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Wiki Webinar:

Vlot omschakelen naar de cloud met Citrix Cloud Services en Microsoft Azure

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CITRIX CLOUD SME

JUNE 21, 2018

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WHEN YOU CAN'T FIND THAT FILE YOU WERE JUST USING A MINUTE AGO.

WHEN YOU'RE USING CITRIX.

COMPLEXITY COSTS
$800
PER USER
PER YEAR

PRODUCTIVITY PARADOX

ANNOUNCING
CITRIX WORKSPACE APP

Everything you need to be productive in one experience

EVERYTHING PEOPLE NEED TO BE PRODUCTIVE IN ONE EXPERIENCE

XenApp and XenDesktop Service

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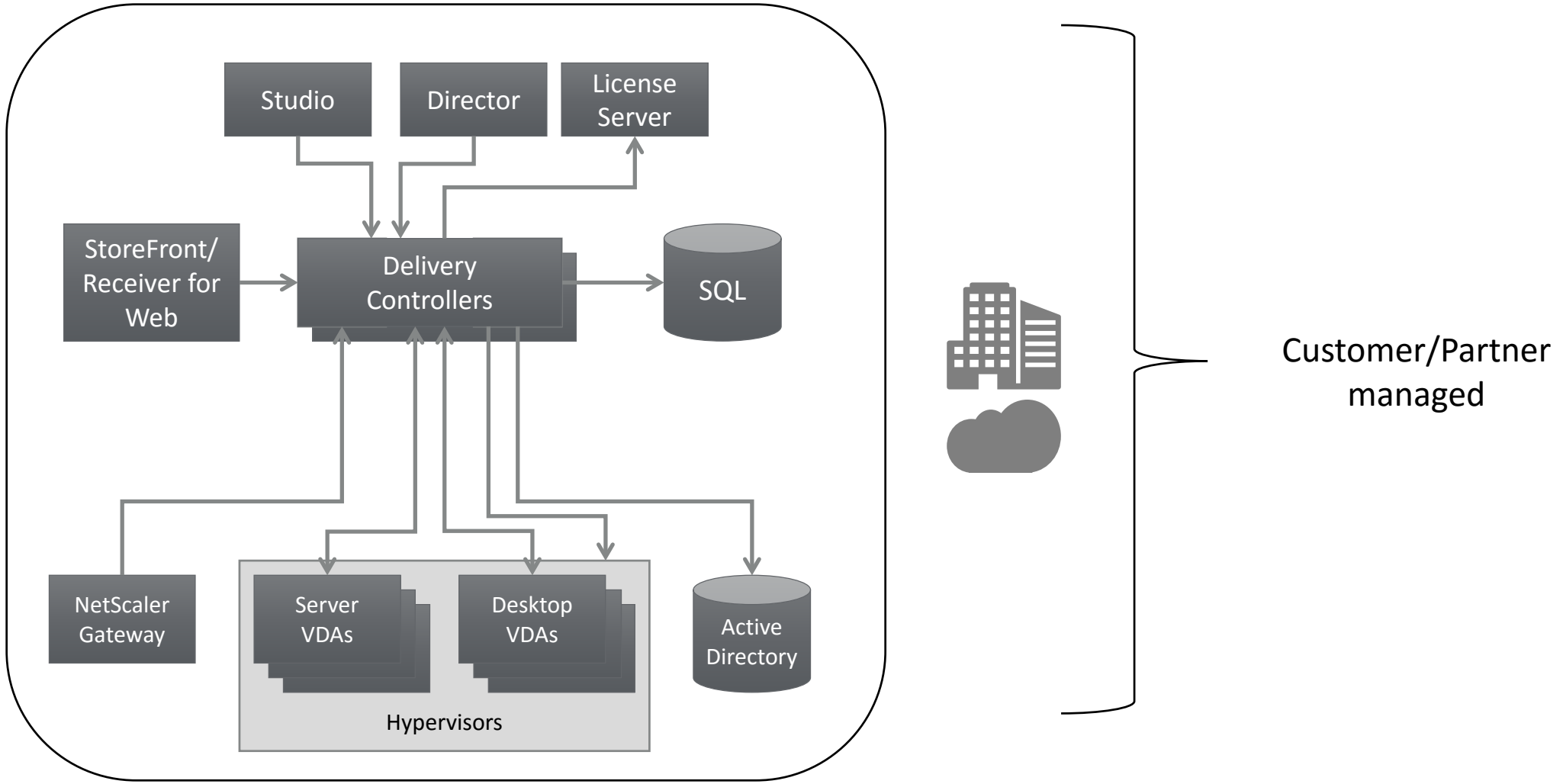
Traditional Deployment



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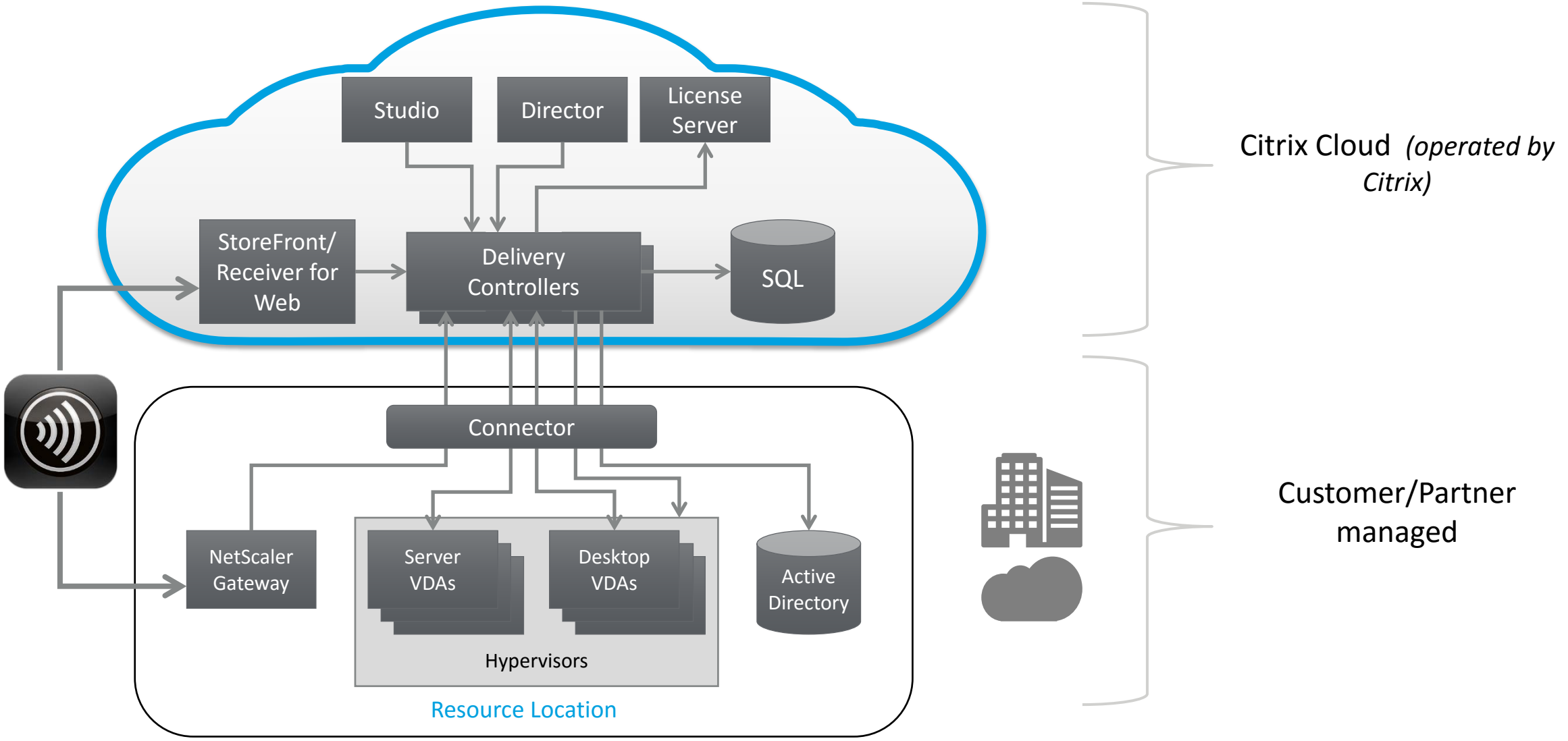
XenApp and XenDesktop Service



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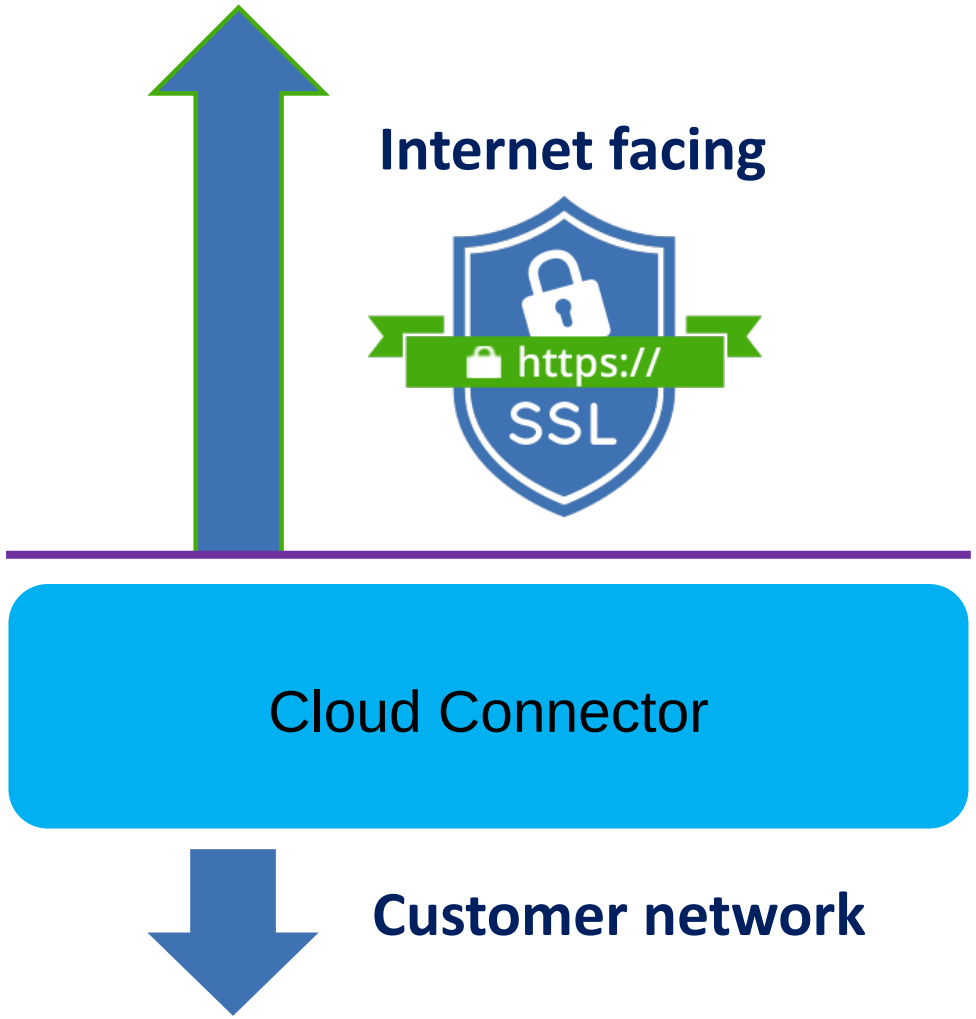
What is the cloud connector?

