NetIQ Access Manager

Appliance Whitepaper


NetIQ.

Legal Notice

Contents

1 Introduction 5
2 When to Choose the Access Manager Appliance 7
3 Access Manager and Access Manager Appliance Comparison 8
4 General Guidelines 14

1 Introduction

Access Manager Appliance is a new deployment model introduced from NetIQ Access Manager 3.2 onwards. It includes all major components such as Administration Console, Identity Server, and Access Gateway in a single soft appliance. This solution differs from the other Access Manager model where all components can be installed on separate systems. Access Manager Appliance enables organizations to rapidly deploy and secure Web and enterprise applications. This simplifies access to any application. The reduced deployment and configuration time gives quick time to value and helps to lower the total cost of ownership.

Some of the key differentiators that Access Manager Appliance offers over the Access Manager solution are:

- Quick installation and automatic configuration
- Single port configuration and common location to manage certificates
- Sample portal for administrator reference
- Fewer DNS names, SSL certificates, and IP addresses
- Reduced hardware requirements

For details about these differentiators and other features of Access Manager Appliance, see Access Manager and Access Manager Appliance Comparison

The following diagrams describe the differences between Access Manager and Access Manager Appliance:

Figure 1: Typical Deployment of Access Manager

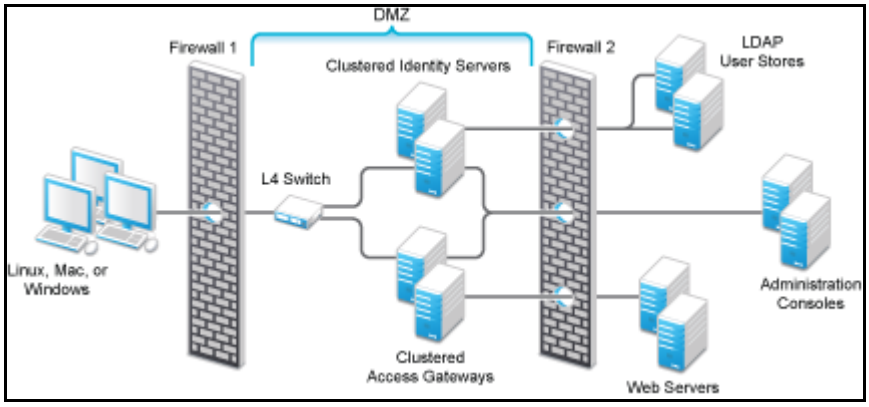
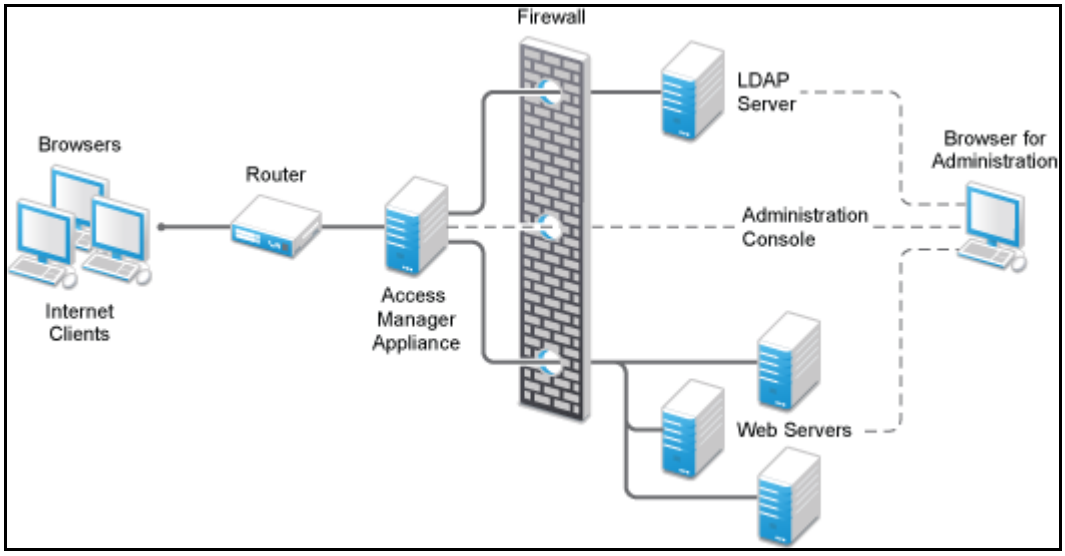


Figure 2: Typical Deployment of Access Manager Appliance



2 When to Choose the Access Manager Appliance

This section describes scenarios in which you can deploy Access Manager.

