App Orchestration 2.0

Key Concepts & Terms

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Contents

Document Version

	Date	Comments
1.4	December 17, 2013	Architecture diagram replaced with link
1.3	November 25, 2013	App Orchestration database server, multi- and single-user catalogs added
1.2	November 19, 2013	Aggregation, App Orchestration configuration server, App Orchestration web management console, capacity, Delivery Controller, Delivery Group, orchestration service account, Session Machine, Session Machine Catalog, and StoreFront Server Group added
1.1	August 5, 2013	Datacenter updated
1.0	July 30, 2013	First version

Key Concepts

For an overview of App Orchestration architecture, see the [Architecture Diagram](#).

Tenancy & Offerings

XenDesktop integrates the cloud service provider concept of tenancy and uses App Orchestration to support multi-tenant environments. *Tenants* consume apps and desktops you provide through XenDesktop or XenApp. All, part, or none of the environment can be in the cloud to achieve these benefits.

Tenants *subscribe* to your *offerings* so they can make those offerings available to their users. Any business unit or consumer of your services can be a tenant. You can design offerings for consumption by multiple tenants or a single tenant.

Offerings are containers that help you define a set of apps, desktops, and resources. They are designed for the tenant's users to select as needed from an application storefront. Offerings can contain a single item, multiple items, or even other offerings. For example, one offering might provide a starter kit for new employees, containing a desktop preconfigured with email, an editing app, a spreadsheet app, and a network storage location. Another offering might provide the same spreadsheet app by itself.

Terms used with this concept:

- **Tenant –** An entity that contracts services from a service provider organization, such as hosted desktops & apps and cloud infrastructure. A tenant is the customer of the service provider.
- **Offering –** A definition of a specific type of service that a service provider provides to tenants. Typically, an offering is a hosted app or desktop.
- **Subscription –** An association between an offering, a group of users (belonging to a tenant), and a collection of machines that host a specific desktop or app.

Multi-Datacenter Deployments

Multi-datacenter deployments are used to support distributed geographic regions and for failover.

Terms used with this concept:

- **Datacenter** – A datacenter is a logical container for Delivery Controllers, Session Machines, Delivery Sites, StoreFront Server Groups, and compute resources. Use a datacenter to represent resources that have a low latency, high bandwidth network connection. Typically, a datacenter contains the resources in the same geographic location, and multiple datacenters are connected by a WAN.

- **Datacenter affinity** – The process of connecting users to datacenters through their membership in user groups.

- **Subscription group** – A set of Active Directory user groups that are subscribed to an offering.

Tenant Isolation

When you create offerings, you choose a level of isolation for tenants who subscribe to the app or desktop. The isolation level refers to whether the Delivery Controllers and Session Machines used for the offering are shared with other tenants or allocated only to the subscribing tenant.

Terms used with this concept:

- **Delivery Group** – A container for a machine or machines used to deliver applications and desktops to a specific group of users. A Delivery Group is associated with a specific Delivery Site. It can be shared among tenants or dedicated to a specific tenant, according to the isolation level of the subscriptions it is hosting.

- **Management Network** – A group of network components that communicate to manage your deployment, including Delivery Controllers, Delivery Sites, Session Machines, and virtualization infrastructure.

- **Private Delivery Group** –A Delivery Group containing Session Machines that are allocated only to the subscribing tenant. The Delivery Controllers in this group are shared with other tenants. The shared Delivery Sites are connected to the Shared Controller Management Network, while the private Session Machines are connected to the tenant's Private Management Network. When the tenant's users access the service, they use the same Delivery Site as other tenants but no other tenants use the subscribing tenant's Session Machines.

- **Private Delivery Site** – A completely isolated Delivery Site dedicated to a single tenant exclusively. At this isolation level, hosted applications and desktops run on machines accessible only to a single tenant's users and brokered by a dedicated private Delivery Site. The Session Machines and Delivery Sites are connected to the tenant's Private Management Network. This configuration is appropriate for tenants who require the highest level of isolation within the datacenter.

- **Private Management Network** – A private management network is dedicated to a single tenant, allowing the tenant to have the highest level of isolation and security for the Session Machines and delivery sites of the tenant. It contains private Session Machines and private Delivery Sites and private StoreFront server groups.

- **Shared Delivery Group** – A Delivery Group containing Delivery Controllers and Session Machines that are shared among multiple tenants. The shared Delivery Sites are connected to the Shared Controller Management Network, and the shared Session Machines are connected to the Shared Delivery Group Network. This configuration is appropriate for tenants who do not require any form of isolation within the datacenter.

- **Shared StoreFront Site** – A shared StoreFront server group hosting StoreFront Sites that are shared by multiple tenants. The StoreFront server group is connected to the Shared Controller Management Network, and users from multiple tenants log on to StoreFront using the same URL.

- **Private StoreFront Site** – The StoreFront server group on the Shared Controller Management Network is shared by multiple tenants, but hosts private StoreFront Sites that are each allocated to a single tenant. Each tenant's users log on to a private StoreFront Site using a tenant-specific URL.