Bridge the gap between the cloud and the customer's resource location



- Simply to deploy; cloud managed
- Does not operate as a VPN
- All connections are egress (port 443 only)
- Supports enterprise web proxies
- Secured by service key per-connector
- Self updating, evergreen

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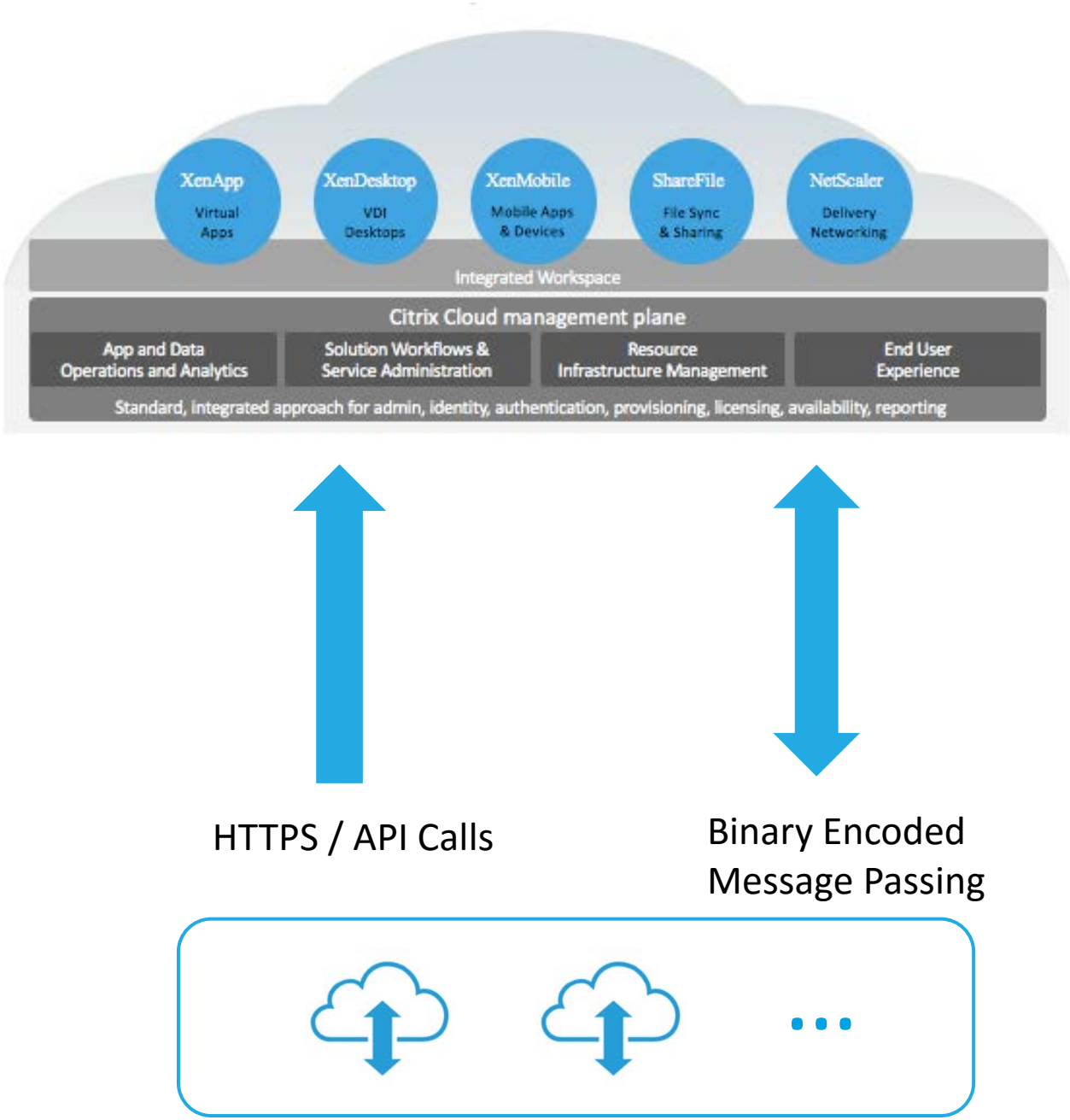
Connector Communication

Connector to/from the cloud



Inbound

- Messages sent to the connector(s) rendezvous in the cloud at a special cloud service. Messages are then transferred via a Web Socket architecture
- These messages are load balanced across connectors

Outbound

- Standard HTTPs Web requests

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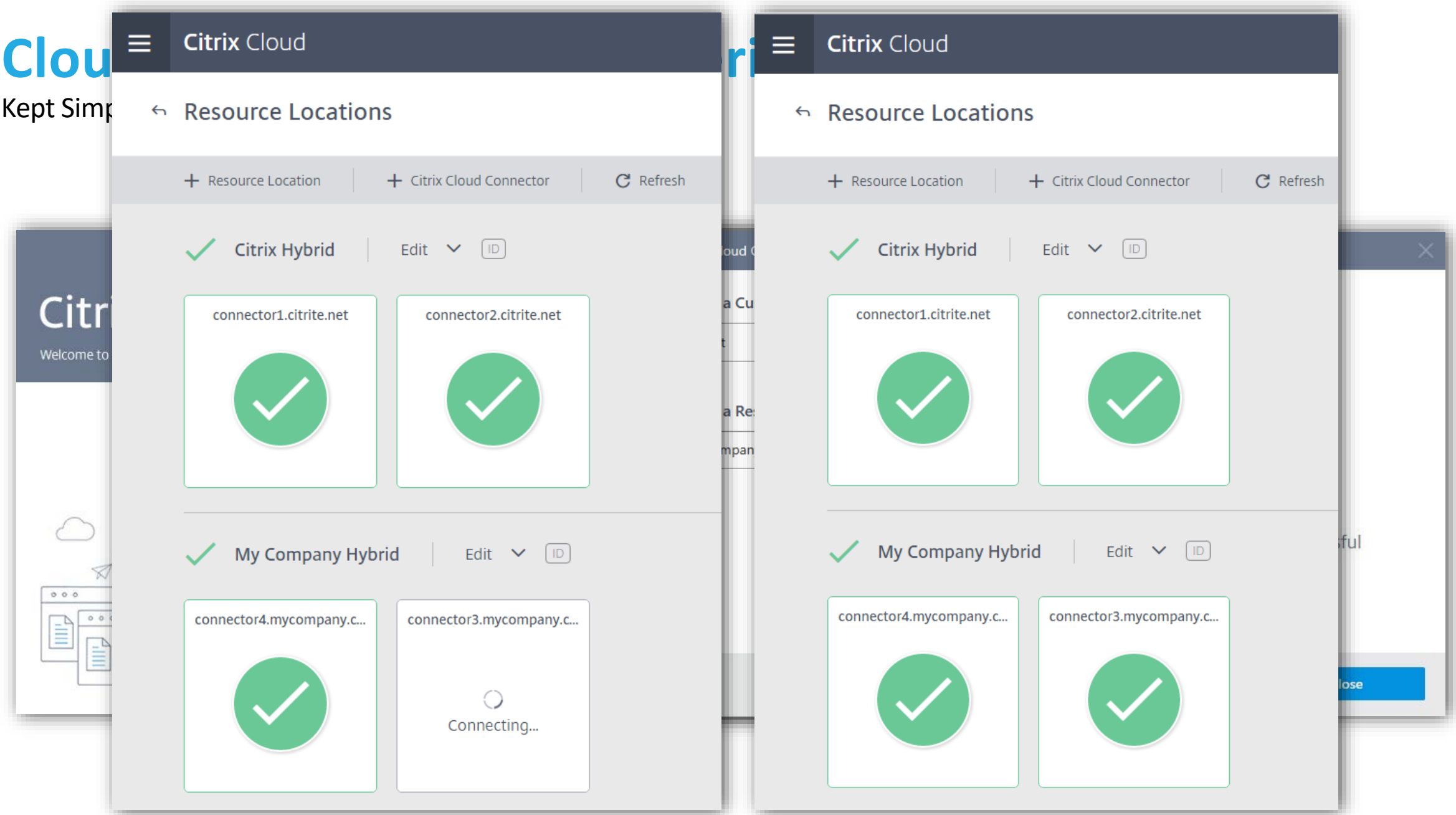
Kept Simp



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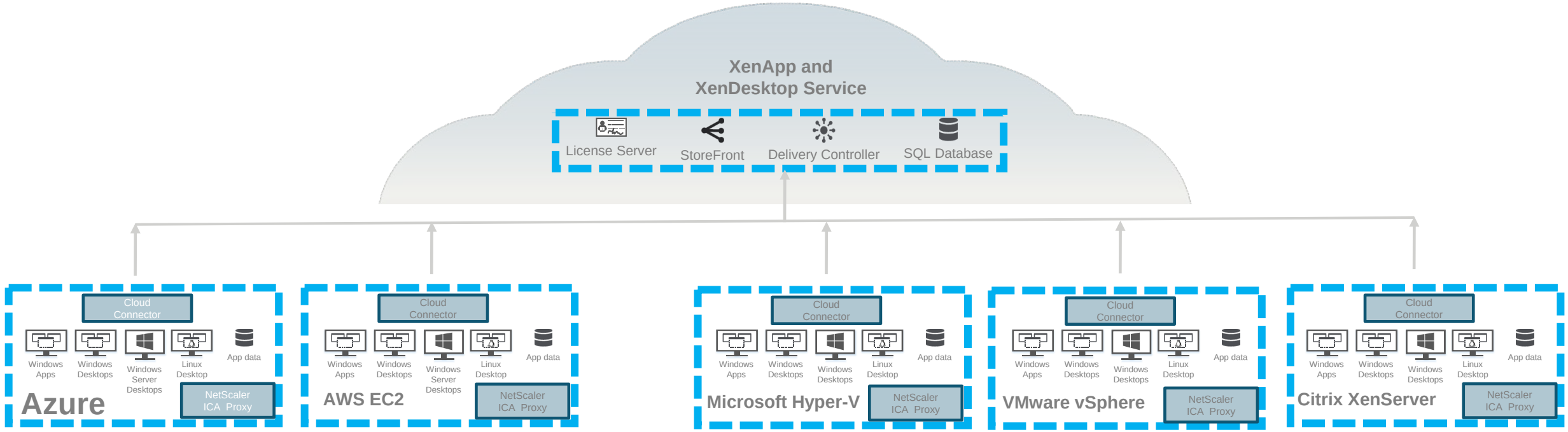
Hybrid Cloud Architecture



Multiple Public Cloud Options

Multiple Data Center Infrastructure Options

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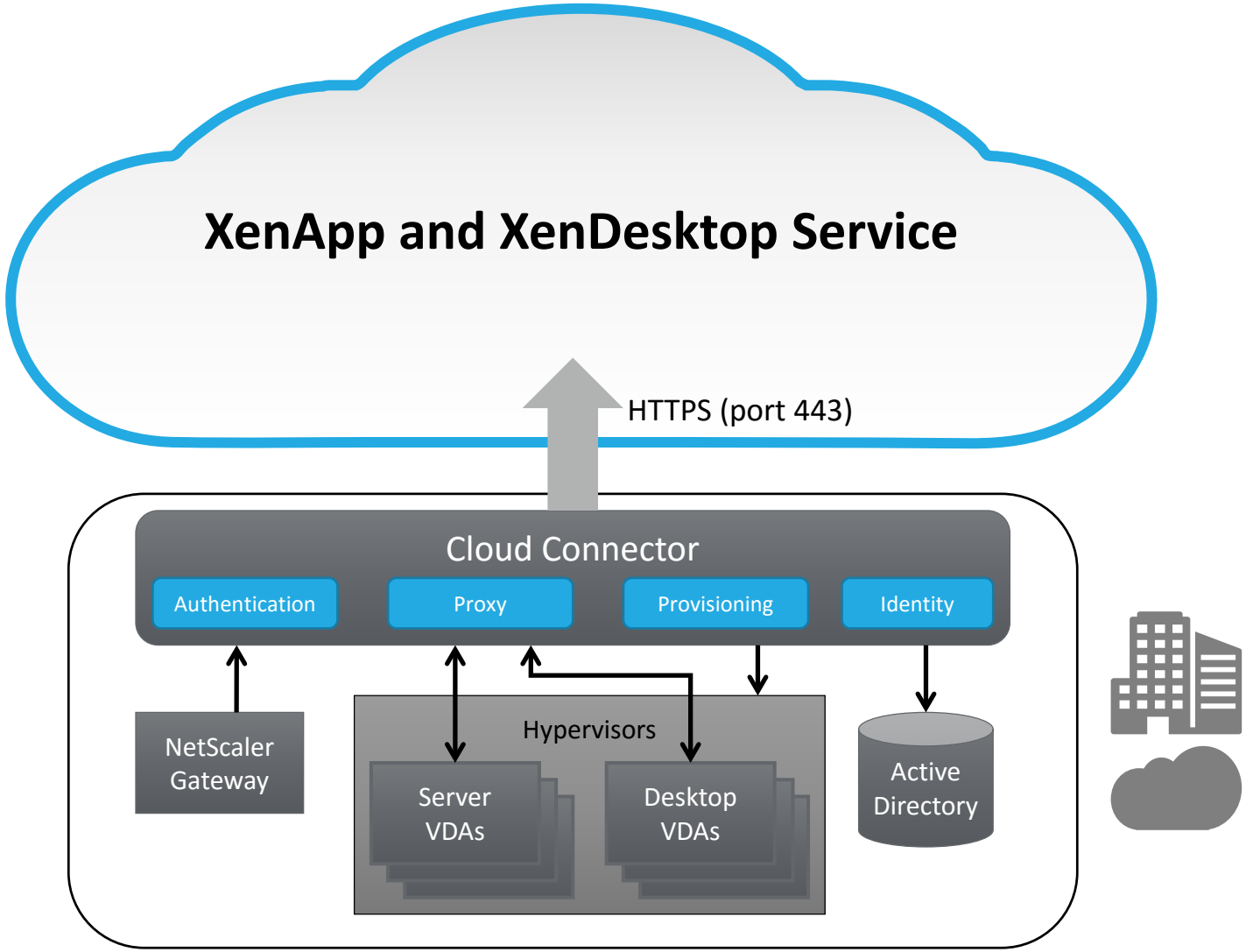
What makes it work?



