IT 认证电子书

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Exam : **000-874**

Title : IBM Tivoli Workflows V3.1

Version : DEMO

1. The customer wants to install a new application in IBM Tivoli Intelligent Orchestrator.   The application consists of three vendor-provided files.   One file is an RPM, which installs a custom Linux install utility called RAR. The other two files are packaged in the RAR format.   The package names are:

    UNRAR.RPM

    RegisterClient.RAR

    DownloadClientCode.RAR

After installation the RegisterClient application needs a 10-minute delay in order to contact the Client server. The customer wants the application to be installed via their existing end-to-end workflow, which uses SoftwareModule.Install LDO.

Which two SoftwareInstallable.Install workflows would implement the customer's request? (Choose two.)

A. workflow Install_UNRAR   (SoftwareID, DeviceID, SoftwareResourceTemplateID) implements SoftwareInstallable.Install

B. workflow Install_RAR_package (SoftwareID, DeviceID, SoftwareResourceTemplateID) implements SoftwareInstallable.Install

C. workflow Install_RPM_package (SoftwareID, DeviceID, SoftwareResourceTemplateID) implements SoftwareInstallable.Install

D. workflow Install_RegisterClient (SoftwareID, DeviceID, SoftwareResourceTemplateID) implements SoftwareInstallable.Install

E. workflow Install_DownloadClientCode (SoftwareID, DeviceID, SoftwareResourceTemplateID) implements SoftwareInstallable.Install

Answer: BC

2. Click the Exhibit button.

Workflow execution fails. The error message is shown in the exhibit. What is the most likely cause of the problem?
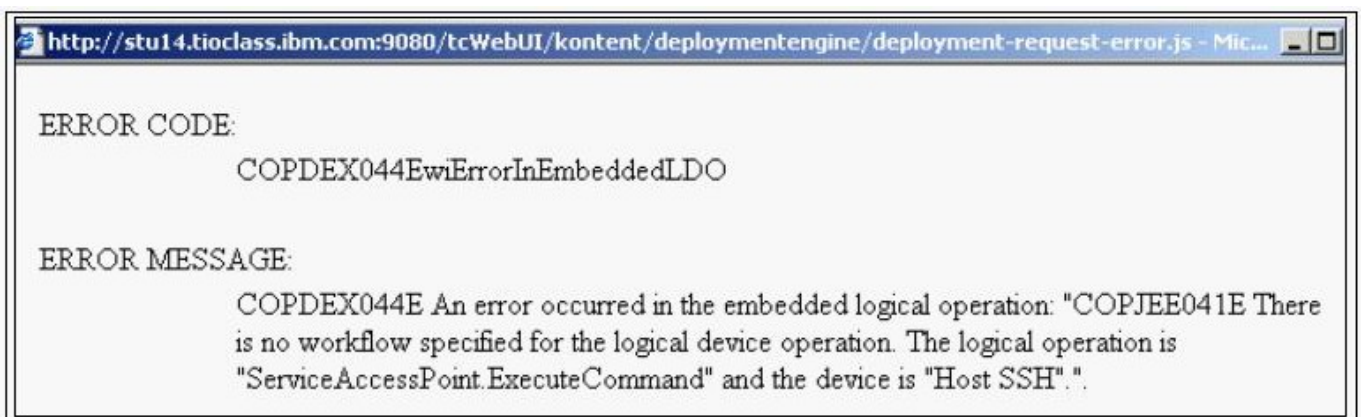
A. No device driver has been associated with the target server.

B. No device driver has been associated with a service access point used by the workflow.

C. No service access point has been defined for the execute-command function on the target server.

D. The workflow is referencing the Device.CopyFile logical operation instead of the Device.ExecuteCommand logical operation.

Answer: B

3. An automation package has been downloaded from the IBM On Demand Automation Catalog, and some customizations have been made to the package contents, by the automation team. The automation team has not told you which customizations have been made, and they now ask you to install this package using the Automation Package Manager command line utility.

You run the Automation Package Manager command line utility and this succeeds with no error messages reported. However, during your testing of this automation package, you note that you are missing workflows, which are mentioned in the Automation Package documentation, which you downloaded from the IBM website. Also, some workflows are failing with errors saying the shell scripts are not found in the $TIO_HOME/bin directory

Which reasons would explain this situation? Choose two answers.

A. The wrong user id and password were specified when you ran the Automation Package Manager command line utility.

B. The workflows are missing and some workflows are failing as entries with the <item> tag have been removed from <items> section in the manifest file contained in the Automation Package.

C. You forgot to manually extract the files with an extension of .wkf in the Automation Package, and copy them into the $TIO_HOME/drivers directory.

