App Orchestration Setup Checklist

This checklist is a convenient tool to help you plan and document your App Orchestration deployment. Use this checklist along with the *Getting Started with Citrix App Orchestration 2.0* guide to ensure all preparation tasks required for your environment are performed. You can download this guide from the App Orchestration web site.

Shared Resource Domain

The shared resource domain is where the App Orchestration configuration server and other components shared with multiple tenants reside.

Complete the tasks in this section before you install App Orchestration. You will need to supply the information below when you configure App Orchestration's global settings.

Completed (✓)	Task	Notes
☐	Create a domain to be used as the shared resource domain. *This domain must have a minimum domain functional level of Windows Server 2008 R2.*	Domain name:

Completed (✓)	Task	Notes
☐	Create a Group Policy object that will be associated with all machines in the shared resource domain and configure the following settings: • Set the PowerShell execution policy to **RemoteSigned** • Configure PowerShell remoting • Allow WinRM traffic through Windows Firewall • Allow WinRM remote server management for all servers • Allow WinRM clients to trust all servers • Set Windows Remote Shell maximum memory to 1 GB or more. • Allow unlimited number of remote shells per user. *For instructions for configuring Group Policy, refer to the topic "Create remote administration policies for App Orchestration" in the "Getting Started with Citrix App Orchestration 2.0" guide.*	
☐	Create an Active Directory security group that you designate as the *orchestration service group* (for example, MyDomain\OrchestrationAdmins). *The orchestration service group contains the orchestration service account for the shared resource domain. For security reasons, users in this group should not be members of the Domain Admins group.*	Group name:
☐	Create an organizational unit as the root OU for App Orchestration. *App Orchestration will have permission in this OU to create, move, and remove objects.*	Root OU name:

Completed (✓)	Task	Notes
☐	Create an orchestration service account with the following permissions: • Read and Write permissions on the App Orchestration root OU • Permission to use PowerShell remoting to access all servers in the shared resource domain Add the account to the orchestration service group *For security reasons, this account should not belong to the Domain Admins group.*	User name: Password:

Default User Domain

The default user domain is where App Orchestration service accounts reside. You can create a separate domain or you can designate the shared resource domain for this purpose.

Complete the tasks in this section before you install App Orchestration. You will need to supply this information when you configure App Orchestration's global settings.

Completed (✓)	Task	Notes
☐	Create a domain to be used as the default user domain. *This domain must have a minimum domain functional level of Windows Server 2003.*	Domain name:
☐	Create a user account in the user domain. *For security reasons, this account should not belong to the Domain Admins group.*	User name: Password:

Citrix Product Depot File Share

The Citrix Product Depot file share contains software and files for App Orchestration and other components that are required to provision Delivery Sites, Session Machines, and StoreFront servers. This file share can reside anywhere within the shared resource domain.

Complete the tasks in this section before you install App Orchestration. You will need to supply this information when you deploy Delivery Sites, Session Machines, and StoreFront servers.

Important: *Ensure the file share you create is a Windows (SMB) file share. If you use a Distributed File System (DFS) share, App Orchestration cannot access the files stored on the share and, therefore, cannot provision Delivery Sites, Session Machines, or StoreFront servers successfully.*

Completed (✓)	Task	Notes
☐	Create a network file share called **CitrixProductDepot,** using the following folder structure: *ServerName* \CitrixProductDepot \CloudAppManagementAgents \CitrixStoreFront \XenDesktop \XenApp \XenAppHRP	Location:
☐	**CloudAppManagementAgents folder:** Copy and paste the contents of the **Packages** folder from the App Orchestration installation media.	
☐	**CitrixStoreFront folder:** Copy the entire contents of the StoreFront 2.1 installation media to this folder.	
☐	**XenDesktop folder:** Copy the entire contents of the XenDesktop 7.1 installation media to this folder.	
☐	**XenApp folder:** Copy the entire contents of the XenApp 6.5 installation media to this folder.	
☐	**XenApp/XenAppHRP folder:** Copy the entire contents of the latest Hotfix Rollup Pack to this	

	folder.	
☐	**XenApp/Support folder:** Copy the SQLServer2012 folder (including contents) to this folder. The **XenApp/Support** folder is created when you copied the XenApp installation media to the **XenApp** folder. The **SQLServer2012** folder is located in the **Support/** folder of the App Orchestration media.	
☐	Ensure the orchestration user account can access the file share with Read permissions.	

Database Server

The database server hosts the App Orchestration configuration database. For more information about supported databases, refer to the "Prepare the database server" section in the *Getting Started with Citrix App Orchestration 2.0* guide, available from the App Orchestration web site.

Complete the tasks in this section before you install App Orchestration. You will need to supply this information when you install App Orchestration and deploy Delivery Controllers, Session Machines, and StoreFront servers.