Cloud Connector Services Architecture:

Provisioning for managing VM workload on hypervisors

Proxy for VDA registration and communication

Identity to support domain discovery and access

Authentication to enable user logon and app launch

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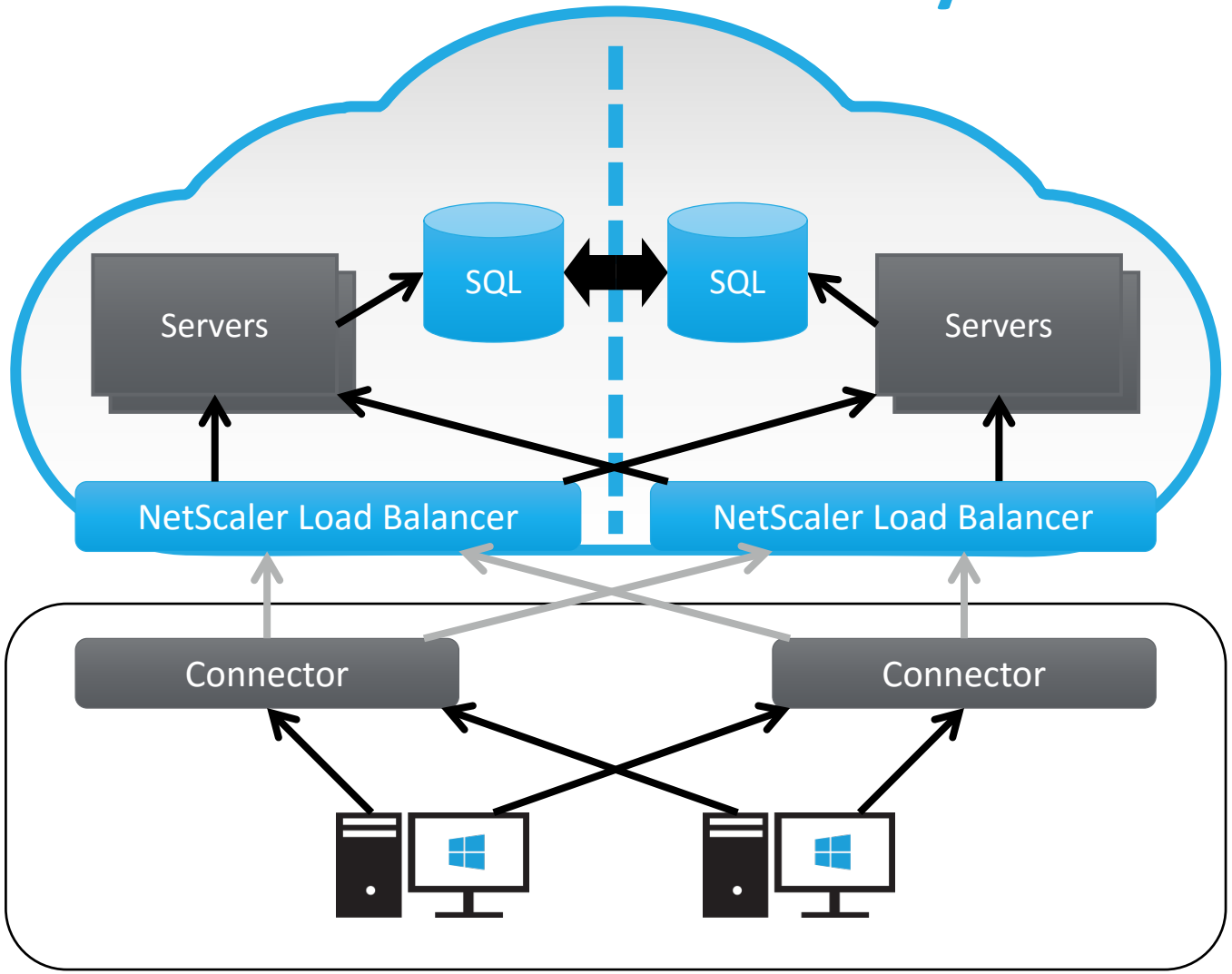
Ensure Business Continuity



Control Plane

- All components are mirrored in an active/active redundant configuration

Network Connectivity

- SLAs with ISP

Customer premises

- Connectors must be deployed in pairs for VDA failover

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XenMobile Service

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XenMobile Service

What is it

- Cloud based, comprehensive Enterprise Mobility Management (EMM) solution
- Enterprise grade productivity applications
- Simplifies user assignment/subscription

What can you do with it

- Benefits from straightforward customer onboarding and enterprise connectivity
- Locate instances close to enterprise data, apps and directory where conditions require

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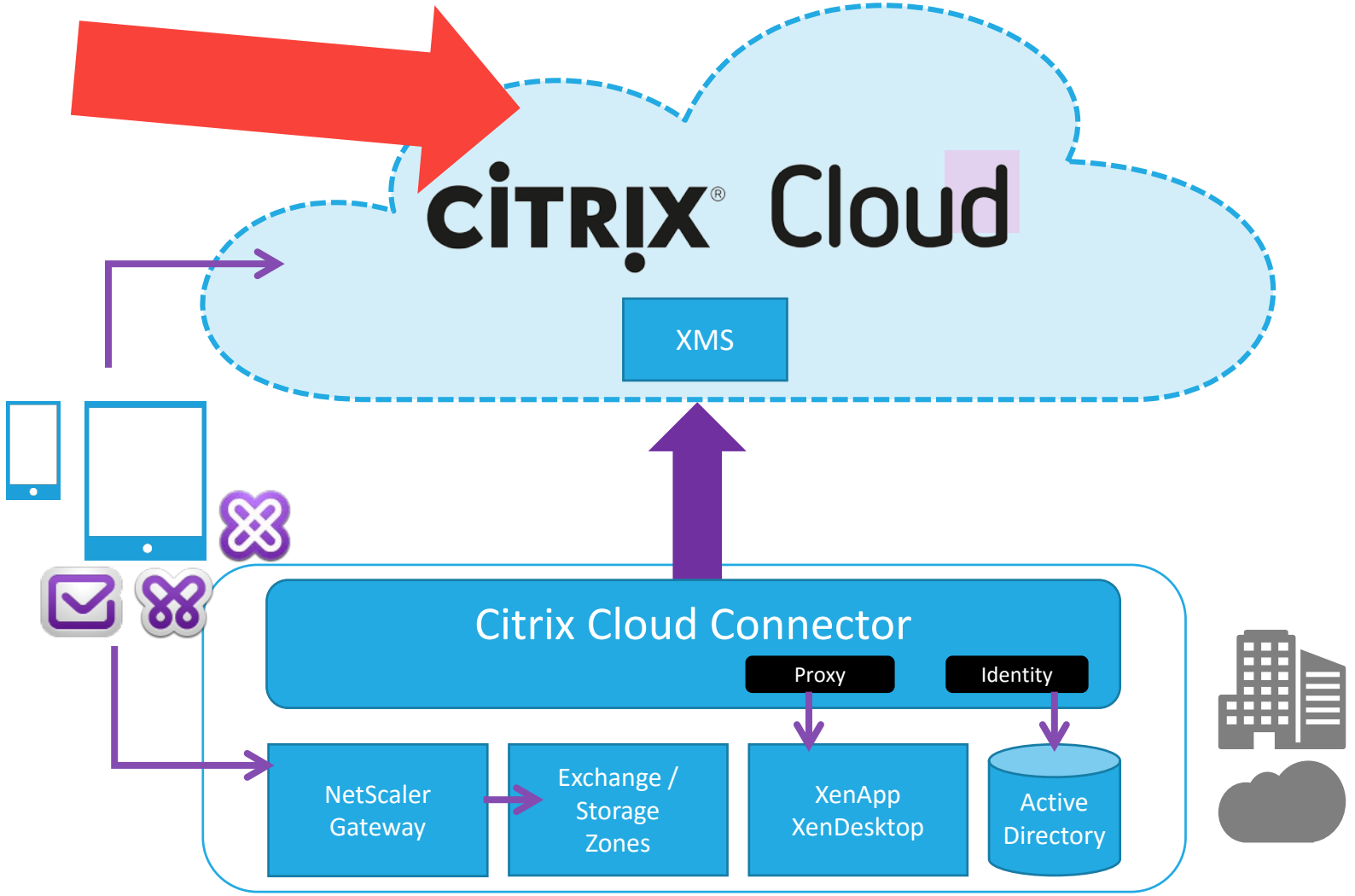
XenMobile Service

- What's Changed



Citrix Cloud *(operated by Citrix)*

Customer/Partner managed

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ShareFile Service

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ShareFile Service

- What is it
  - Cloud based secure document management solution
  - Flexible storage options integrating cloud, on-premises and existing solutions
  - Keep business information safe on any device
- What can I do with it
  - Enable migration from ad-hoc personal cloud to securely managed IT cloud
  - Create & edit content across devices
  - Integrate workflow with Microsoft Outlook
  - Support privacy and compliance with robust reporting and auditing
  - Sync files automatically or on-demand across all devices

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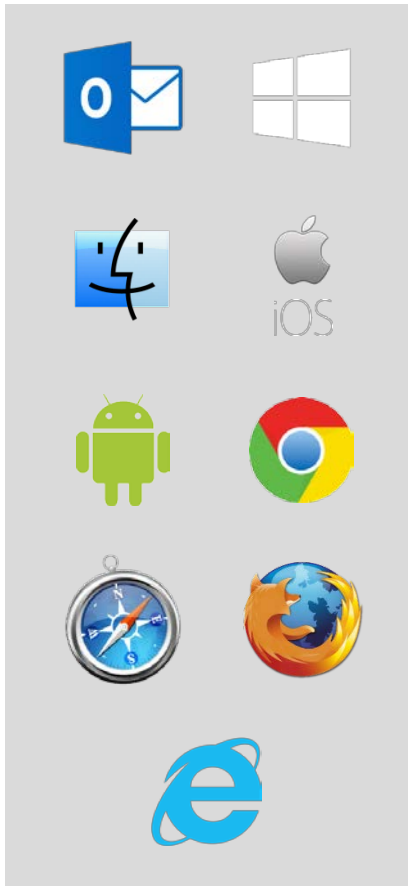
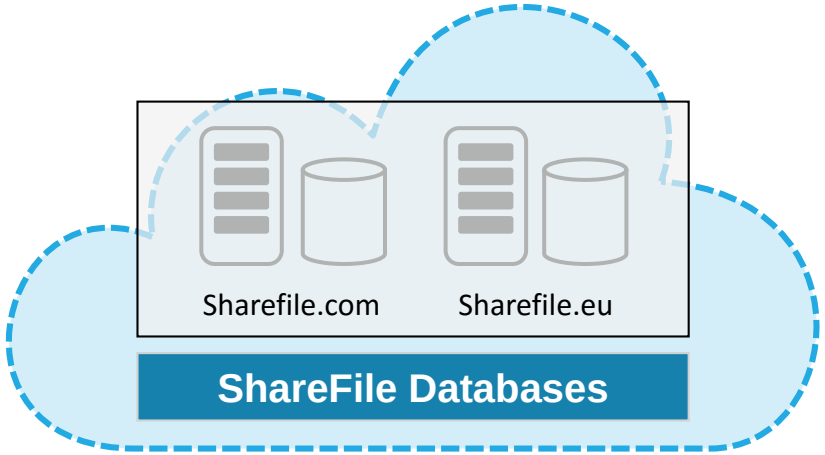
Citrix Managed StorageZones



