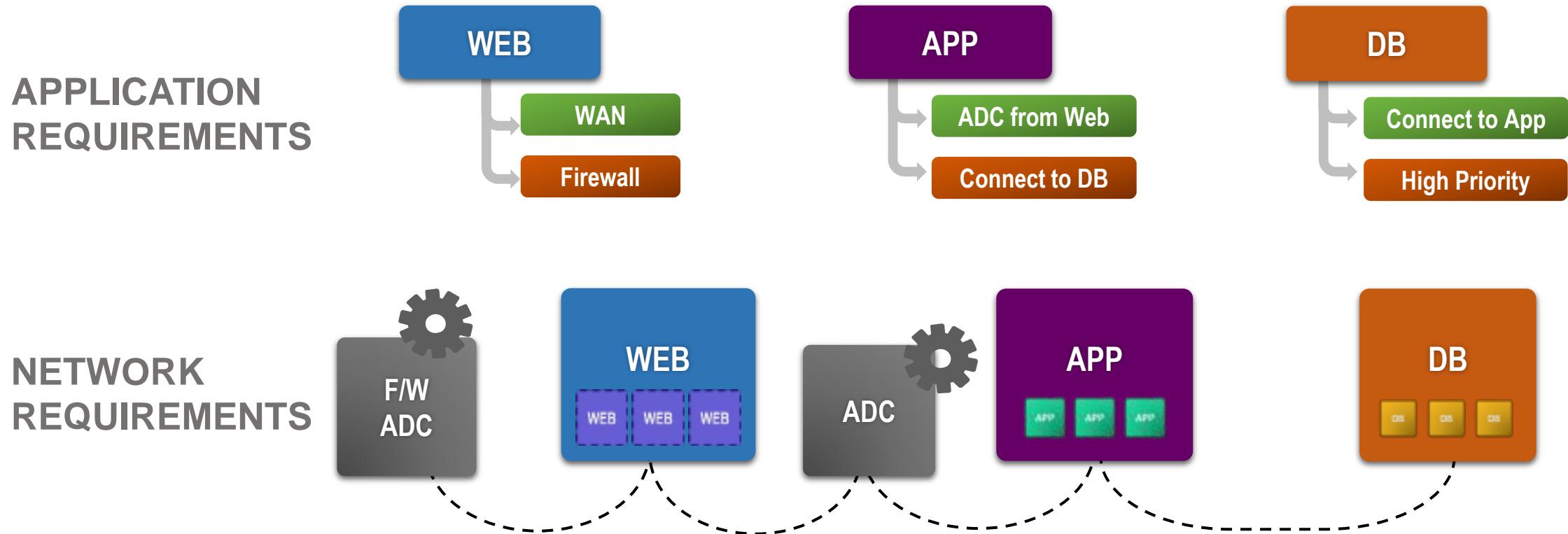
Tenants are completely isolated creating a secure environment.

Contracts define resource consumption between application components.

Application catalog provides simplicity and reusability.