- You are interested in deploying Access Manager, but need fewer servers.
- You are still on iChain because you prefer a single-server solution.
- You are new to Access Manager and are interested in providing secure access, but want to avoid the long process of designing, installing, and configuring a full-fledged Web access management solution.
- You do not have a Web access management or federation solution and you are considering moving to a Web access management solution.
- You represent a division of a large organization (for example, the Marketing division) that wants secure single sign-on access to a SaaS application such as Salesforce.
- You want to reduce server hardware and management cost by consolidating Access Manager services on fewer servers.
- You want to quickly set up a test environment to verify changes.
- You want to quickly setup and evaluate Access Manager.

3 Access Manager and Access Manager Appliance Comparison

Both Access Manager and Access Manager Appliance deployment models use a common code base. But, the differences in the deployment method result in few similarities and differences in both models. The following table provides details to help you determine which solution fits your business:

Feature	Access Manager Appliance	Access Manager
Virtualization Support	Supported on the virtual servers based on SUSE Linux Enterprise Server (SLES) 11 SP3, or SLES 12 with 64-bit operating system x86-64 hardware.	Supported on the virtual servers based on SUSE Linux Enterprise Server (SLES) 11 SP3, or SLES 12 with 64-bit operating system x86-64 hardware.
Host Operating System	A soft appliance that includes a pre-installed and configured SUSE Linux operating system. NetIQ maintains both the operating system and Access Manager patches through the patch update channel.	Operating System choice is more flexible. Install Administration Console, Identity Server, and Access Gateway on a supported operating system (SUSE, Red Hat, or Windows). The patch update channel maintains the patches for Access Manager. You must purchase, install, and maintain the underlying operating system.
Component Installation Flexibility	Access Manager components such as Administration Console, Identity Server, and Access Gateway cannot be selectively installed or uninstalled.	Each Access Manager component such as Administration Console, Identity Server, and Access Gateway are installed on independent host servers. Although the ability to install multiple components on a single host server exists, it is very limited and generally not recommended. A typical highly available deployment requires 6-8 or more virtual or physical servers (2 Administration Consoles, 2 Identity Servers, 2 Access Gateways).
Administration Console Access	Administration Console is installed on Access Manager Appliance along with all other components. If you use two network interfaces, access to the Administration Console can be limited to the private IP network bound to the internal network. The public interface is bound to an externally accessible network.	Administration Console can be installed on an independent host inside your private network but can still securely manage Access Manager components that reside in your DMZ or external network.

Scalability and Performance	Scales vertically on adding CPU and memory resources to each node. For more information, see Performance and Sizing Guidelines.	Scales both vertically and horizontally on adding nodes. For more information, see Performance and Sizing Guidelines.
High Availability	Supported	Supported
Upgrade	You can upgrade from one version of Access Manager Appliance to another version. However, upgrading from Access Manager to Access Manager Appliance is not supported.	You can upgrade from one version of Access Manager to another version. However, upgrading from Access Manager Appliance to Access Manager is not supported.
Migration from Access Manager to Access Manager Appliance or vice-versa	During migration from Access Manager Appliance to Access Manager, the policies can be exported but the rest of the configuration should be done manually.	During migration from Access Manager Appliance to Access Manager, the policies can be exported but the rest of the configuration should be done manually.
Disaster Recovery	You can use the backup and restore process to save your Access Manager Appliance configuration.	You can use the backup and restore process to save your Access Manager configuration.
Time to Value	Automates several configuration steps to quickly set up the system.	Requires more time to install and configure as the components are on different servers.
User Input required during installation	Access Manager Appliance is a software appliance that takes only a few basic parameters as input. Several options assume default values.	More flexibility during installation in terms of selectable parameters.
Installation and Configuration Phases	The installer takes care of configuration for each component. The system is ready for use after it is installed.	Separate installation and configuration phases for each component. After installation, each Access Manager component is separately configured.
Mode of release	Access Manager Appliance is released as a software appliance.	Access Manager is delivered in the form of multiple operating system- specific binaries.
NIC Bonding	IP address configuration is done through the Administration Console. So, NIC bonding is not supported.	NIC bonding can be done through the operating system and Access Manager in turn uses this configuration.
Networking: Port Details	The Administration Console and Identity Server are accelerated and protected by Access Gateways. Only HTTPS port 443 is required to access the Access Manager Appliance through a firewall.	Multiple ports need to be opened for deployment.
Networking: General	Administration Console must be in DMZ, but access can be restricted through the private interface.	As Administration Console is a separate device, access can be restricted or Administration Console can be placed in an internal network.