Login

File Transfer



Application Tier

- Web Application
- Reporting

StorageZones

- Object file storage
- Various locations WW

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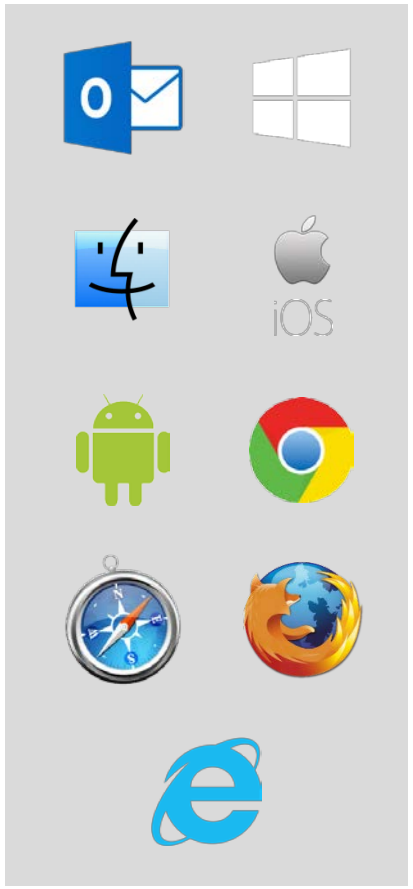
Customer Managed StorageZones



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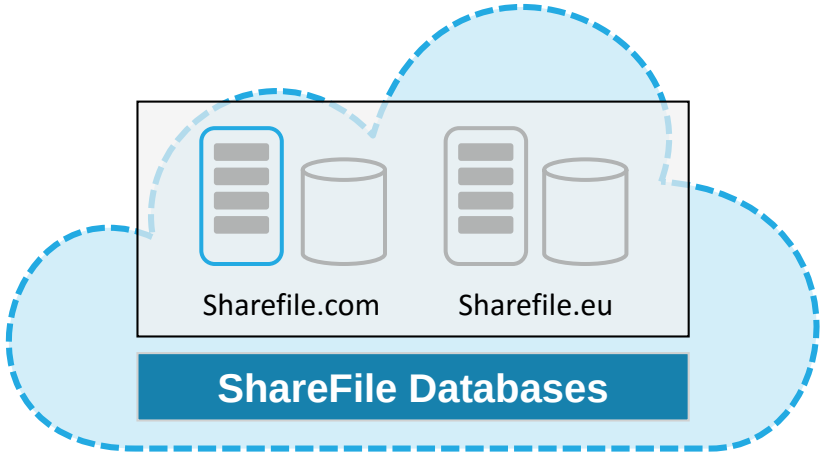

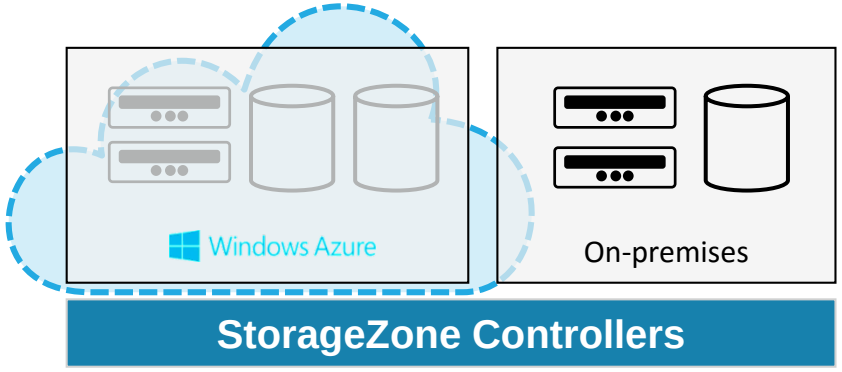

Application Tier

- Web Application
- Reporting

StorageZones

- Object file storage,
- Customer choice of location(s)

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Rolling Out Updates

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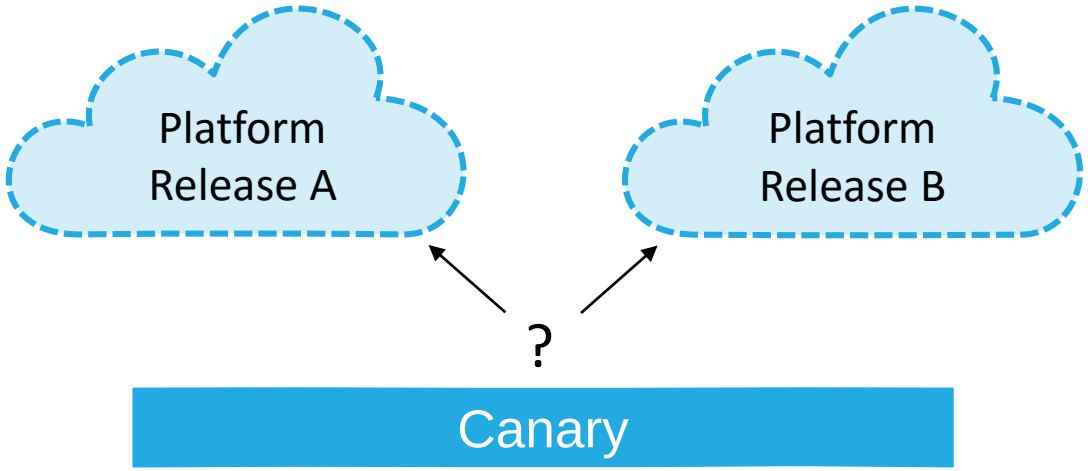
How do we roll out updates?

- Customers are migrated gradually
- Features can be hidden or shown for A/B testing
- Cloud Connectors update 1 at a time



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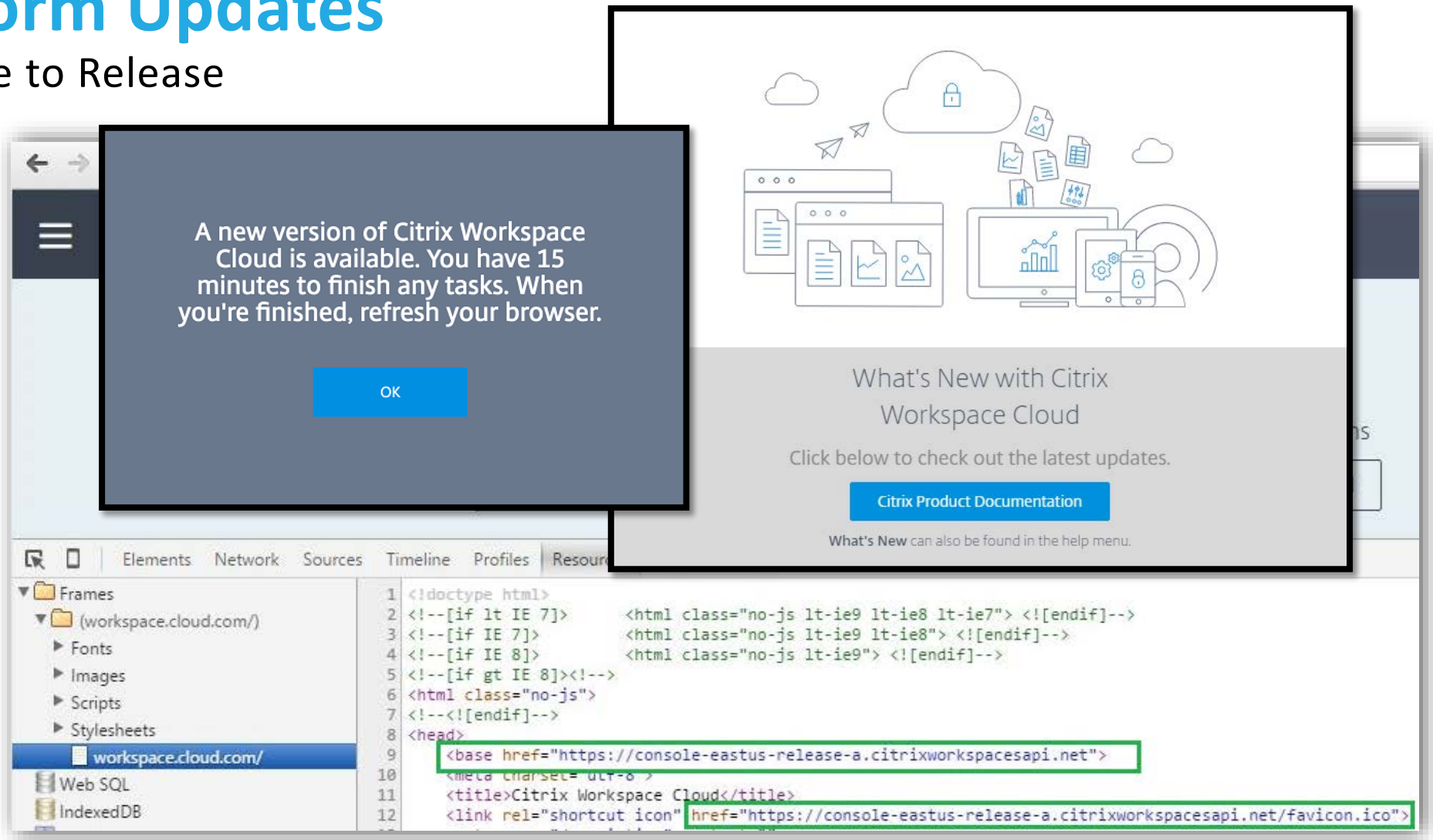
Platform Updates

- Release to Release



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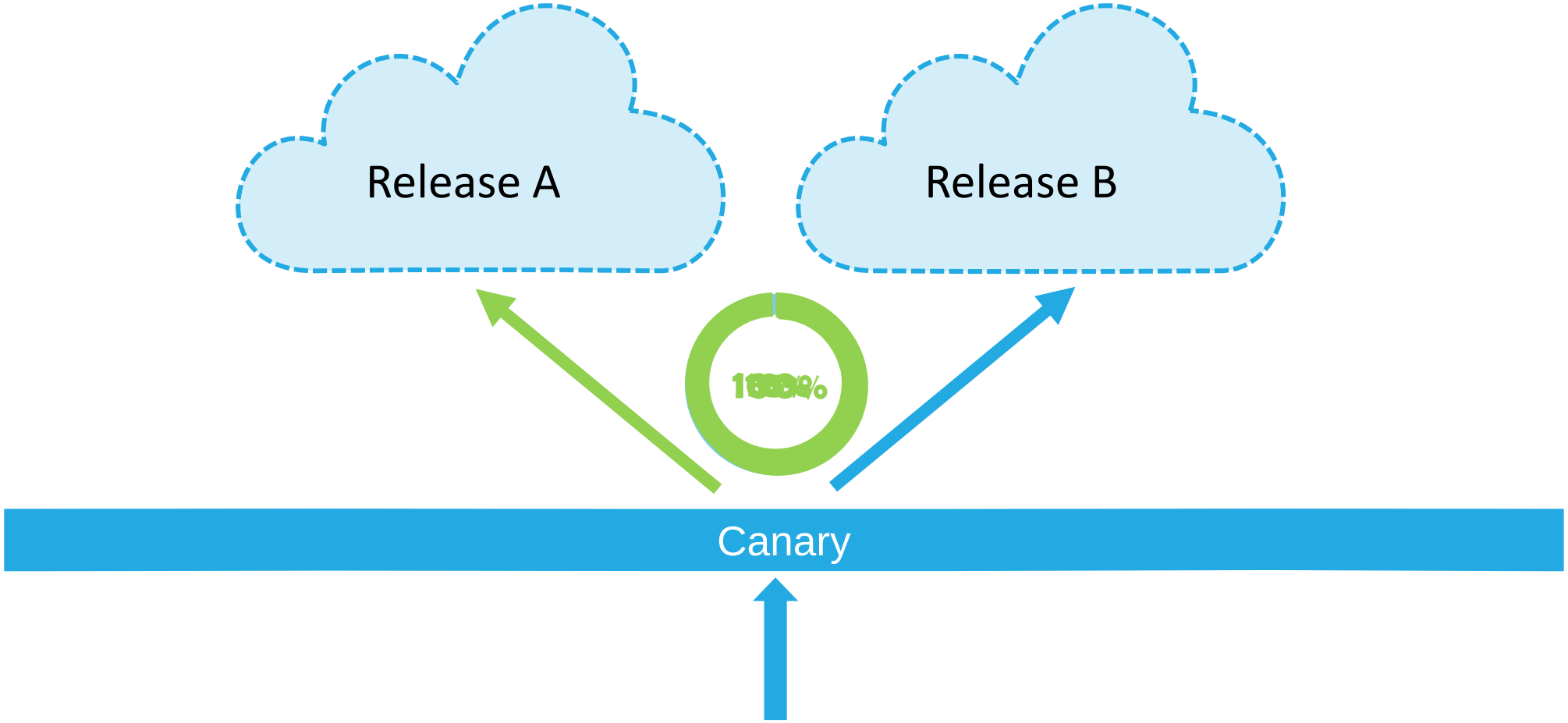
“Canary” over customers