# ACI understands APPLICATION Needs



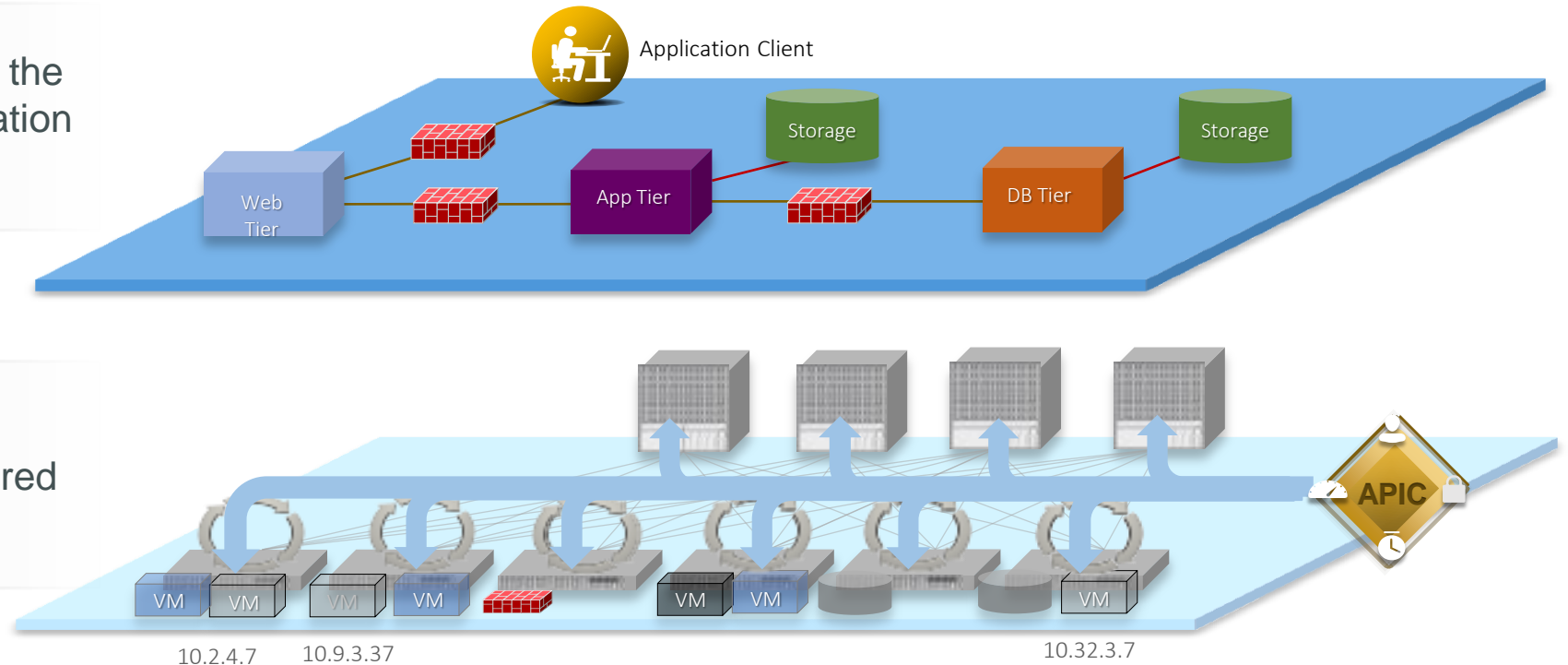
Application requirements are driving network requirements.  
Network infrastructure must not add constraints to application development.

# Application Policy Model

Application policy model: Defines the application requirements (application network profile)



