



Vendor: Citrix

Exam Code: 1Y0-401

Exam Name: Designing Citrix XenDesktop 7.6 Solutions

Version: DEMO

Case Study Questions

Executive Summary

CGE is a global, diversified, upstream (exploration and production) oil and gas company headquartered in North America. CGE's three main operating areas are North America, Europe, and Southeast Asia. CGE also has a portfolio of international exploration opportunities.

CGE began in North America as a small, upstream oil and gas company. Through acquisitions, CGE grew quickly and acquired companies globally. This led to a decentralized IT model, both from systems and personnel perspectives.

CGE currently utilizes several Citrix technologies to provide application virtualization to a global end-user base spread across several continents. Its current IT model for application virtualization is based on regional locations; each region hosts its own Citrix environment to support its local end-user base. CGE is moving toward a global IT model in which the entire application and desktop virtualization environment will be hosted in three data centers, each with a highly available NetScaler pair. CGE would like to provide dedicated desktops to some end-user groups to alleviate past issues with applications and performance. In addition, an Internet upgrade project is underway to eliminate slow connections at all sites. This will improve latency and bandwidth issues throughout the environments.

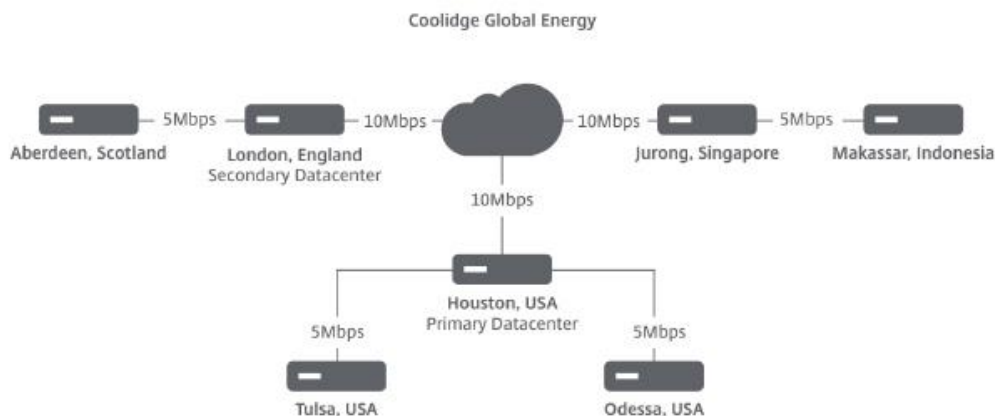
CGE engaged Citrix Consulting to determine whether best practices are being followed in its existing Citrix environments; to provide a design document for a new, consolidated Citrix environment; and to point out risks that should be resolved before moving to this new environment. This deliverable represents the output of the requirements gathering phase and will be used as an input during the architectural design phase of this engagement.

Through interactive meetings, Citrix Consulting obtained information regarding CGE's existing Citrix XenApp environments and strategic goals. By reviewing this information, CGE can understand and methodically address those areas that represent the most profound risks, improve various facets of its current environments, and prepare for the future design phase of a consolidated environment.

Overview

CGE has locations spread across three primary regions—North America, Europe, and Southeast Asia—with its primary headquarters located in Houston. Sub regions exist within each region, each with its own Citrix infrastructure. Once power and cooling upgrades are complete, Houston will be the primary datacenter and London will be the secondary datacenter.

The following diagram details the locations and network connection types.



Business Layer Overview

Since CGE expanded quickly through acquisitions, corporate IT left infrastructure management up to the acquired companies. As a result, some regions have well-run Citrix environments, while others experience critical outages that simultaneously affect hundreds of end users.

CGE's CIO, who has been with CGE for slightly less than a year, was hired to be the central point for IT across all regions. The CIO has engaged with the various business units to understand their processes and received various complaints about the stability of the existing Citrix infrastructures.

The CIO feels that the majority of Citrix infrastructure issues are due to a lack of centralized control and common platforms. Some regions have older versions of XenApp, while some are more current. As CGE moves forward, the CIO plans to use a single vendor for the entire solution, and wants to ensure that the new infrastructure is virtualized and fault tolerant.