- Percentage Based transition



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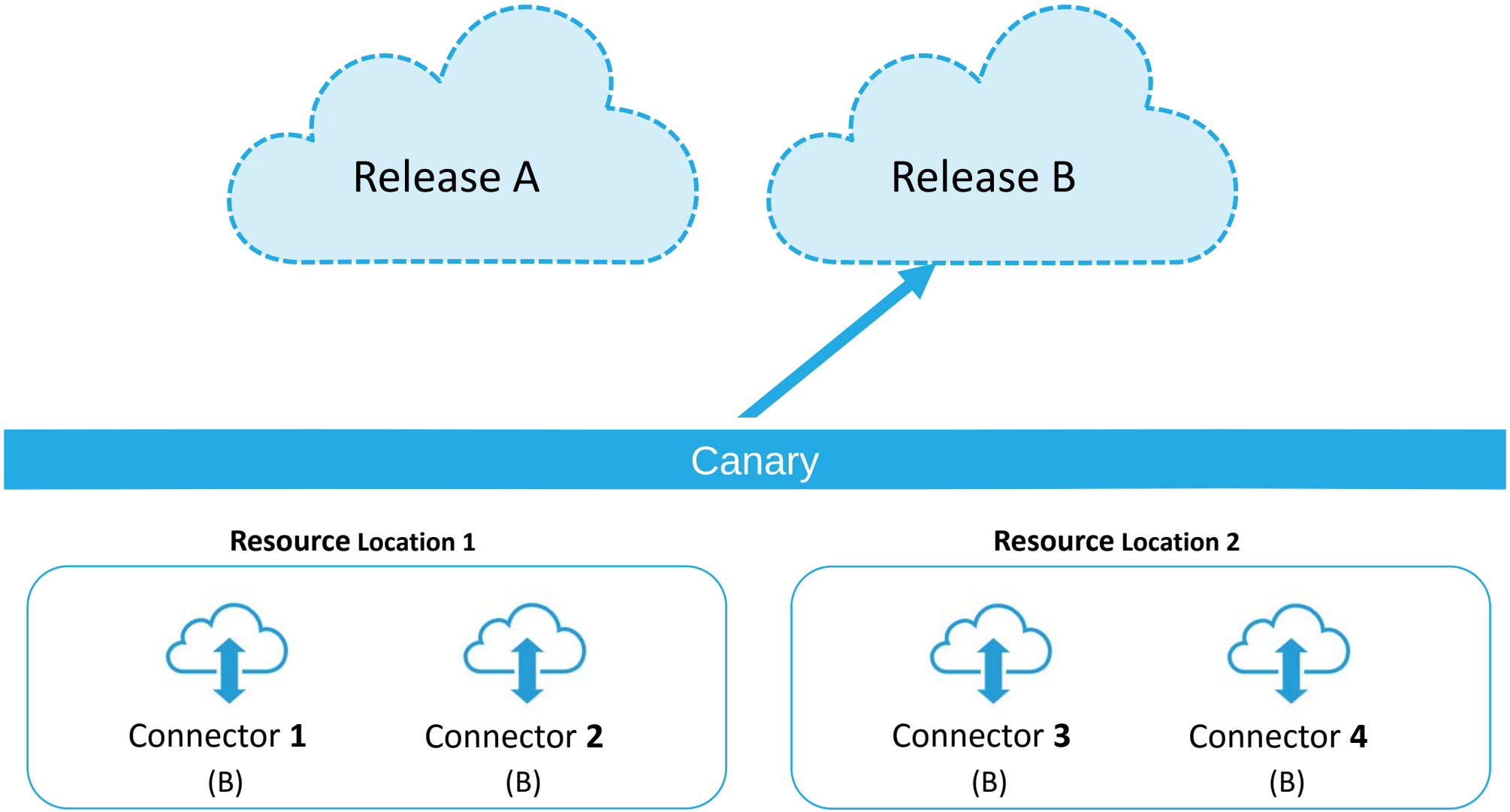
What about Connectors?

- Updated one-at-a-time



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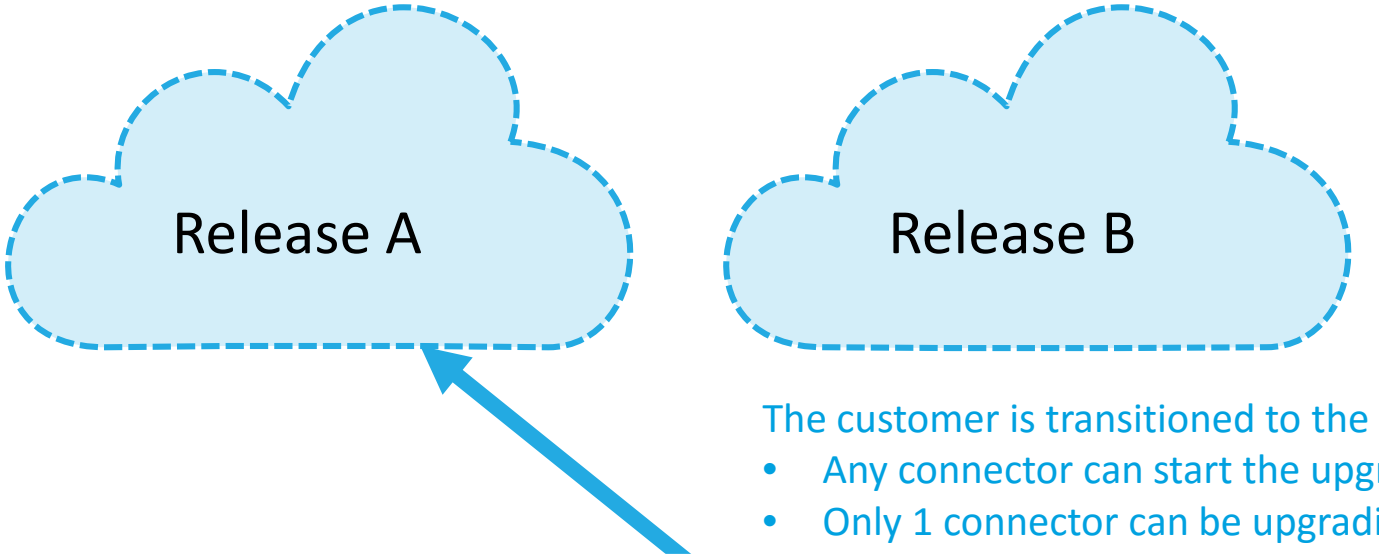
Connector Canary

- Updated one-at-a-time



The customer is transitioned to the new release

- Any connector can start the upgrade
- Only 1 connector can be upgrading at a time

Canary

Resource Location 1

Connector **1** (Upgrading to A)

Connector **2** (Upgrading to A)

Resource Location 2

Connector **3** (Upgrading to A)

Connector **4** (Upgrading to A)

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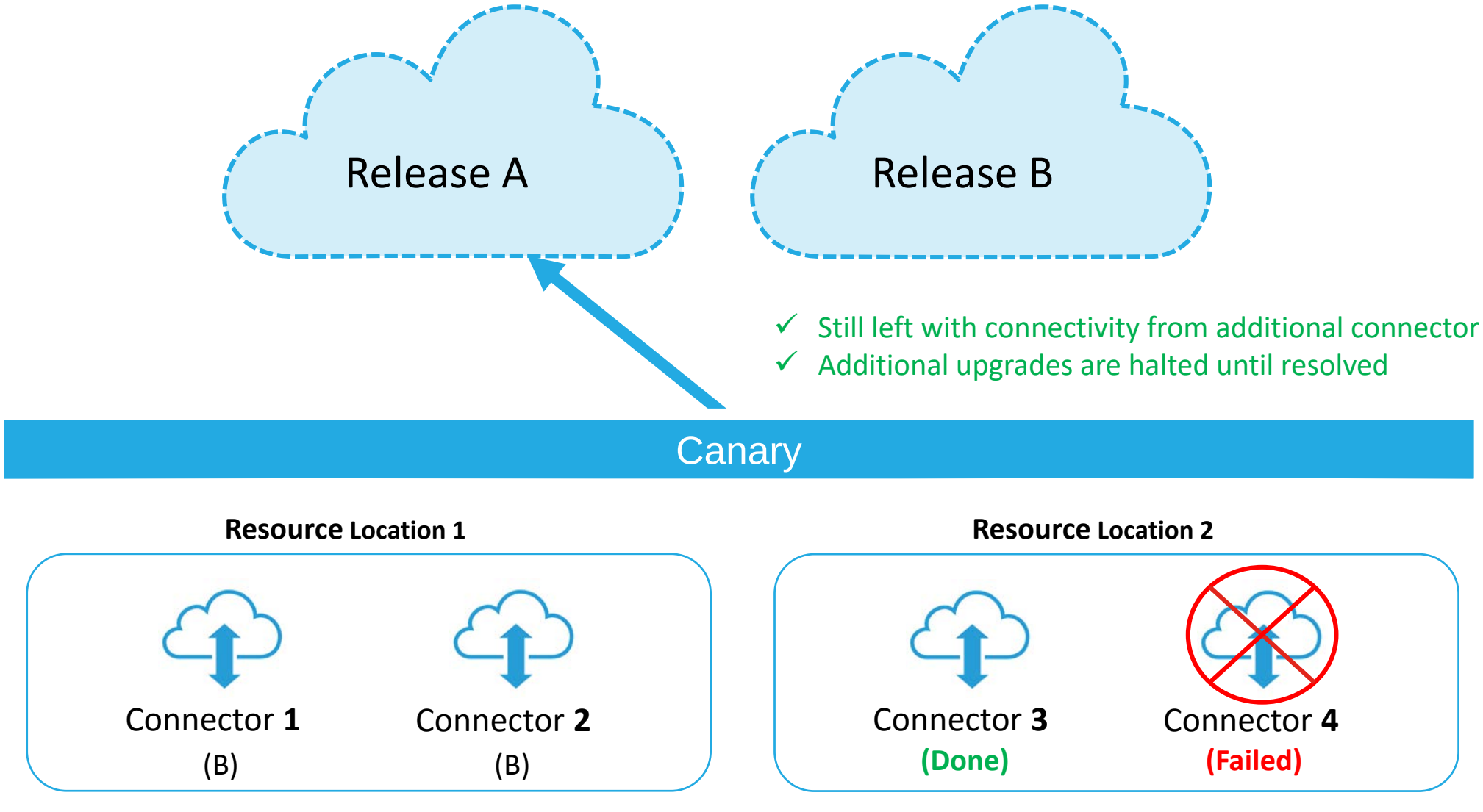
Connector Canary

- What about upgrade failure?