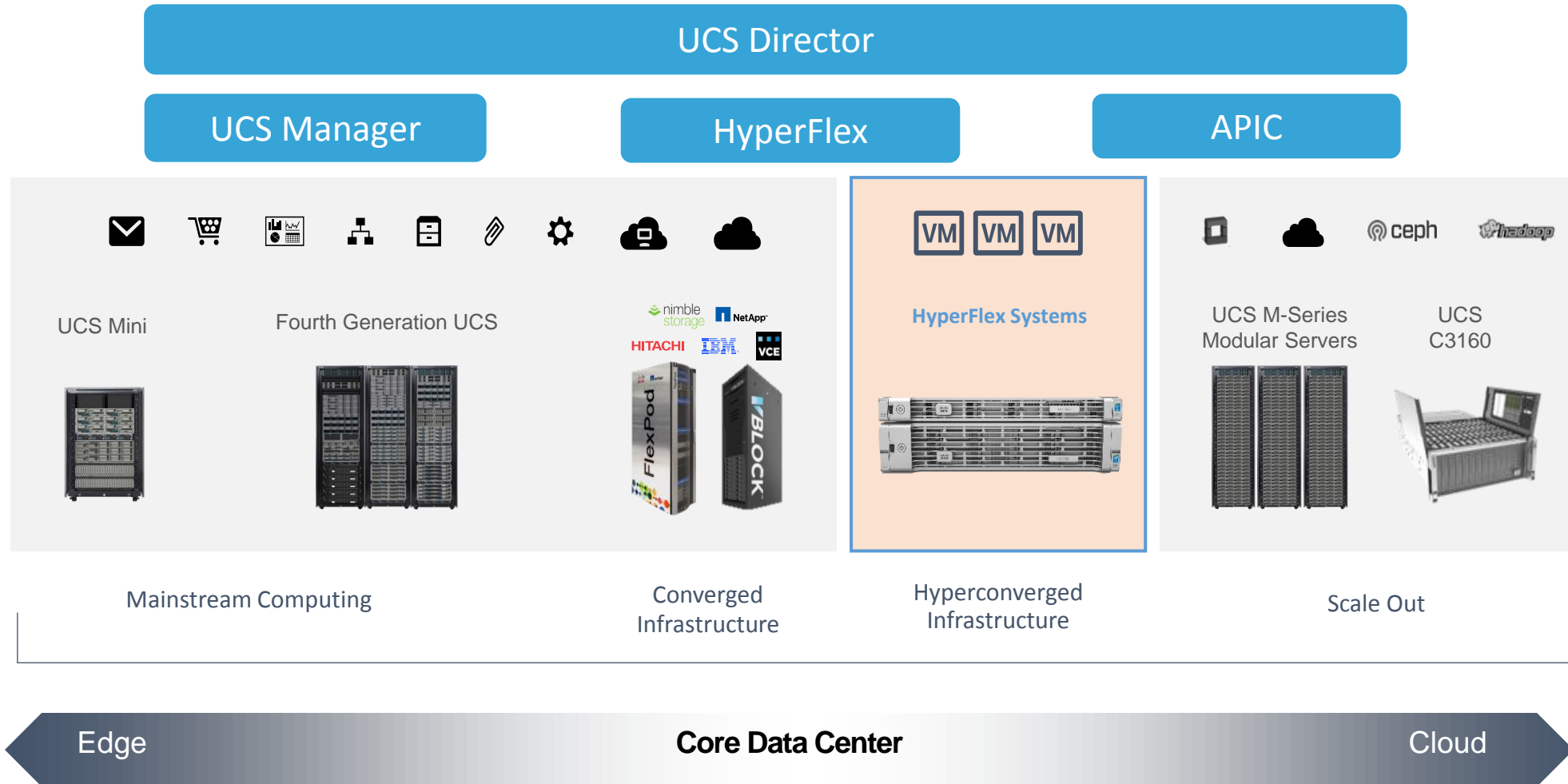
Policy instantiation: Each device dynamically instantiates the required changes based on the policies



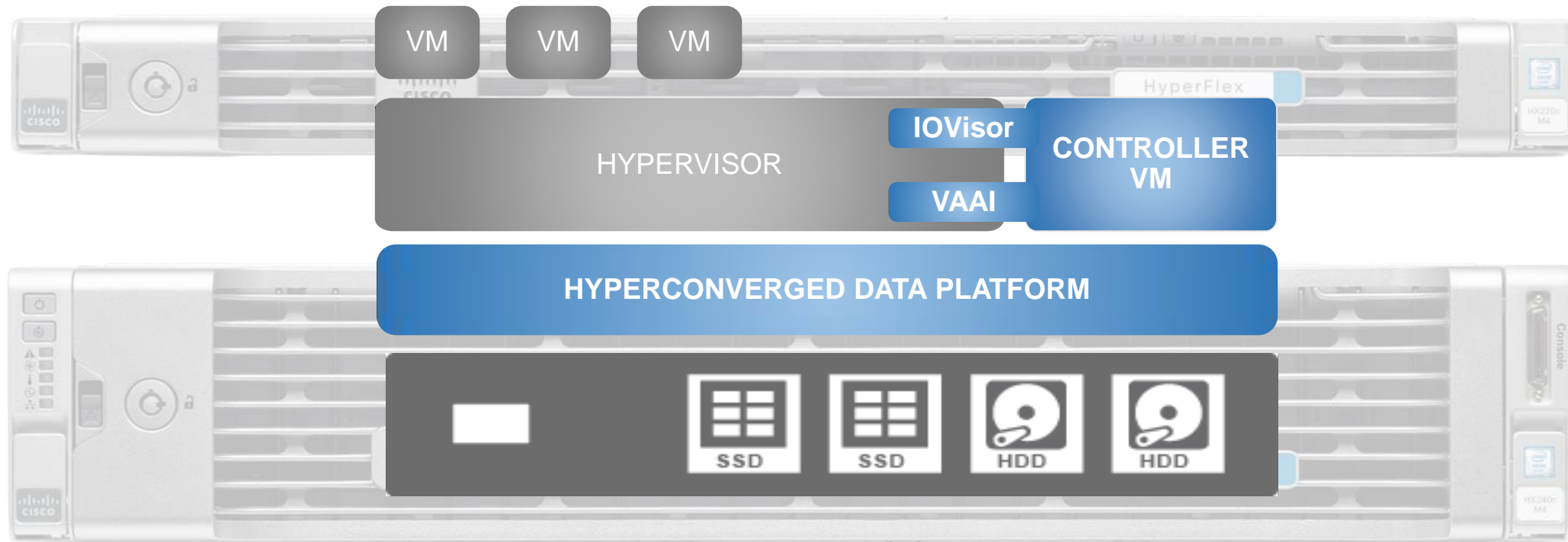
All forwarding in the fabric is managed through the application network profile