Certificate Management	Certificate management is simplified. All certificates and key stores are stored at one place making replacing or renewing certificates easier.	Changes are required at multiple places to replace or renew certificates.
Certificate Management: SAML Assertion Signing	Same certificate is used for all communication. (signing, encryption, and transport).	As there are multiple key stores, you can configure different certificates for the communication.
Associating different signing certificates for each service provider	Not supported	A unique signing certificate can be assigned to each service provider. In environments with a large number of trust relationships, this feature eases the process of replacing expiring certificates. Note: This is a feature that was introduced in Access Manager 3.2 SP2.
Associating different certificates to Identity Server	Not applicable because the Identity Server is accelerated by the Access Gateway.	Supported. The Identity Server can be behind the Access Gateway or can be placed separately in the DMZ.
Sample Portal	After a successful installation, a sample Web portal is deployed for the administrator's reference. The administrator can access the sample portal by using the http://hostname URL. This portal provides detailed example of Access Manager Appliance usage and policy configuration.	Not available.

Ready-made Access Manager	The following configuration is automatically done when Access Manager Appliance is installed: • Importing Identity Server and Access Gateway components. • Automatic cluster creation of Identity Server and Access Gateway component. • Automatic configuration of Identity Server to bring it to green state. • Automatic configuration of Access Gateways and Identity Server association. • Automatic service creation to accelerate or protect the Identity Server, Administration Console, and sample portal. As the inter-component configuration is automated, the administrator only needs to add the existing user store and accelerate, protect, sso-enable existing Web applications.	Each component is manually configured and set up before Web applications can be federation enabled, accelerated, protected.
Updating Kernel with Security Patches	Supports installation of latest SLES operating system security patches.	You are fully responsible for all operating system maintenance including patching.
Clustering	For additional capacity and for failover, cluster a group of NetIQ Access Manager Appliances and configure them to act as a single server. You can cluster any number of Identity Servers and Access Gateways, and up to three of Administration Consoles. The first three nodes of Access Manager Appliance contain the Administration Console, Identity Server, and Access Gateway. Fourth installation onwards, the node has all components except for the Administration Console. A typical Access Manager Appliance deployment in a cluster is described in Figure 4.	For additional capacity and for failover, cluster a group of Identity Servers and configure them to act as a single server. You can create a cluster of Access Gateways and configure them to act as a single server. Fault tolerance can be achieved by installing up to two secondary consoles. To deploy the existing solution in a cluster mode, at least 6 systems are required. A typical Access Manager deployment in a cluster is described in Figure 3.