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XenApp & XenDesktop Deployment Models

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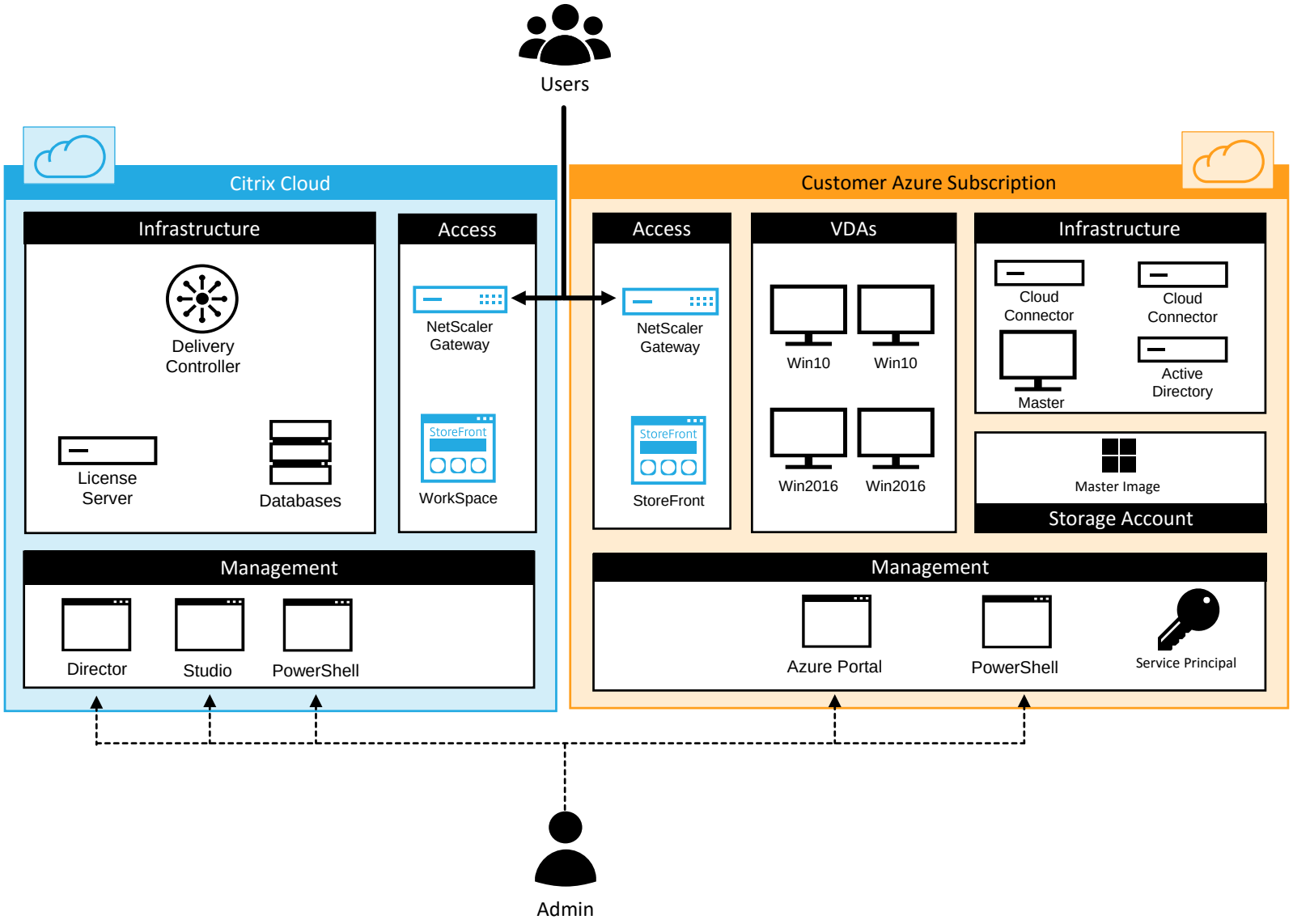
Citrix Cloud with Azure Resource Location

Control plane hosted by Citrix

Everything else is customer managed and Azure hosted



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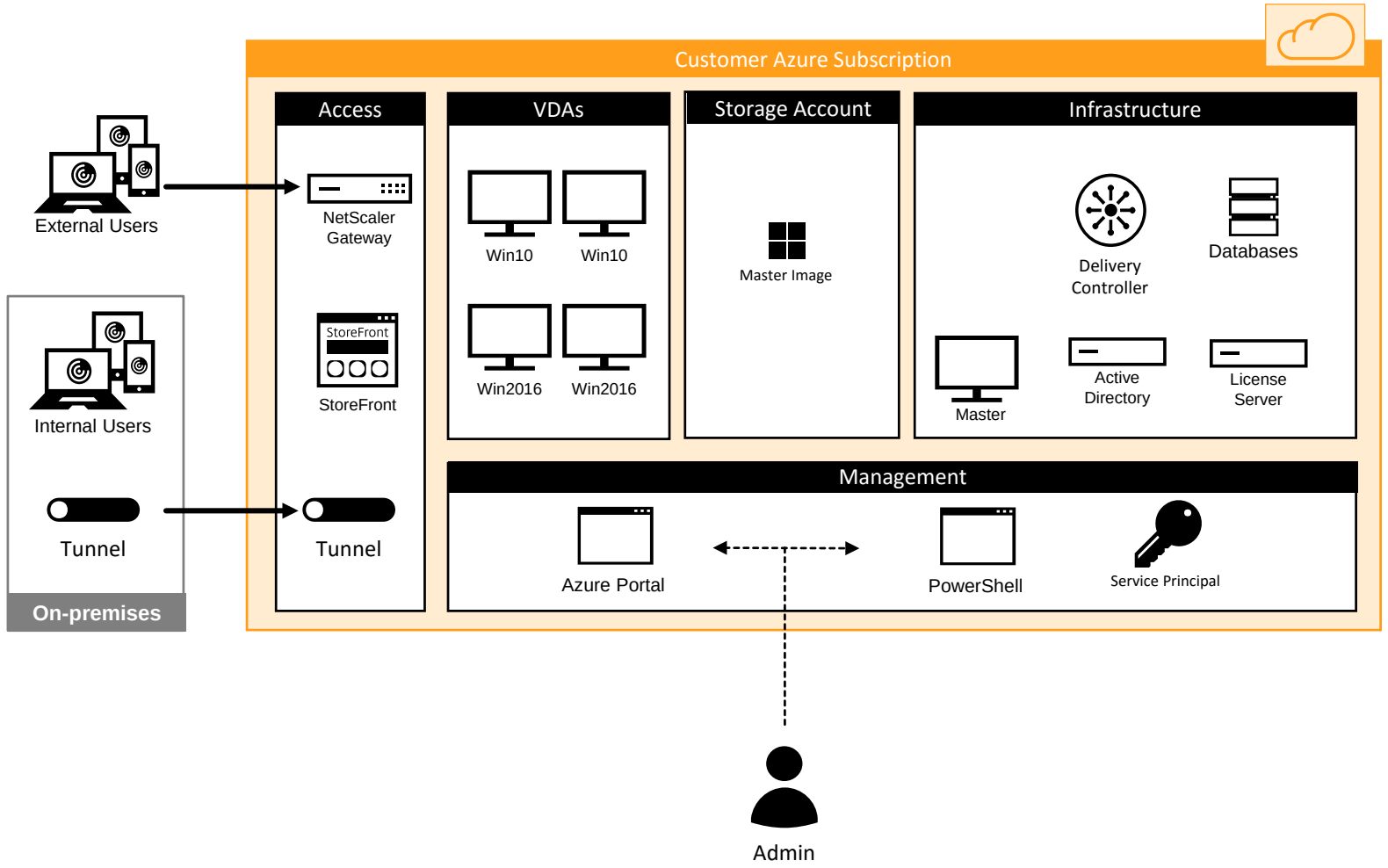
Complete Move / Forklift

All components hosted in Microsoft Azure.

Also called the forklift model.



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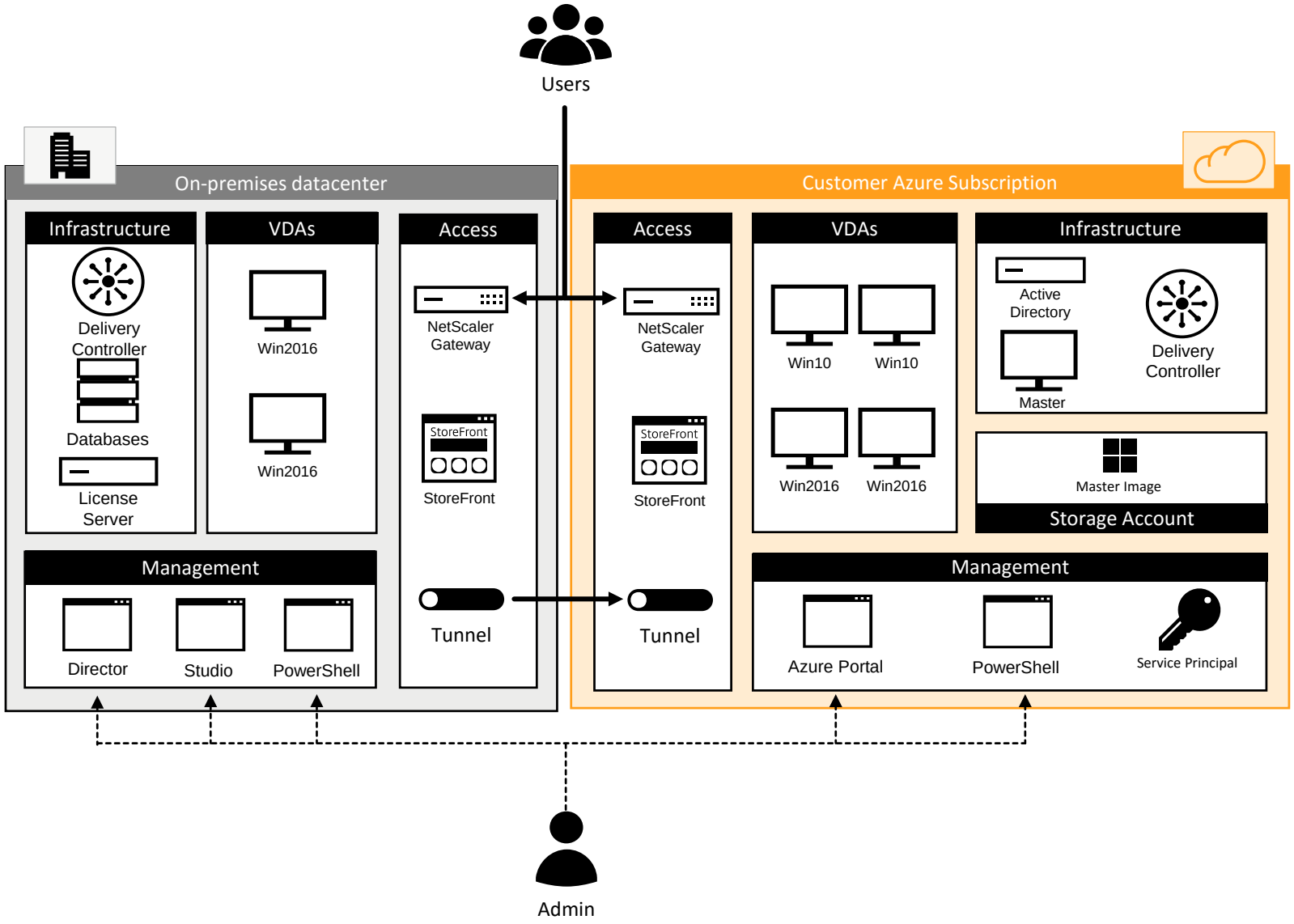
Extend Environment