- IP addresses are fully portable anywhere within the fabric
- Security and forwarding are fully decoupled from any physical or virtual network attributes
- Devices autonomously update the state of the network based on configured policy requirements

# Cisco Hyperflex



# Software Modules Inside the Server

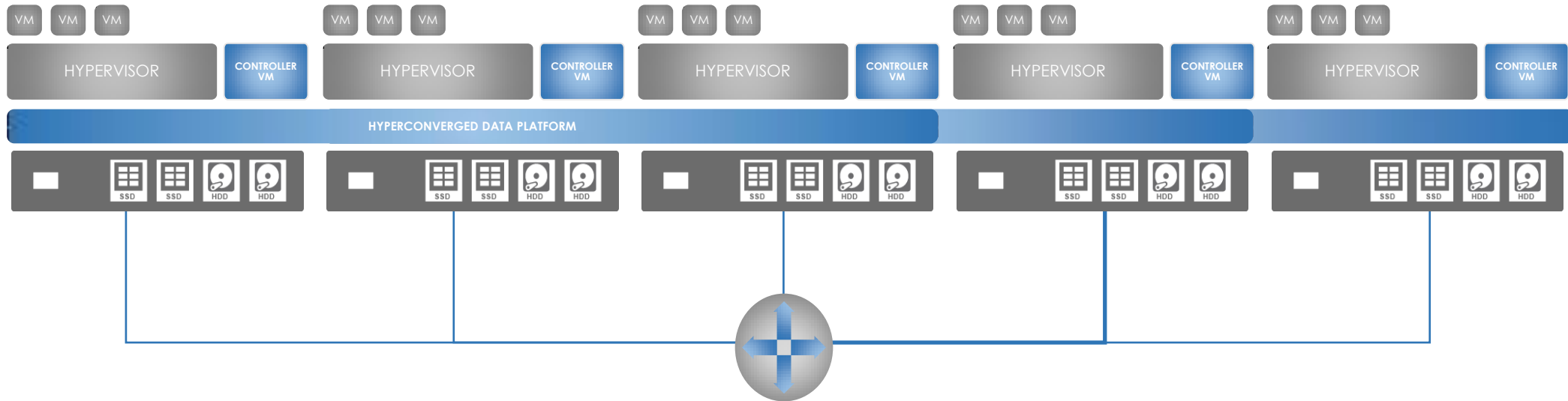


Controller VM has  
Direct access to drives

VAAI Plugin offloads  
snapshots and clone  
operations

IOVisor Module Presents NFS  
to ESX and Stripes IO

# Hyperconverged Scale Out and Distributed File System



Start with as few as three nodes

Hyperconverged Data Platform installs in minutes

Add Servers, One or More at a Time

Linearly Scale Compute, Storage Performance and Capacity

Distribute and rebalance data across servers automatically

Retire older servers

# Cisco UCS Director Summary

Automate and Orchestrate Your IT Process

Single-pane Infrastructure Management

Policy-based Infrastructure Provisioning

End-to-end Infrastructure Process automation

Complete Infrastructure Lifecycle Management





**Datnet**  
SYSTEMS INTEGRATION

SOITRON GROUP

# Thank you!