- **Private StoreFront Server Groups** – A completely isolated StoreFront server group dedicated exclusively to a single tenant. The tenant's users log on to StoreFront using a tenant-specific URL that points to the tenant's private StoreFront server group on the tenant's Private Management Network

Resource Domains

Terms used with this concept:

- **Private Resource Domain** – A private resource domain contains machines hosting resources for a single tenant.

- **Shared Resource Domain** – A shared resource domain contains machines that host resources for multiple tenants. The default resource domain in App Orchestration configuration is a shared resource domain. If a domain is assigned to a single tenant, it becomes a private resource domain.

Additional Terms

- **Aggregation** – Aggregation improves and simplifies the user experience by presenting a single icon in the user's StoreFront site for a hosted app that in reality has multiple instances available in the store, from multiple sites. Instead of confusing the user by presenting all instances of the app individually, the display is aggregated into a single icon.

- **App Orchestration** – App Orchestration provides unified management of Citrix application and desktop delivery technologies in a multi-tenant environment, using multiple datacenters across multiple domains.

- **App Orchestration configuration server** – The App Orchestration configuration server hosts the App Orchestration engine and its web-based management console. Machine Creation Services (MCS) and an agent reside on the configuration server for creating and managing virtual machines (VMs) in the virtualization infrastructure.

- **App Orchestration database server** – a server hosting the App Orchestration configuration and logging databases. In App Orchestration there a configuration database corresponds to each service deployment and the names of the database and service deployment must match. If during App

Orchestration configuration you provide a service deployment name that does not exist on the database server, a configuration database of the same name is automatically created.

- **App Orchestration web management console** – A web console used to manage App Orchestration activities. You can use the console to monitor the workflows involved with deployment actions, such as creating Delivery Sites or adding Session Machines.

- **Capacity** – In App Orchestration, capacity refers to the number of Session Machines that are allocated to offerings and the tenants who access them. You can adjust capacity as needed to host more or fewer users or offerings.

- **Citrix Product Depot** – The Citrix Product Depot is a file share containing the installation software for your deployment. The depot provides a location for utilities and scripts to reference the software as needed.

- **Compute resources** – In App Orchestration, compute resources provide the virtualization infrastructure used to prepare Session Machines automatically when needed (integrated provisioning). For example, compute resources include Citrix XenServer, Microsoft System Center Virtual Machine Manager, Microsoft Hyper-V or VMware VSphere.

- **Delivery Controller** – A server-side component that is responsible for distributing desktops and applications to users, managing user access through policies, power managing desktops, and reboot cycles for servers.

- **Delivery Group** – A container for a machine or machines used to deliver applications and desktops to a specific group of users. A Delivery Group is associated with a specific Delivery Site. It can be shared among tenants or dedicated to a specific tenant, according to the isolation level of the subscriptions it is hosting.

- **Delivery Site** – Delivery sites provision desktops and applications to users through App Orchestration. A functional delivery site contains Delivery Controllers and Session Machines.

- **External provisioning** – You can augment the ability to create Session Machines in App Orchestration on-demand by also provisioning machines you create with other technologies. When creating Session Machine Catalogs you can import these externally provisioned machines.

- **Integrated provisioning** – The facility in App Orchestration in which Machine Creation Services (MCS) is used to automatically provision Session Machines from a Session Machine Catalog.

- **Machine Creation Services (MCS)** – A set of services that create VMs from a master image on demand, optimizing storage utilization and providing a pristine virtual machine to users every time they log on. Machine Creation Services is fully integrated and administrated in Citrix Studio.

- **Multi-user catalog –** A collection of Session Machines shared by a large number of users. Multi-user catalogs are designed to deploy a set of standard desktops and applications to multiple users. Desktops and applications are allocated to users on a first-come, first-serve basis. The desktop environment automatically resets to the default configuration when users log off. Session Machines in this catalog run supported versions of Windows Server. In XenDesktop, a *Server OS catalog* corresponds to a multi-user catalog in App Orchestration.

- **Orchestration service account** – The service account used by App Orchestration for such administrative tasks as looking up users and groups in the user domain or accessing the App Orchestration configuration database.

- **Provisioning Services** – A service that allows you to create virtual or physical instances of desktop or server machines.

- **Session Machine** – A virtual or physical machine that hosts desktop and app sessions. It is the machine to which the user connects.

- **Session Machine Catalog** – A collection of session machines that are identically configured. Typically, the machines in a particular catalog are configured using the same master image.

- **Single-user catalog** – A collection of Session Machines for assigning to individual users. Users can personalize the desktop and install applications. The desktop environment remains unchanged between sessions, keeping the user's personalized settings. Session Machines in this catalog run supported versions of the Microsoft Windows operating system. In XenDesktop, a *Desktop OS catalog* corresponds to a single-user catalog in App Orchestration.

- **StoreFront** – StoreFront authenticates users to sites hosting resources, and manages stores of desktops and applications.

- **StoreFront Server Group** – A collection of two or more servers with the same version of StoreFront installed. At least two StoreFront servers (a primary and a backup) are required in a deployment to import tenants and make offerings available to users. Servers with different StoreFront versions cannot reside in the same server group.