End-User Layer Overview

CGE has 10,350 employees, approximately 4,700 of which access the Citrix environments daily. Peak logon times are Monday through Friday, from 8:00 a.m. – 10:00 a.m., based on local, regional time zones. Technicians and engineers are shift workers who rotate to accommodate a 24 hours a day, seven days a week schedule.

End user distribution is as follows:

Location	Number of Citrix End Users	GMT (Greenwich Mean Time)
Houston	1,075	GMT -6:00
Odessa	600	GMT -6:00
Tulsa	600	GMT -6:00
London	400	GMT 0:00
Aberdeen	1,100	GMT 0:00
Jurong	325	GMT +8:00
Makassar	600	GMT +8:00

The majority of end users connect using CGE-owned HP laptop and desktop devices. Over 90 percent of these devices are Windows 7-based, as CGE is in the process of completing a Windows XP to Windows 7 migration.

CGE has standardized all these devices on Citrix Online Plug-in for Windows 12.1, and is in the process of testing Receiver for Windows 4.2. In the past, some end users have complained about slowness when typing, which may indicate issues with latency.

CGE also allows end users to connect using non-corporate-owned devices. Many end users connect from personal computers and mobile devices such as Apple iPads and iPhones. End users are instructed to download Citrix Receiver from either the Citrix website or the Android or Apple app stores.

End users can be grouped into six separate categories:

- **Executives/Management** - Regional upper- and mid-level management staff.
- **Back Office** - End users that provide functions such as accounting, administration, human resources, and finance.
- **Research** - End users focus mainly on discovering new energy fields and sources.
- **Engineers** - End users who work with technicians in a senior lead role for both technical and management functions. There is approximately one engineer for every five technicians.
- **Technicians** - Field workers who service the oil and gas equipment.

- **Sales** - Primary customer-facing group. End-user groups and numbers are as follows:

End-user Group	Total Number of End Users	Physical Location
Executives/Management	300	Houston - 175 London - 100 Jurong - 25
Back Office	500	Houston - 300 London - 200
Research	1,000	Houston - 500 Aberdeen - 500
Engineers	500	Odessa - 100 Tulsa - 100 Aberdeen - 100 Jurong - 100 Makassar - 100
Technicians	2,500	Odessa - 500 Tulsa - 500 Aberdeen - 500 Jurong - 500 Makassar - 500
Sales	200	Houston - 100 London - 100

The engineers, technicians, and research groups access Citrix applications primarily in an office-type environment, but may need to access these applications while in the gas and oil fields. In these scenarios, end users connect to Citrix using local Internet connections, ranging from a wireless access point to a tethered mobile device.

To prevent printer driver issues and sprawl, CGE tries to limit end users to their default printer when accessing Citrix. The IT department at CGE's headquarters has mandated that only the Citrix Universal Print Driver be utilized. As each region manages its own Citrix infrastructure, this has been difficult to enforce.

Each end user's home directory is mapped when accessing a Citrix session; the drive-mapping letter varies based on the end user's region. End-user data is stored on different network device types and shares ranging from a Windows CIFS share to an NAS appliance. Corporate IT is unsure if end-user data is being backed up in all regions. CGE hopes to implement formal, corporate-wide standards in the new Citrix environment.

QUESTION 1

Which component should a Citrix Architect recommend to centrally audit any failed logon attempts to NetScaler Gateway? A Citrix Architect is asked to design a new external access architecture for CGE.

- A. Citrix Studio
- B. Citrix Director
- C. Citrix Command Center

D. Citrix NetScaler AppFlow

Answer: C

QUESTION 2

A Citrix Architect reviewed CGE's antivirus policy and found that it does NOT comply with the posted Citrix antivirus recommendations.

What should the architect recommend be added to CGE's antivirus policy?

- A. Enable scanning of network drives.
- B. Disable real-time scanning on Citrix XenApp servers.
- C. Scan all excluded files during the scheduled periodic scan.
- D. Exclude the user profile storage location from antivirus scanning.

Answer: C

QUESTION 3

Scenario:

CGE's security officer states that, for compliance reasons, all network traffic between Delivery Controllers, StoreFront servers, and NetScalers must be encrypted.