Completed (✓)	Task	Notes
☐	Prepare a server and install Microsoft SQL Server 2008 R2 (minimum): • Join the server to the shared resource domain. • Use Windows authentication. • Ensure SQL Server Browser and the SQL Server instance services are enabled and set to start automatically • Enable remote TCP connections. • Allow SQL traffic to traverse Windows Firewall. *For instructions for configuring Windows Firewall for SQL Server, refer to the topic "To configure database server communication through Windows Firewall" in the "Getting Started with Citrix App Orchestration 2.0" guide.* *Optionally, you can prepare another SQL Server for mirroring to increase availability. For more information, refer to the "Configure SQL Database Mirroring" guide available from the App Orchestration web site.*	Primary database server name: Secondary database server name (optional):
☐	Create a SQL database administrator account. *This account must be a Windows account, using Windows authentication. The account you use to install App Orchestration must have permission to create databases.*	User name: Password:

Citrix License Server

Complete the tasks in this section before installing App Orchestration. You will need to supply this information when you install App Orchestration and deploy Delivery Sites, Session Machines, and StoreFront servers.

Completed (✓)	Task	Notes
☐	Prepare a server and install Citrix Licensing 11.11.1 according to product instructions.	License server name:
☐	Install XenDesktop Platinum licenses.	

NetScaler Gateway

To secure access to your App Orchestration deployment, NetScaler Gateway enables you to configure policy and action controls while allowing tenants' users to access the apps and desktops they need. For more information about configuring NetScaler Gateway for use with App Orchestration, refer to the *Configure Load Balancing and StoreFront for App Orchestration* guide available on the App Orchestration web site.

Complete this task before you install App Orchestration. You will need this information when you configure App Orchestration's global settings.

Completed (✓)	Task	Notes
☐	Install and configure NetScaler Gateway according to product instructions.	Gateway address:

App Orchestration Configuration Server

The configuration server hosts the App Orchestration configuration service and the web based management console. App Orchestration requires at least one configuration server in the deployment. However, you can deploy multiple configuration servers to provide high availability and scalability.

Complete the tasks below before you install App Orchestration. You will need this information when you install the software on the configuration server.

Completed (✓)	Task	Notes
☐	Prepare one or more servers to be used as the App Orchestration configuration server(s). *For system requirements, refer to the "Prepare the App Orchestration configuration server" section in the "Getting Started with Citrix App Orchestration 2.0" guide.*	Primary server name: Backup server name (optional):
☐	Join the server(s) to the shared resource domain.	
☐	Install a valid SSL certificate, signed by a trusted Certificate Authority, in the local computer's certificate store. *For proof-of-concept deployments, you can use a wildcard certificate.* ***Important:** Citrix strongly recommends using SSL to secure connections with all components in your App Orchestration deployment, including API calls, connections to and from the configuration database, and the web management console.*	Friendly name:

App Orchestration Global Settings

After installing the App Orchestration configuration server, you configure the global settings using the App Orchestration web console. During this process, you must specify the default datacenter for the deployment and the external DNS suffix. You must also decide whether or not to enable network isolation in your deployment.

In App Orchestration, datacenters are used for providing hosted apps and desktops to tenants in distributed geographic locations and for failover. App Orchestration requires at least one datacenter in the deployment. For more information about datacenters, refer to document *Multi-Datacenter Overview* on the App Orchestration web site.

In general, network isolation should be enabled if you intend to provide offerings exclusively to specific tenants. For more information about network isolation, refer to the document *App Orchestration Isolation* on the App Orchestration web site.

Completed (✓)	Task	Notes
☐	Specify the name of the primary datacenter.	Name:
☐	Specify the external DNS suffix. *The external DNS suffix is the top-level domain of your external-facing DNS server. This influences the defaults for connection routing, but can be overridden, if necessary.* *Example: For a datacenter named ag.us.mycompany.com, the suffix "mycompany.com" results in the default routing for user connections to a datacenter named "us."*	Suffix:

☐	Enable network isolation? *If you intend to enable network isolation, you must create and label at least three virtual networks on your compute resources. These networks must exist before you configure the global settings.* *For instructions for creating and labeling these networks, refer to the product documentation for your server virtualization solution.* ***Important:** The labels for the virtual networks are case-sensitive. When entering the network labels in App Orchestration, ensure they match exactly the labels configured on your compute resources.*	Yes / No Shared Delivery Controller Management Network label: Shared Delivery Group Management Network label: Private Management Network label:

Delivery Controllers

Delivery Controllers are responsible for distributing hosted apps and desktops to users, managing user access to hosted apps and desktops, power managing desktops, and reboot cycles for servers. App Orchestration requires at least two Delivery Controllers in a deployment.

Complete the tasks in this section before you deploy Delivery Sites in App Orchestration.

Completed (✓)	Task	Notes
☐	Prepare two or more servers to be used as the Delivery Controllers. *For system requirements, refer to the "Prepare Delivery Controllers and Session Machines" section of the "Getting Started with Citrix App Orchestration 2.0" guide.*	Primary Controller name: Backup Controller name:
☐	Verify the servers **do not** have any Citrix software installed. *If XenApp, XenDesktop, or any other Citrix component is installed, App Orchestration will remove or overwrite these files during server provisioning. To ensure successful provisioning, completely remove all Citrix software prior to server provisioning.*	
☐	Join the servers to the shared resource domain.	