D. You forgot to manually extract the shell scripts in the Automation Package, and copy them into the $TIO_HOME/config directory.

E. Whilst you are running your tests, the automation team has removed some of the shell scripts required by the Automation Package from the $TIO_HOME/bin directory.

Answer: BE

4. A target server has a Host SSH SAP with an RSA credential.   The RSA credential has "dbadmin" as the search key and "db2inst1" as the username.   Which of the following is a true statement about the username for the credential on the corresponding client SAP?

A. The username must be "dbadmin"

B. The username must be "db2inst1"

C. The username must be "tioadmin"

D. The username does not matter

Answer: D

5. What are the valid states for a workflow execution request?

A. Successful, Failed, In Progress, Created

B. Success, Failed, Running, Created, Canceled

C. Completed, Failed, In Progress, Created, Canceled

D. Successful, Failed, In Progress, Created, Canceled

Answer: D

6. A customer wants two AIX V5.2 images created and set up in IBM Tivoli Intelligent Orchestrator (TIO) with the following specifications:

Operating System Name   Description

AIX V5.2 Normal   SSH daemon installed.   RSA credentials for root user with root login enabled

AIX V5.2 High Security   SSH daemon installed.   RSA credentials for non-root user with root login disabled. Access to administrative commands will be done through sudo

They want the new images to be used in application deployments in their current TIO installation, which does not contain any third-party TCDRIVERS.

What is sudo?

> Sudo is a command that allows users defined in the /etc/sudoers configuration file to have temporary root access to run certain privileg commands.
> The command to be run first must begin with the word "sudo" followed by the regular command syntax.
> When running the command, the user is prompted for his regular password before it is executed. The user may run other privileged commands using sudo within a five-minute period without being re-prompted for a password.
> All commands that run as sudo are logged in the log file /var/log/messages.

```
Customers workflow:
==============
workflow Add_Server(in ClusterID, inout ServerID) implements Cluster.AddServer
   CheckDeviceLocale ClusterID "en_US"
   var Protocol = "TCP"
   var Deployment_Request_ID
   var Port_Number
   var Load_Balancer_ID
   var Switch_ID
   var Managed_Network_Interface_ID
   var Cluster_IP_Address
   var Software_Stack_ID
   var Port_Module
   var NIC_ID
   var True = "true"
   var Out_TCP_Port
   var Subnetwork_ID
   var Virtual_IP_ID
   var Pool_ID
   var RIPMaxConnections = "1000"
   var Pool_VLAN_ID
   var Cluster_VLAN_ID
   var Weight = "1"
   var portID
   var serverName = DCMQuery(/server[@id=$ServerID\]/@name)
   try

java:com.thinkdynamics.kanaha.de.javaplugin.GetCurrentDeploymentRequestId(Deployment_Request_ID)

   Virtual_IP_ID = DCMQuery(/cluster[@id=$ClusterID\]/virtualip/@id)
   Pool_ID = DCMQuery(/cluster[@id=$ClusterID\]/@poolid)
   Load_Balancer_ID = DCMQuery(/virtualip[@id=$Virtual_IP_ID\]/loadbalancer/@id)
   Cluster_VLAN_ID = DCMQuery(/cluster[@id=$ClusterID\]/servertemplate/nictemplate/@vlanid)
   Pool_VLAN_ID = DCMQuery(/sparepool[@id=$Pool_ID\]/servertemplate/nictemplate/@vlanid)
   Subnetwork_ID = DCMQuery(/vlan[@id=$Pool_VLAN_ID\]/nictemplate/networkinterfacetemplate/@subnetid)

java:com.thinkdynamics.kanaha.de.javaplugin.resourcemanager.RMAllocateServer(ClusterID, Pool_ID,
Deployment_Request_ID, ServerID)

   NIC_ID = DCMQuery(/server[@id=$ServerID\]/nic/@id)
   portID = DCMQuery(/nic[@id=$NIC_ID\]/switchport/@id)
   Port_Number = DCMQuery(/switchport[@id=$portID\]/@portnumber)
   Switch_ID = DCMQuery(/switchport[@id=$portID\]/switch/@id)
   Port_Module = DCMQuery(/switchport[@id=$portID\]/@modulename)


   java:com.thinkdynamics.kanaha.de.javaplugin.datacentermodel.FindDeviceSoftwareStack(ClusterID,
Software_Stack_ID)
   java:com.thinkdynamics.kanaha.de.javaplugin.resourcemanager.RMAllocateIPAddress(Cluster_IP_Address,
NIC_ID, Subnetwork_ID)
   IPSystem.AddNetworkInterface(ServerID, NIC_ID, Subnetwork_ID, <null>, Cluster_IP_Address, <null>, True)

   Managed_Network_Interface_ID = DCMQuery(/server[@id=$ServerID\]/networkinterface[@managed="Y"\]/@id)

   IPSystem.ApplyRoutingTable(ServerID, ClusterID, Managed_Network_Interface_ID, True)
   Switch.MovePortToVLAN(Switch_ID, Pool_VLAN_ID, Cluster_VLAN_ID, Port_Module, Port_Number)
   Device.Ping(ServerID, Cluster_IP_Address, "30", "default", <null>)

   SoftwareModule.Install(Software_Stack_ID, "null", ServerID, "null", "null")

   Out_TCP_Port = DCMQuery(/virtualip[@id=$Virtual_IP_ID\]/@defaultoutputtcpport)

   LoadBalancer.AddRealIPToVirtualIP(Load_Balancer_ID, Managed_Network_Interface_ID, Out_TCP_Port, Protocol,
Weight, RIPMaxConnections, Virtual_IP_ID)
  catchall

   DCMUpdate parent = DCMQuery(/server[@id=$ServerID\]) <<EOUPDATE
         <server name="$serverName" failed="true"/>
    EOUPDATE

   var Reason = "The Cluster.AddServer LDO failed."

   DCMUpdate parent = DCMQuery(/server[@id=$ServerID\]) <<EOUPDATE
         <server name="$serverName" in-maintenance="true"  />
   EOUPDATE
   log info Jython(Reason)
   rethrow
  endtry
==============
```