One or more XD Zones in Azure

DB and primary Zone on-premises

SF and NS considerations



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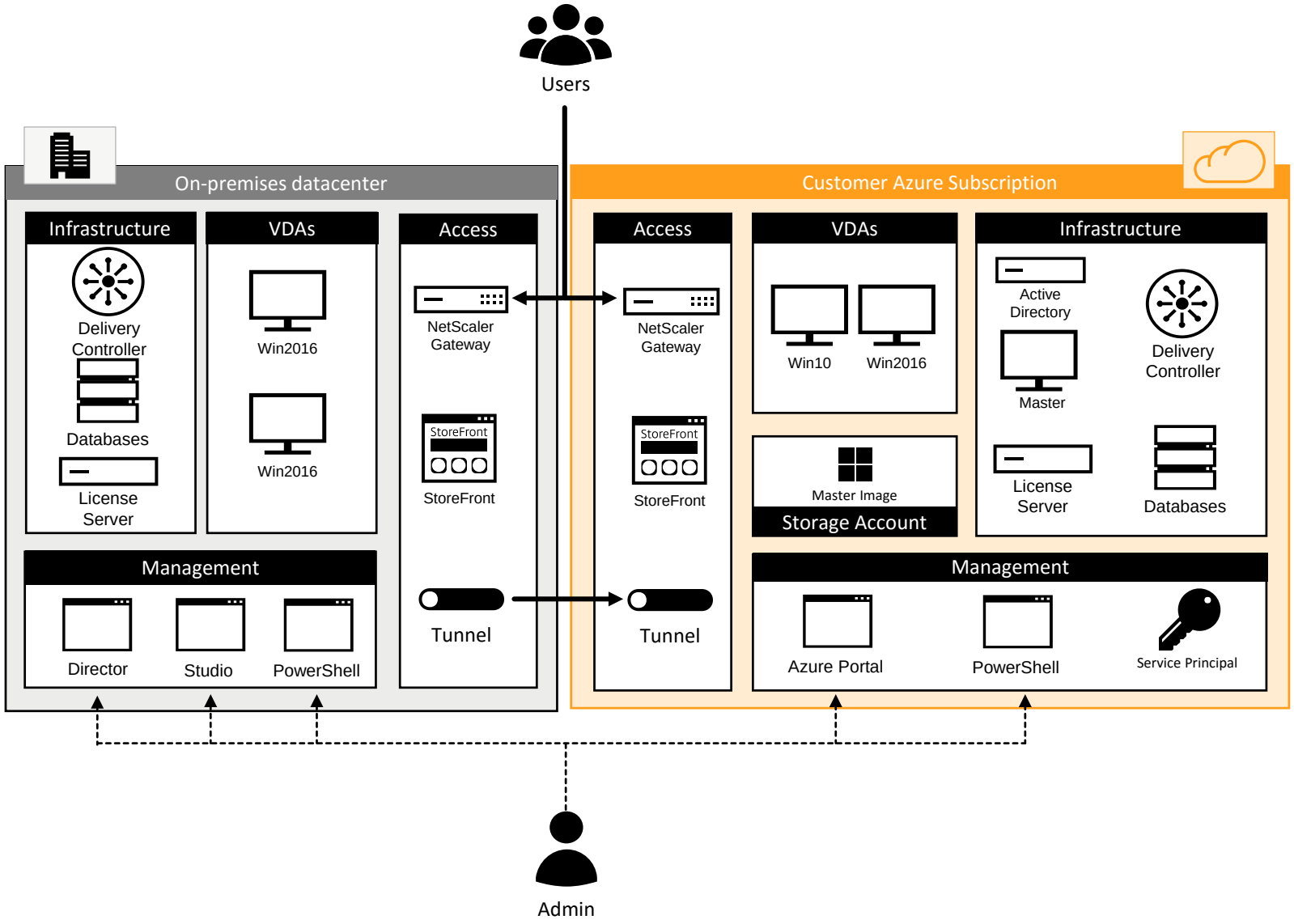
Disaster Recovery

Duplicate site

Deallocate to save money

Measure time to boot

Consider access and automation



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Cloud Connector in Azure

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Cloud Connectors in Azure

- Deploy minimum two Cloud Connectors per Azure location.
- Use Availability Sets to ensure High Availability.
- Deploy Cloud Connectors on Azure Managed Disks.
- Cloud Connectors create Computer Accounts during MCS process.
- VDAs must be able to communicate with Cloud Connectors for registration and brokering.
  - Configure NSG if placed on different network than VDAs.
- Always uninstall Cloud Connector software before deleting the VM.

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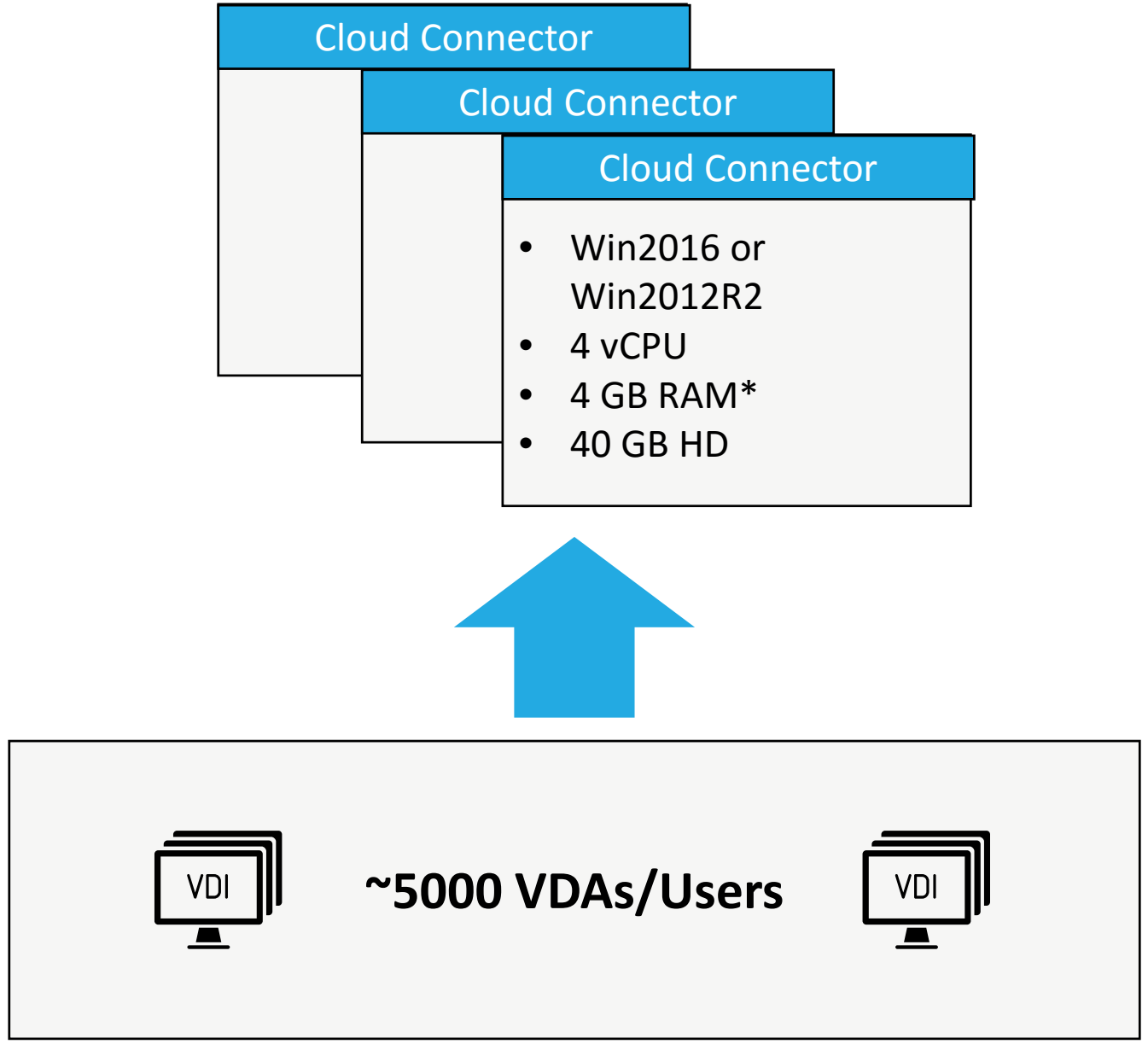
Cloud Connector VM Sizing & Requirements



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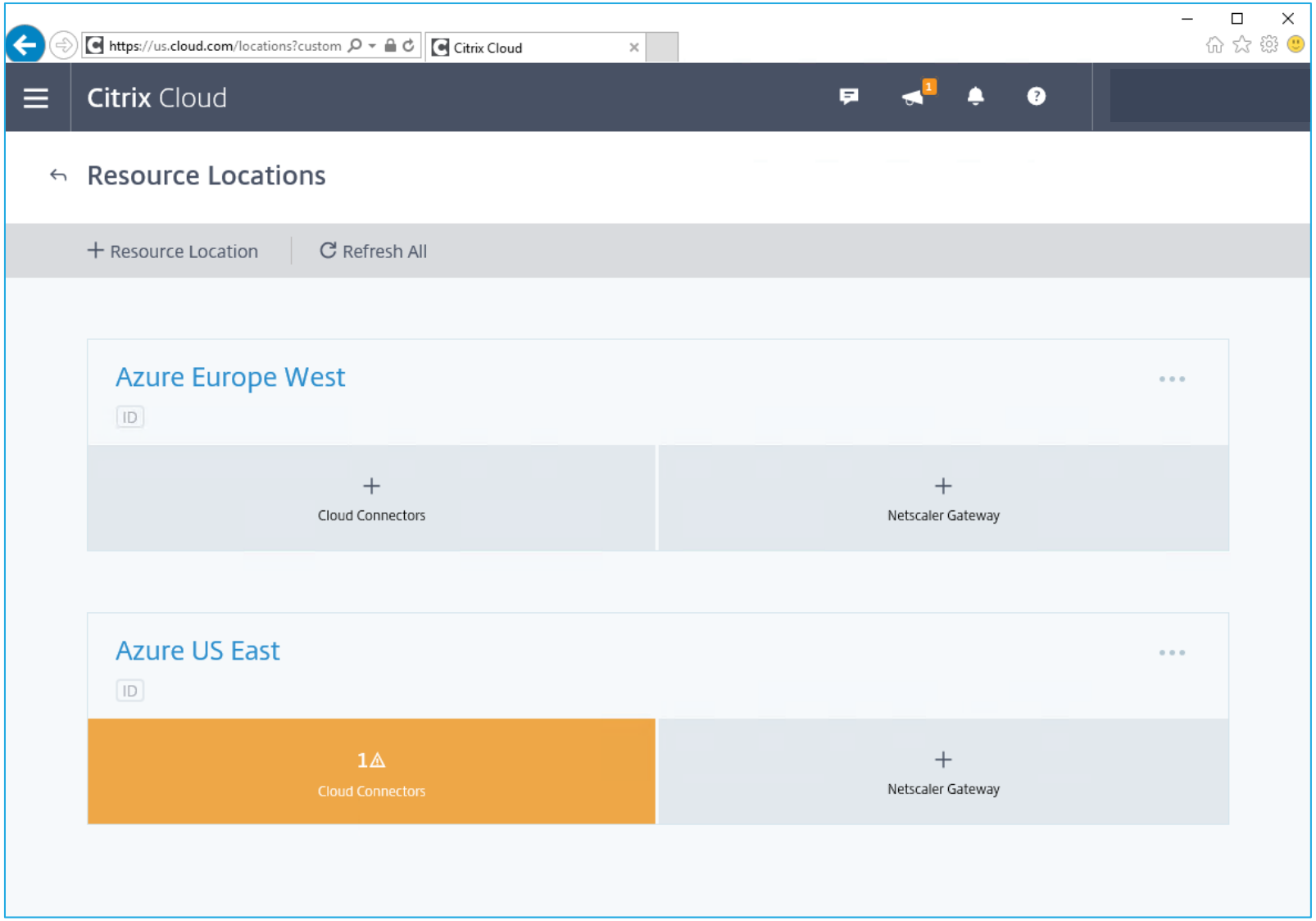
Citrix Cloud Resource Locations

Resource Locations are used to define where the resources reside from a Citrix Cloud control plane perspective.



