

**White  
Paper  
Citrix  
Cloud -  
migrate  
from on  
premise**

## Move from a completely on-premise deployment to managed from Citrix Cloud, or to a completely cloud based deployment

This white paper details how you can use Citrix Cloud to migrate from a completely on-premise deployment to a cloud managed or a cloud hosted deployment. This migration is designed to be done in phases so you can do the migration with no downtime for your users

### Migrating from a completely on-premise deployment to an on-premise deployment managed through Citrix Cloud or completely on the cloud

First, let's go over why you would want to do this. It offers you the flexibility of keeping your company critical data, your Virtual Delivery Agents (VDAs) on-premises while still being able to get the benefits of an always up-to-date XenApp instance in the cloud managed by Citrix. Also, you don't have

to manage components such as Studio, Director, Delivery Controllers and the SQL server. All those components are managed for you in Citrix Cloud.

### 1. Create a Citrix Cloud account and an account with a public cloud provider

Fig 1 shows a typical on-premise deployment that we will use as an example. First we will need to sign up for a Citrix Cloud account and a public cloud account like Azure or Amazon.

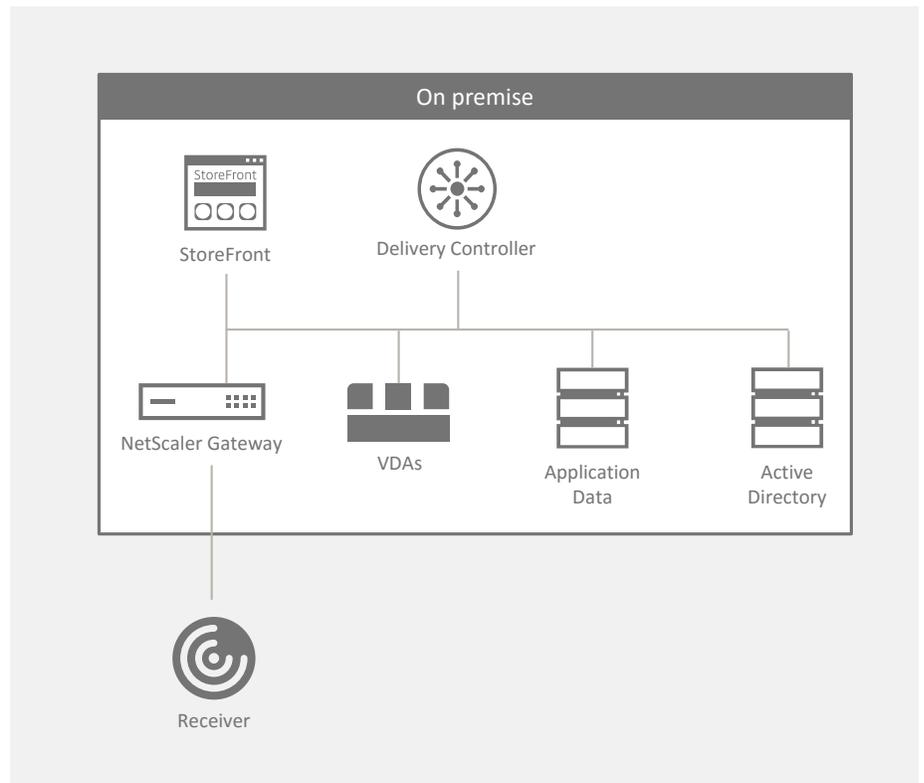


Fig 1: An example on-premise deployment

## 2. Establish VPN or ExpressRoute connectivity, and connect AD

The next thing you need to do is connect the subscription in the public cloud with your on-premises environment. Typically, you can do this with a Virtual Private Network (VPN) like CloudBridge, Azure ExpressRoute or AWS Direct Connect. You also need to connect your Active Directory (AD). Now, you have a couple of options here for Active Directory. You can stand up two domain controllers in your region in the cloud and make them another site within your existing AD environment. Or you can create a completely separate forest for the cloud.

