PASS DATA CENTER LABS

CCIE Data Center v3.0 Real Labs

Design Module v2

Scenario 1 - Xandar

Lab Workbook Policy

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2. The workbook does not have print access; kindly do not request to enable to print access. However you will have perpetual access to the workbook which you have purchased.

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7. For any queries regarding Questions/Solutions, you can contact us on email: support@chinesedumps.com or skype @ chinesexams@gmail.com. Response time to any of the queries is 24 hours.

8. We do require CISCO ID and Official email id for security purposes. We do not sell without these details. We do background verification of the details provided, so request to give us the correct CISCO ID and official email id.

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11. We do support devices running Windows OS, Mac OS, Android and Mac iOS only

12. We do not provide Refund in any circumstances once the product is sold.

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15. Design Module will be given only 3 days before the CCIE exam

16. For any future update you can check our 'updates' page.

17. Labs are always published in phases. For e.g. if there is a new lab we publish it as First, Second, Third ... till Final release.

18. Client who have purchased our workbooks and services and wishes to attempt the lab, need to consult our experts before their CCIE Lab.

Main Topology
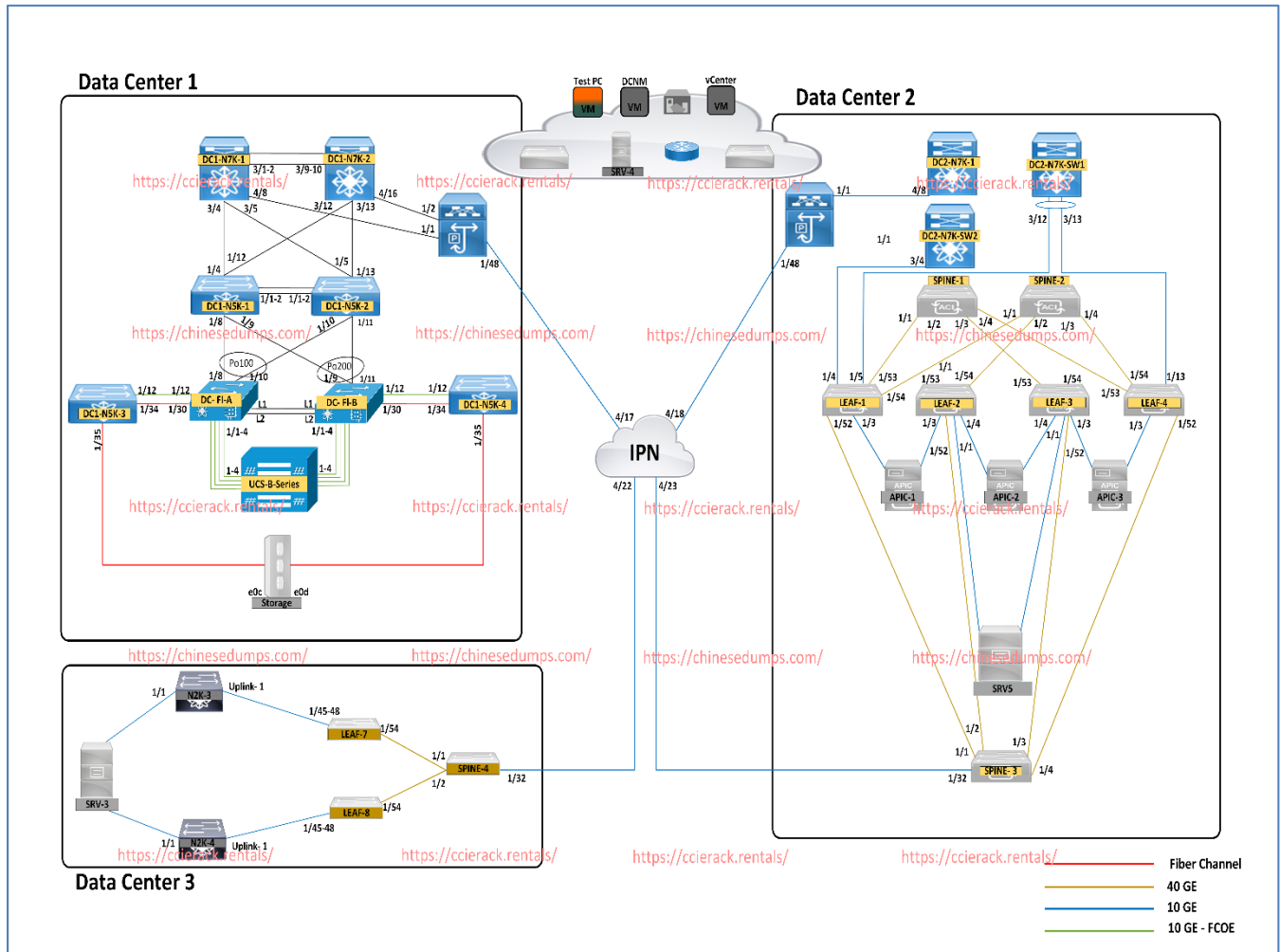
Documents

Introduction

Xandar, a large multinational medical research company, has decided to replace their legacy three-tier core infrastructure with cisco ACI for their next-generation data center infrastructure refresh. Xandar currently has three data centers globally located in the Americas and Europe with future intensions to expand into Asia Pacific. The current Xandar's three-tier infrastructure consists of this in Data center in New York-1:

- Core layer of Cisco Nexus 700 Series Switches
- Distribution layer of Cisco Nexus 5000 Series Switches
- Access layer of Cisco Nexus 5000 series switches

The access layer provides connectivity to the Cisco UCS Infrastructure and storage boxes.

Data center in NewYork-2 consists of a Cisco Nexus 7000 Series Switch core and Cisco ACI infrastructure and the data_center in London is connected using IPN for Multipod connectivity.

One of their deciding factors in choosing ACI was to support their new agile software development framework in order to enable:

- Faster application development
- Testing and deployment in a streamlined and automated manner.