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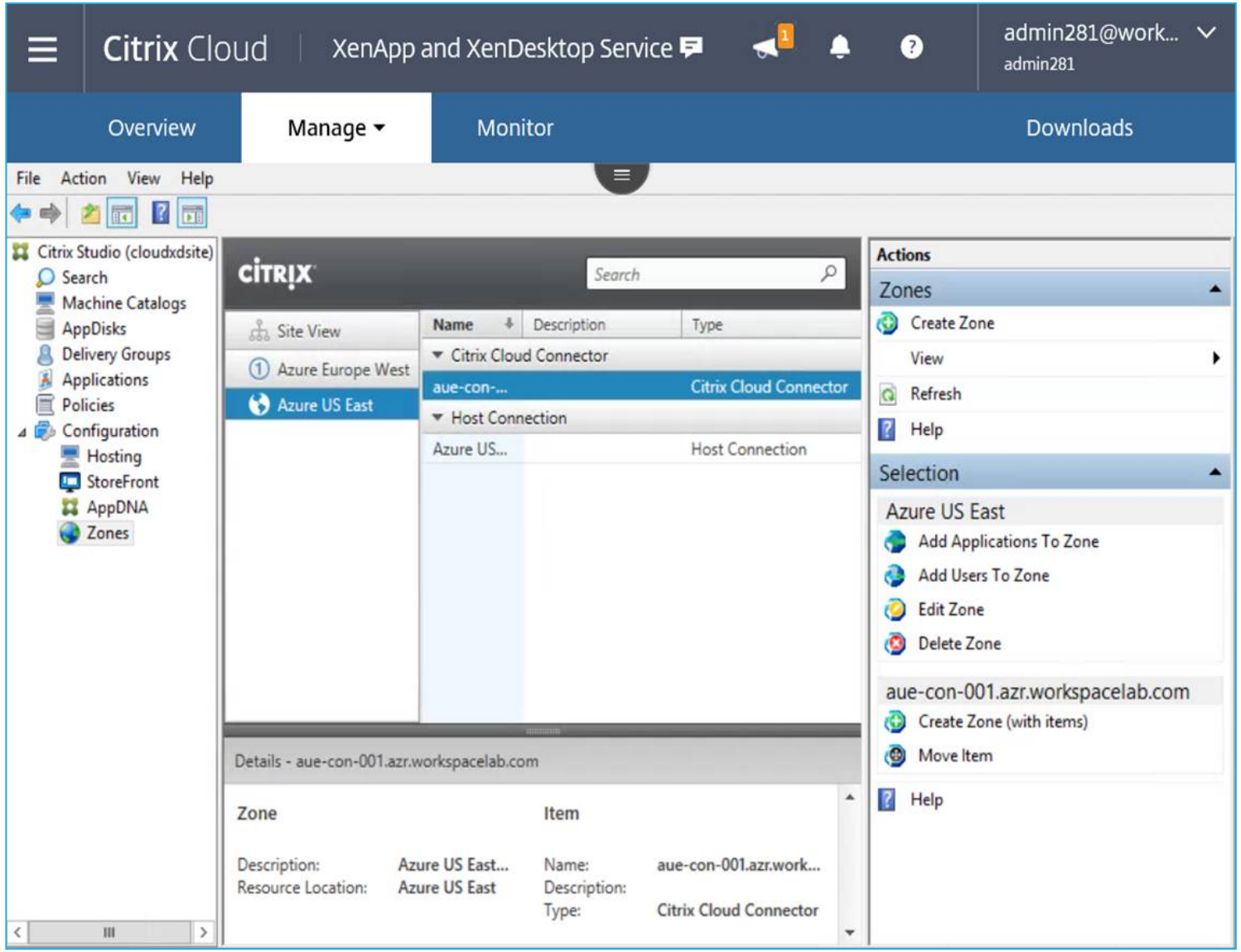
Citrix XenApp and XenDesktop Zones

The XenApp and XenDesktop Service uses Zones to identify different locations, so a Zone must be created for each Resource Location.



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Azure Review

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What are the Azure IaaS building blocks?

Compute

Virtual Machines

Windows and Linux variants in various machine sizes.

VM Scale Sets

Deploy identical VMs in a single operation & auto-scale as needed.

Service Fabric

A platform for reliable, hyperscale, microservice-based applications.

Storage

Storage Account

Container for Blobs, Files, Queues and Tables.

Storage Blob

Repository for VHDs and files exposed via web protocols.

Azure Files

Fully managed file shares that use the standard SMB 3.0 protocol.

Network

Virtual Network

Define DNS, IP address ranges, DHCP.

Direct Connectivity

ExpressRoute and VPN options for connecting on-premise to Azure.

RESOURCE GROUP

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Compute

Type	Sizes	Description
General purpose	DSv2, Dv2, DS, D, Av2, A0-7	Balanced CPU-to-memory ratio. Ideal for testing and development, small to medium databases, and low to medium traffic web servers.
Compute optimized	Fs, F	High CPU-to-memory ratio. Good for medium traffic web servers, network appliances, batch processes, and application servers.
Memory optimized	GS, G, DSv2, DS, Dv2, D	High memory-to-core ratio. Great for relational database servers, medium to large caches, and in-memory analytics.
Storage optimized	Ls	High disk throughput and IO. Ideal for Big Data, SQL, and NoSQL databases.
GPU	NV, NC	Specialized virtual machines targeted for heavy graphic rendering and video editing. Available with single or multiple GPUs.
High performance compute	H, A8-11	Our fastest and most powerful CPU virtual machines with optional high-throughput network interfaces (RDMA).

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Storage

- Unmanaged Disks
  - Standard storage accounts:
    - Blob storage (used for storing Azure VM disks)
    - Table storage
    - Queue storage
    - File storage
  - Premium storage accounts:
    - High-performance low-latency blob storage
    - Azure VM Disks only

- Azure Managed Disks
  - Standard and Premium disks
  - Azure manages the disk placement and replication.
  - No Storage Accounts limitations.
  - Supported as tech preview in Citrix Cloud.

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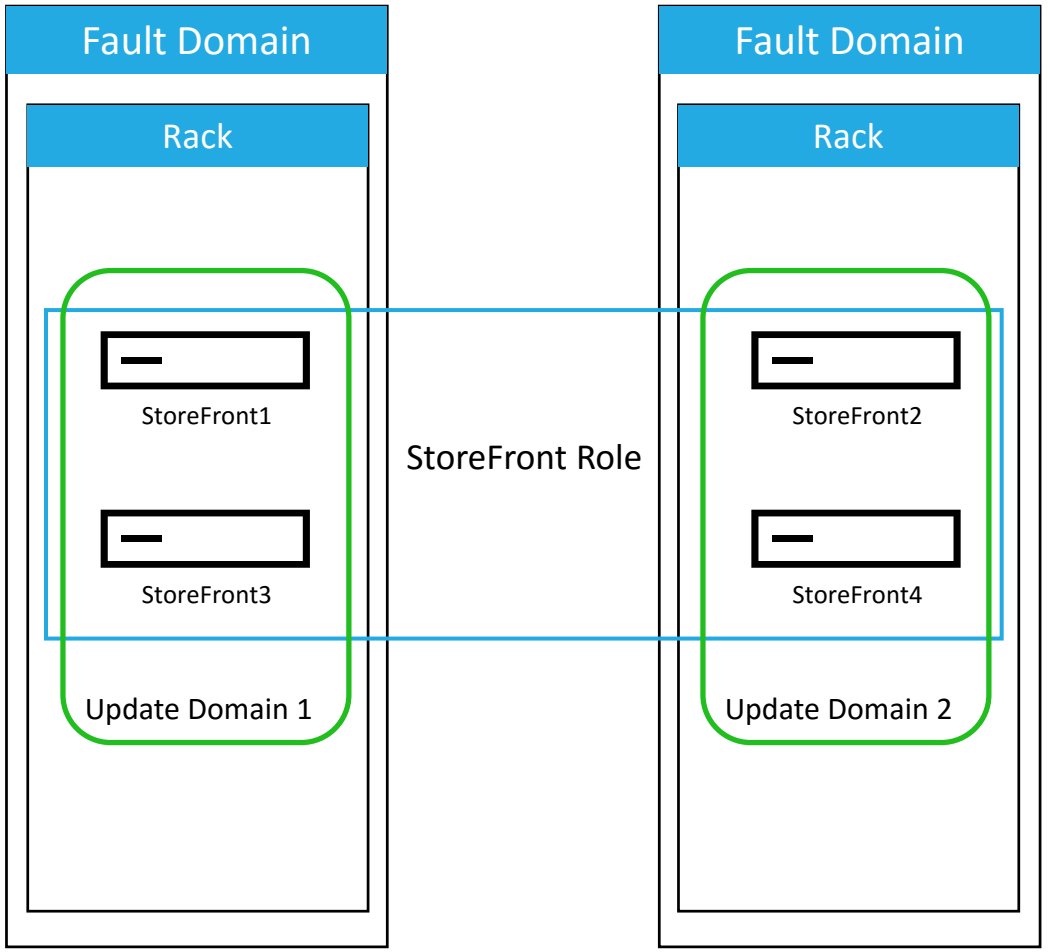
Availability Sets

- Use availability sets to ensure that VMs running the same service are placed on different hardware clusters.
- Each hardware cluster is divided in to multiple update domains and fault domains.
  - Fault Domains protect you by spreading the workload between different racks.
  - Update Domains protect you in terms of planned maintenance, Microsoft will never plan maintenance on two update domains at the same time.



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Network Security Groups

- A Network Security Group (NSG) contains a list of security rules that allow or deny network traffic to resources connected to Azure Virtual Networks.
- Can be associated with:
  - Subnets
  - Individual network interfaces (ARM only)
  - VMs (Classic Portal only)

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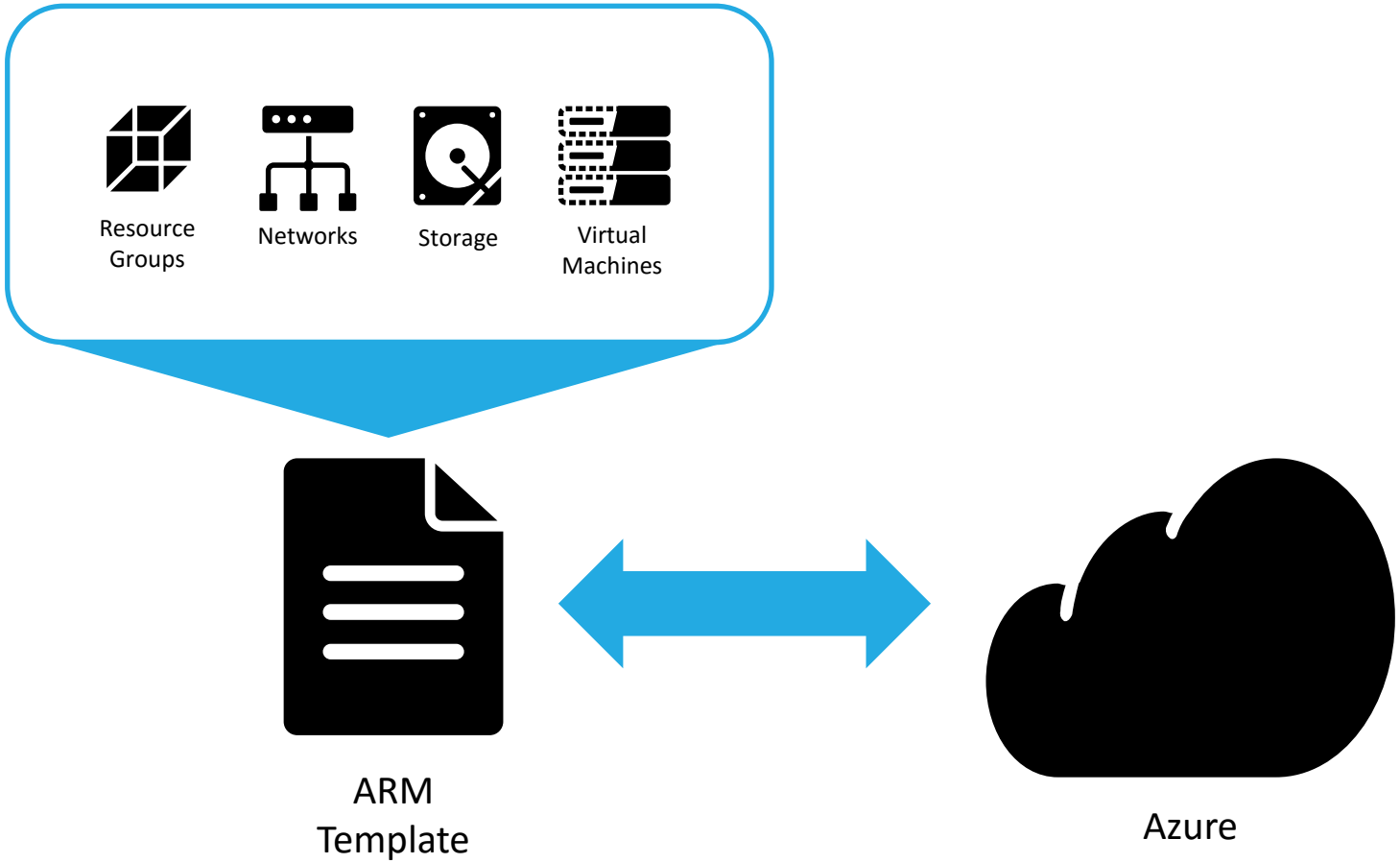
Templates



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