Figure 3: Access Manager Cluster

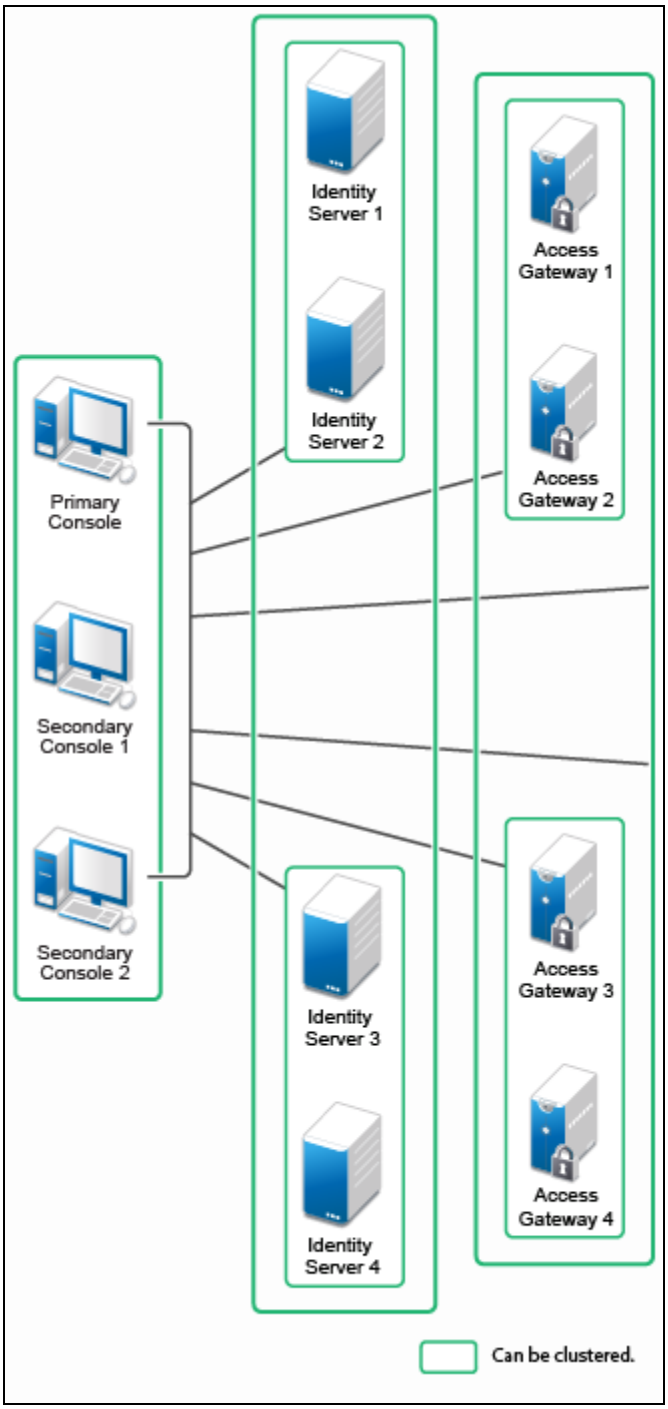
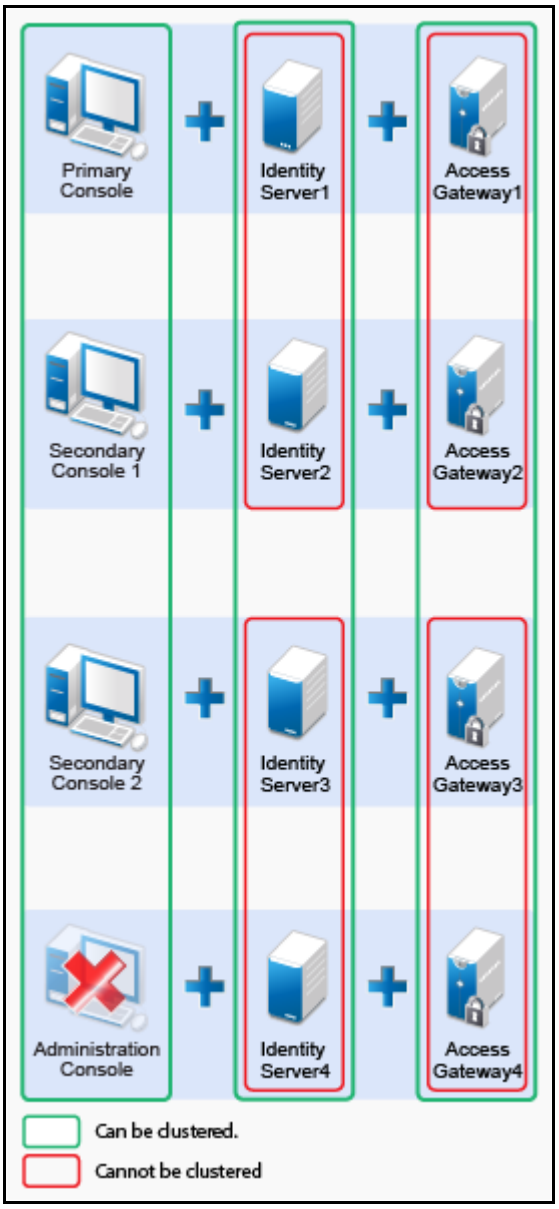


Figure 4: Access Manager Appliance Cluster



4 General Guidelines

Use the following general guidelines when using the Access Manager Appliance:

- It is not possible to add an Access Gateway Service or Access Gateway Appliance to an Access Manager Appliance cluster.
- Deploying the Administration Console in a DMZ network limits access from a private interface or network.
- It is recommended to not change the primary IP Address of an Access Manager. This may result in corruption of the configuration store. However, you can modify the Listening IP address of reverse proxy or the outbound IP address used to communicate with the Web server. For more information, see Changing the IP Address of Access Manager Appliance in the NetIQ Access Manager Appliance 4.2 Administration Guide.
- You cannot have different certificates for signing, encryption in a Federation setup.
- You cannot install any monitoring software to monitor statistics on an Access Manager Appliance.
- Clustering between Access Manager and Access Manager Appliance is not supported.