Also, Xandar is considering expanding to the public cloud and considers application security and consistency a top priority, with the rapid growth and expansion of the Xandar business, the networking infrastructure will need to be able to grow as required and should remain highly scalable.

The Xandar network engineering team has made a commitment to the business that in the next 12 months they will support active/active data centers in the United States. During the testing phase for the various vendors technologies, Xandar had setup a small proof of concept deployment of ACI in their primary New York datacenter. The PoC successfully completed and now Xandar is in the process of migrating their legacy workloads to their production ACI deployment which you helped design and configure. The last major hurdle will be validating a migration strategy that will ensure the least amount if disruption to their lines of business.

PASS DATA CENTER LABS

Your Growth Our Goal

Xandar is currently using VRF Lite of segmentation and directing traffic thorough firewalls inside the data centers. Xandar has several business units that are not directly related to each other. Some of their infrastructure is physically on seprate equipment. The CIO at Xandar has committed to the CEO

that he would lower operational expenses and capital expenses where appropriate by leveraging multi-tenancy technologies and IO consolidation.

As a part of strategy, Xandar has settled on using an "IP Storage first" strategy to slowly lower their Fiber Channel footpoint. The reduction of fiber channel optics and cables alone would save the company tens of thousands of dollars annually. To support the existing FC endpoints, you have decided to leverage FCoE where appropriate during this migration.

Being primarily a research and development business, Xandar takes the protection of their intellectual property extremely seriously. Their Chief information Security Officer has some reservations about the security and compliance capabilities of ACI. Part of your challenge will be ensure that all security objectives are met and prove that ACI was choosen as the correct solution for Xandar.

Automation is a key objective for the Xandar to expedite the service delivery. The business objectives of Xandar's data center automation and orchestration are as follows:

- Reduce time to market
- Miminize human errors
- Achieve business agility
- Optimize operational cost

Documents

Company Profile

Company & Character Profiles

Fictional Company Name: **Xandar**
Domain: xandar.com

(Chief Information Officer)
Mike Arnaout
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(Program Manager)

James Rick

Program Manager

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Phone: +1 919 987 6513

Question 1

Welcome to the Xandar company!