## 3. Install Cloud Connectors. Add the Connectors as XML servers to the existing StoreFront

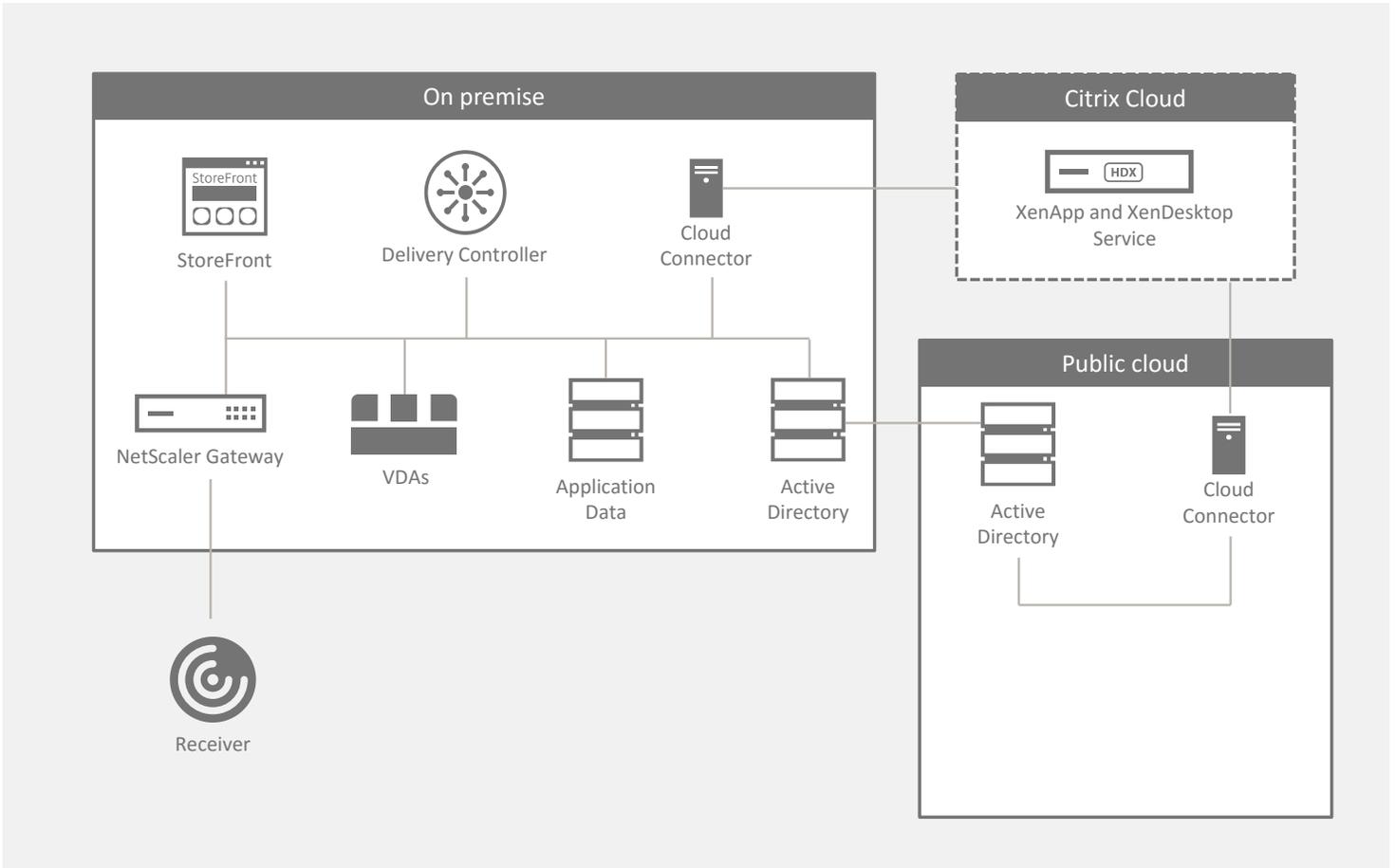
Next you need to install the cloud connectors. In this scenario, though, instead of just installing one pair of cloud connectors, you need to install two pairs. A pair in the resource location in the cloud and another pair on premises. The reason we're installing this pair on premises is to help us do a phased migration. They are temporary, and you can