Session Machines

Session Machines host apps and desktops for tenants' users to access. Collections of Session Machines are grouped in catalogs and can be added to Delivery Groups to restrict access to specific users. App Orchestration requires at least one Session Machine in the deployment, so you can create offerings and subscriptions.

Important: *App Orchestration requires that all the machines in a catalog be identically configured, including installed operating system, updates, and applications you want to offer to tenants. When you add the first Session Machine to a catalog, App Orchestration uses the machine's configuration to establish the machine profile for the catalog, which subsequent machines must match. If you attempt to add a machine that does not match the profile, App Orchestration does not add it to the catalog.*

On-demand Catalogs (Integrated Provisioning enabled)

For more information about preparing your environment for and enabling integrated provisioning, refer to the document *Integrated Provisioning Deployment Guide* available on the App Orchestration web site.

Completed (✓)	Task	Notes
☐	Prepare a compute resource (host and management machines) according to the product documentation and the needs of your organization. *When you create an on-demand catalog in App Orchestration, you must specify the following details about the compute resource:* • *Whether the compute resource is running XenServer, ESX, or Hyper-V (resource type)* • *A friendly name by which you can identify the compute resource* • *The location (URL or IP address) of the compute resource* • *Credentials for the compute resource*	Resource type: Friendly name: Address: User name: Password:

Completed (✓)	Task	Notes
☐	Using the management console for the compute resource, create and set up a VM to use as a template for other Session Machines that are added to the catalog. *Setting up a VM might include:* • *Installing the guest operating system and applicable service packs or updates* • *Verifying virtual devices such as hard disks are configured correctly* • *Installing integration tools required to optimize interaction with the host machine* • *Installing third-party tools such as antivirus software* • *Installing applications you want to include in offerings*	VM name:
☐	Join the VM to the domain for which you want newly-created Session Machines to be members. *The domain to which you join the VM must have a Group Policy defined that allows PowerShell remoting and sets the execution policy. For more information, refer to the section "Create remote administration policies for App Orchestration" in the "Getting Started with Citrix App Orchestration 2.0" guide.* *The VM must be a member of either the shared resource domain or a domain that has a two-way trust with the shared resource domain. Ensure that the Orchestration Service Administrator account (defined in App Orchestration's global settings) has the ability to use PowerShell remoting to connect to the VM and install software.*	

Completed (✓)	Task	Notes
☐	On the VM, in **Advanced TCP/IP Settings**, configure the following settings for the VM's network connection: • In **DNS suffix for this connection**, enter the shared resource domain name. • Select **Use this connection's DNS suffix in DNS registration**.	

Catalogs for Externally-Provisioned Machines

Completed (✓)	Task	Notes
☐	Prepare one or more machines to be used as Session Machines. *All machines to be added to the catalog must meet the following requirements:* • *Have the same hardware configuration and all installed software (including operating system, installed updates, and applications).* • *Capable of running XenApp 6.5 or XenDesktop 7 VDA software, according to the product's system requirements*	Machine #1 name: Machine #2 name: Machine #3 name: Machine #4 name:
	Join the machines to the appropriate resource domain. *If the machines will be shared among multiple tenants, join them to the shared resource domain. If the machines will be allocated to a specific tenant, join them to the tenant's private resource domain.*	Resource domain name:

StoreFront Servers

StoreFront authenticates users to sites hosting resources and manages stores of apps and desktops that users access with Citrix Receiver. App Orchestration requires at least two StoreFront servers in the deployment. You can deploy multiple StoreFront server groups to provide high availability and scalability.

Completed (✓)	Task	Notes
☐	Prepare two or more servers to be used as the StoreFront server group. *For system requirements, refer to the "Prepare StoreFront servers" section in the "Getting Started with Citrix App Orchestration 2.0" guide.*	Primary StoreFront server name: Backup StoreFront server name:
☐	Verify the server(s) **do not** have any Citrix software installed. *If StoreFront or any other Citrix component is installed, App Orchestration will remove or overwrite these files during server provisioning. To ensure successful provisioning, completely remove all Citrix software beforehand.*	
☐	Join the servers to the shared resource domain.	
☐	Install a valid SSL certificate, signed by a trusted Certificate Authority, in the local computer's certificate store. *For proof-of-concept deployments, you can use a wildcard certificate. The certificate must have the same Friendly Name on all computers.*	Friendly name:

☐	Install and configure a load balancer for the StoreFront server group. *For more information about configuring load balancing with StoreFront, refer to the document "Configure Load Balancing and StoreFront for App Orchestration" on the App Orchestration web site.*	Load Balancer URL:

First Tenant

Completed (✓)	Task	Notes
☐	Specify the tenant name.	Tenant Name:
☐	Create an organizational unit in the shared resource domain where the tenant's private machines will reside.	OU Name:
☐	Create the tenant's user domain and add an organizational unit where the tenant's user accounts will reside.	User domain name: OU Name:
☐	Create user groups for the tenant in the user domain, under the tenant's user OU. *These user groups will be used later for creating subscriptions, so they should organize users by the sets of apps and desktops that you intend to deliver to those users.*	User Group #1: User Group #2: User Group #3: User Group #4:
☐	Create user accounts for the tenant's users and add them to the appropriate user groups.	