Please read all the available resources before starting the scenario by clicking "Next Item".

New Resource Available

Email:

VLANs Addition

From: Charlie Brown <cbrown@xandar.com>
To: Jane Doe <jdoe@xandar.com>
Subject: VLANs addition for research team

Jane,

Welcome to the team! I heard that you have been assigned to help us move forward with ACI. I can't wait until we are fully cut over.

I have been told that you can also help us in the short term. We had a change last night where we needed to add well over 2,000 VLANs to support a project that our research team is developing. When we started to add the VLANs, the switch CPU spiked and we started to lose connectivity to various applications – not good! We backed out of the change but now management wants us to solve the issue.

Thanks,
Charlie

Charlie Brown
Data Center Infrastructure Manager
Email: cbrown@xandar.com
Phone: +1 919 987 6543

From: Jane Doe (jdoe@xandar.com)
To: cbrown <cbrown@xandar.com>
Subject: re: VLANs addition for research team

Hello Charlie,

Thank you! I'm looking forward to helping you with the ACI design and implementation.

I'm not familiar with the environment right now. How many VLANs do you have configured today? Are you having an issue today?

Regards,
Jane

Jane Doe
Support Engineer Lead, Data Center
Email: jdoe@xandar.com
Phone: +1 919 123 4678

From: Charlie Brown <cbrown@xandar.com>
To: Jane Doe <jdoe@xandar.com>
Subject: re: re: VLANs addition for research team

Jane,

Today we have about 1200 VLANs configured. No, we do not have any issues that we're aware of!

Thanks,
Charlie

Charlie Brown
Data Center Infrastructure Manager
Email: cbrown@xandar.com
Phone: +1 919 987 6543

Question 2

Refer to the new resource(s) available.

Which action do you suggest as a quick fix to avoid running into high CPU when 2000 VLANs are added?

- **A.** Disable Spanning Tree
- **B.** Implement HSRP
- **C.** Run 802.1w, but prune VLANs.
- **D.** Enable802.1s in the environment.

Answer:

New resource available

Email:

CIO Email

From: Mike Arnaout <mikea@Xandar.com>
To: Jane Doe <jdoe@Xandar.com><undisclosed-recipient@Xandar.com>
Subject: Engineering design session

Hello everyone,

I have decided to setup an engineering design session next week. The purpose whether we should use BGP or OSPF as our preferred routing protocol. I want you all to consider all available options around this, but also very much outside the box. Let's not be ourselves into things, just because we always used that approach or method.

Please dust off your knowledge and skills prior to the meeting. I expect you to be able to explain the (dis)advantages each protocol has over the other, based on various aspects and scenarios.

Regards,
Mike

Mike Arnaout
CIO Email: mikea@Xandar.com
Phone: +1 919 1234 0790

Question 3

Refer to the new resource(s) available.

This item consists of multiple questions. You may need to scroll down to be able to see all questions. For each of these shared protocol capabilities, indicate which protocol offers more of an advantage over the other.

Protocol Capabilities	Protocol	
	BGP	**OSPF**
Scalability	○	○
Fast convergence	○	○
Ease of troubleshooting and configuration	○	○
Traffic Engineering	○	○
Routing policies	○	○
Flexibility	○	○

Which routing protocol is the best option, given the requirements?

- A. Static routing
- B. OSPF
- C. EIGRP
- D. BGP

Answer:

Protocol Capabilities	Protocol	
	BGP	**OSPF**
Scalability	○	○
Fast convergence	○	○
Ease of troubleshooting and configuration	○	○
Traffic Engineering	○	○
Routing policies	○	○
Flexibility	○	○

New resource available

Thank You for choosing www.passdatacenterlabs.com Workbooks.