uninstall them later. It will help you migrate workload by workload. You need to add the connectors to your StoreFront so you can expose applications coming from both, through one StoreFront to the end users. In this case, you will also need to install Cloud Connectors in both forests.

## 4. Install a pair of NetScaler VPXs. Configure StoreFront Optimal Gateway Routing

Next, you need to move the gateway. Please see Fig 3 for this section. So you need to install a pair of NetScaler Gateway VPXs in the public cloud. StoreFront has a feature called "optimal gateway routing." This is really useful in hybrid scenarios where you have some applications that are on-premises, and some applications in the cloud. When you configure optimal gateway routing, you can configure multiple gateway addresses in StoreFront. Depending on where the VDA is, StoreFront will direct it to the NetScaler on-prem, if the VDA is on-prem; or to the NetScaler in the cloud, if the VDA is in the cloud. So you will be able to use both NetScalers at the same time from one storefront.

Fig 2: Establish connectivity, connect AD and install Cloud Connectors



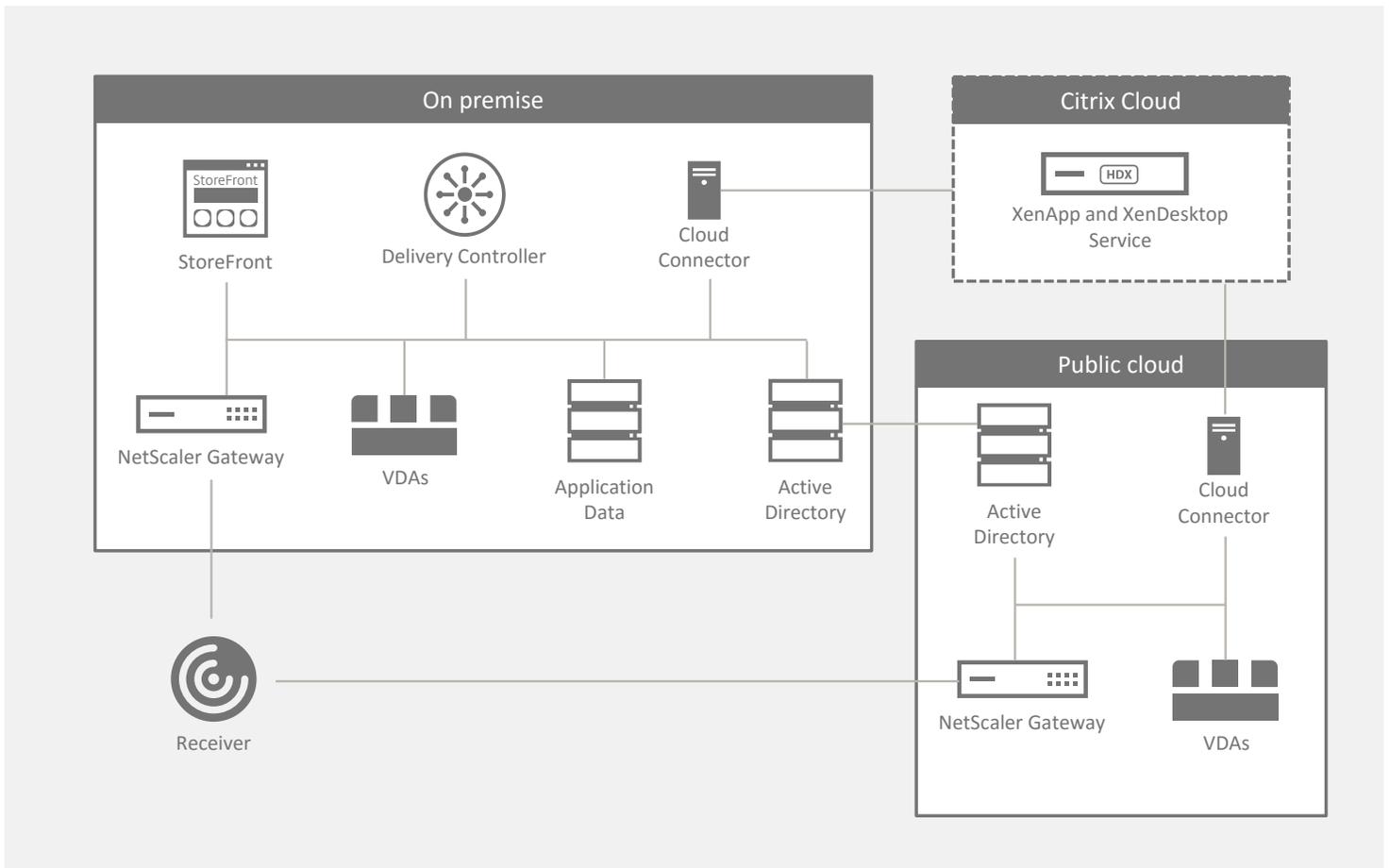


Fig 3: Use MCS to provision new VDAs in the public cloud

**5. Use MCS to provision new VDAs in the cloud. VM images may be reused if 7.6 or greater**

With this configured, you can start doing the migration. You can use Machine Creation Services with either AWS or Azure provisioning, to create these VMs. If your VDAs today are on 7.6 or greater, you can reuse the same images. We support 7.6 and up as VDAs with the XenApp and XenDesktop service.