Which type of encryption should a Citrix Architect recommend?

- A. SecureICA
- B. IPsec
- C. SSL
- D. L2TP

Answer: C

QUESTION 4

Scenario:

CGE's security officer states that, for compliance reasons, all network traffic between Delivery Controllers, StoreFront servers, and NetScalers must be encrypted.

How should the architect recommend that SecureICA be implemented?

- A. By using NetScaler
- B. By implementing secure Delivery Groups
- C. By implementing an Active Directory Group Policy to configure SecureICA
- D. By installing an SSL certificate in the master image

Answer: B

QUESTION 5

Scenario:

CGE's security officer states that, for compliance reasons, all network traffic between Delivery Controllers, StoreFront servers, and NetScalers must be encrypted.

How should the architect recommend that IPsec be implemented?

- A. By using NetScaler

- B. By implementing secure Delivery Groups
- C. By implementing an Active Directory Group Policy
- D. By configuring a local IPsec policy in the master image

Answer: C

QUESTION 6

Scenario:

CGE's security officer states that, for compliance reasons, all network traffic between Delivery Controllers, StoreFront servers, and NetScalers must be encrypted.
How should the architect recommend that SSL be implemented?

- A. By installing certificates on Citrix infrastructure components
- B. By configuring an Active Directory Group Policy to distribute SSL certificates
- C. By installing a certificate authority server in the DMZ
- D. By installing an SSL certificate in the master image

Answer: B

QUESTION 7

Scenario:

CGE's security officer states that, for compliance reasons, all network traffic between Delivery Controllers, StoreFront servers, and NetScalers must be encrypted.
How should the architect recommend that L2TP be implemented?

- A. By using NetScaler
- B. By implementing secure Delivery Groups
- C. By configuring an Active Directory Group Policy to configure L2TP
- D. By installing a Windows Server OS with Routing and Remote Access Service

Answer: D

QUESTION 8

Scenario:

CGE's security officer states that, for compliance reasons, all network traffic between Delivery Controllers, StoreFront servers, and NetScalers must be encrypted.
Why does using SecureICA meet CGE's compliance requirements?

- A. It encrypts internal ICA traffic.
- B. It encrypts ICA traffic from remote end users.
- C. It enables the SSL Relay service.
- D. It complies with industry-standard SSL encryption requirements.

Answer: D

QUESTION 9

Scenario:

CGE's security officer states that, for compliance reasons, all network traffic between Delivery Controllers, StoreFront servers, and NetScalers must be encrypted.

Why does using IPsec meet CGE's compliance requirements?

- A. It encrypts internal network traffic.
- B. It encrypts ICA traffic from remote end users.
- C. It enables the SSL Relay service.
- D. It complies with industry-standard SSL encryption requirements.

Answer: B

QUESTION 10

Scenario:

CGE's security officer states that, for compliance reasons, all network traffic between Delivery Controllers, StoreFront servers, and NetScalers must be encrypted.

Why does using SSL meet CGE's compliance requirements?

- A. It eliminates the need to distribute an internal root certificate.
- B. It encrypts end-to-end traffic from remote end users.
- C. It enables the SSL Relay service.
- D. It encrypts network traffic between XenDesktop, StoreFront, and NetScaler.

Answer: D

QUESTION 11

Scenario:

A Citrix Architect is asked to design a new external access architecture for CGE. The regional datacenters have NetScaler appliances delivering load-balancing services. Security policy mandates that these internal appliances CANNOT connect to the DMZ.

Which configuration should the architect recommend for the new external access architecture?

- A. One NetScaler located in all three regional datacenters, configured as a cluster using the same Global Server Load Balancing (GSLB) site, secure.cge.com.
Configure the NetScaler Gateway within StoreFront with the SNIP of each NetScaler device.
- B. A high availability pair of NetScalers located in all three regional datacenters.
Configure a single public DNS server record, including all three NetScaler pairs.
- C. A high availability pair of NetScalers located in all three regional datacenters, each configured to use the same Global Server Load Balancing (GSLB) site.
- D. One NetScaler located in all three regional datacenters.
A single public DNS server record should be configured, including all three NetScaler pairs.

Answer: C