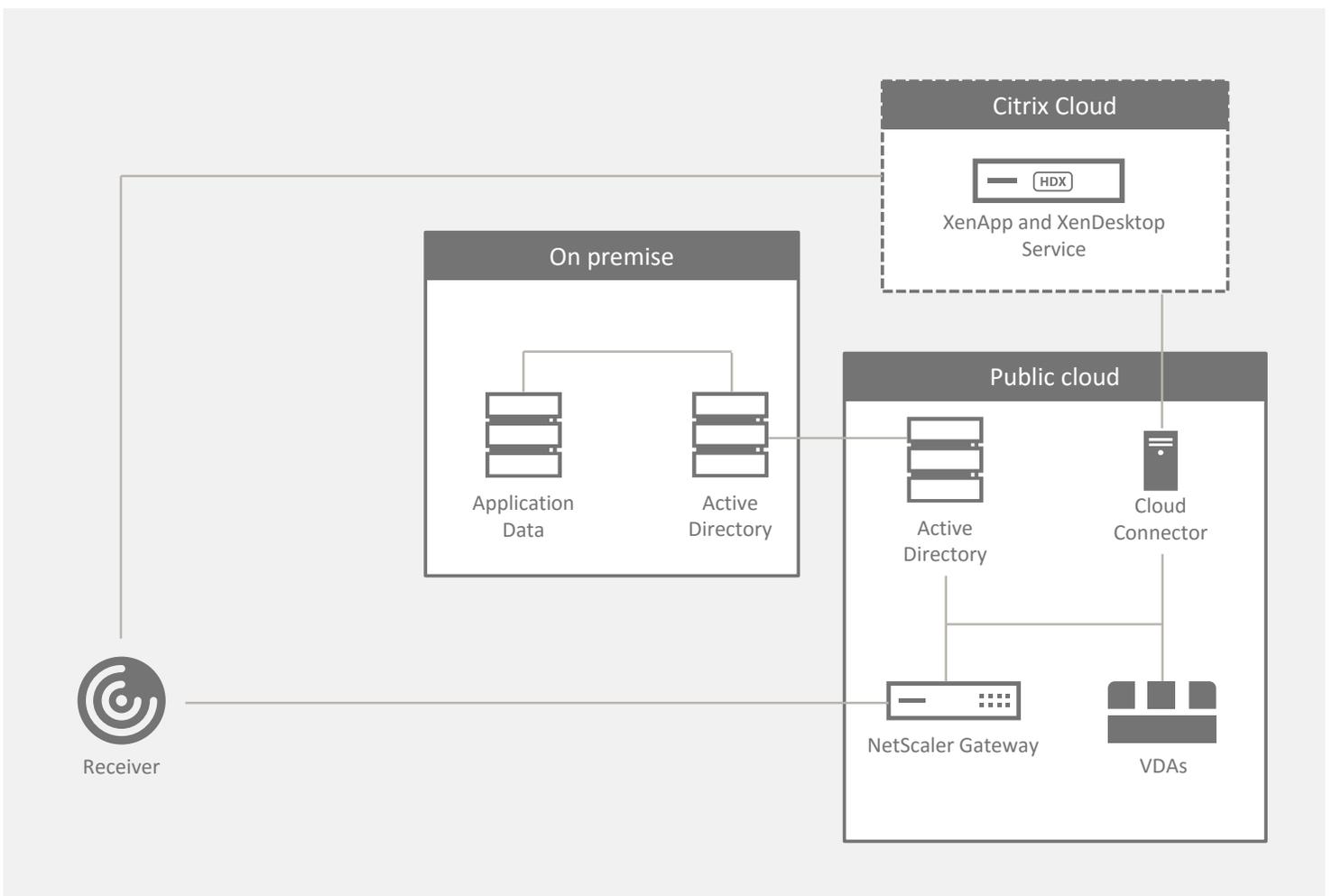
**6. Redirect StoreFront URL. Decommission old infrastructure, including on-premises connectors**

Once you have moved all your VDAs over, you can redirect your StoreFront URL, from your existing URL, to the URL of the StoreFront that's hosted in the cloud service. Please follow this in Fig 4 on the next page. Now you can decommission all your on-premises infrastructure including the cloud connectors. Now, you have completed migrating the on-premise components to a public cloud.

**7. Application data may be moved to the cloud, or connect over VPN**

You will notice that we left the application data on-premises. It is very application-specific, whether you want to move it to the cloud. For some workloads, it needs to be next to the application because it is latency sensitive. It will depend on the latency between the region you pick in the cloud and your on-premises environment. So you may or may not move that application data to the cloud.

If you would like to move everything to the public cloud, then you can either use a hosted Active Directory service such as Azure AD or use the Active Directory setup in the public cloud and remove your on-premise Active Directory. So, we started with a completely on-premise deployment and migrated to a setup where the VDAs are hosted on a public cloud but the application data still resides on-premise.



**Fig 4: Migrated to public cloud**

This shows a completed setup that is now running the VDAs in the cloud with the application data on-premises. Let us summarize the steps again:

- Create a Citrix Cloud account and an account with a public cloud provider
- Establish VPN CloudBridge, Azure ExpressRoute or AWS Direct Connect and connect AD
- Install a pair of Cloud Connectors on-premise and in the public cloud
- Add the Connectors as XML servers to the existing StoreFront
- Install a pair of NetScaler VPXs
- Configure StoreFront Optimal Gateway Routing
- Use MCS to provision new VDAs in the cloud. VM images may be reused if 7.6 or greater
- Redirect StoreFront URL to the cloud
- Decommission old infrastructure, including on-premise connectors
- Application data may be moved to the cloud, or connect over VPN



**Enterprise Sales**  
 North America | 800-424-8749  
 Worldwide | +1 408-790-8000

**Locations**  
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