Which three types of workflows must be implemented to enable the AIX V5.2 High Security OS image to be used by the customer to deploy an application using the given workflow? (Choose three.)

A. SoftwareModule.Install workflow

B. Switch.MovePortToVLAN workflow

C. IPSystem.Add IP Address workflow

D. IPSystem.Apply Routing Table workflow

E. LoadBalancer.AddRealIPToVirtualIP workflow

F. any specific SoftwareInstallable.Install workflows that are executed directly on the target machine and require root access

Answer: CDF

7. Which of the following constructs allow for the section of code represented by the elipse (? to be repeated?   (Choose two.)

A. foreach var in (array) do?done

B. do until (condition) done

C. while (condition) doone

D. for(condition) do... done

E. while (condition)   loop

Answer: AC

8. The customer has two resource pools and one application that currently uses both resource pools.

How would you define a new application tier for the existing application?

A. define a new application, define a new application tier, associate tier with a resource pool

B. define a new resource pool, associate a server template with resource pool, define a new application tier

C. define a new application tier, associate tier with a resource pool, associate workflows for application tier, and associate server template with application tier

D. define a new application tier, associate tier with both resource pools, associate workflows for application tier, and associate server template with application tier

Answer: C

9. You want to write a simple workflow to delete all access rules associated with the ACL named "test" using the DCMAccess constructs. Which string would you include in the workflow?

A. foreach rule in DCMQuery (/acl[@name="test"]/accessRule) do ACMDelete(/acl[@name=$rule]) done

B. DCMDelete(/acl[@name="test"])/accessRule/@id="*"

C. DCMDelete(/acl[@name="test"]/accessRule/@id="*")

D. foreach rule in DCMQuery (/acl[@name="test"]/accessRule) doACMDelete(/accessRule[@id=$rule])

done

Answer: D

10. The following is the contents of a file called myWorkflow.wkf:

workflow Gees_Workflow LocaleInsensitive

var vlan1 = "786"

var vlan2 = "787"

var subnet1 = "194.168.786.86"

var subnet2 = "194.168.787.87"

var netmask = "255.255.255.192"

DCMInsert <<EOINSERT

                                     <subnetwork ipaddress="$subnet1" netmask="$netmask">

                                                     <vlan vlan-number="$vlan1" fabric="Default Fabric"/>

                      </subnetwork>

EOINSERT

DCMInsert <<EOINSERT

                                     <subnetwork ipaddress="$subnet2" netmask="$netmask">

                                                     <vlan vlan-number="$vlan2" fabric="Default Fabric"/>

                      </subnetwork>

EOINSERT

DCMInsert <<EOINSERT

                                     <switch   name="gee-sw1"   is-device-model="Cisco   3548"   fabric="Default   Fabric"

locale="en_US">

                                           <switch-module name="0">

                                                     <switch-port vlan="$vlan1" port-number="24"/>

                                                     <switch-port vlan="$vlan2" port-number="19"/>

                                     </switch-module>

                      </switch>

EOINSERT

When this workflow file is imported, compiled, and executed, which statement is true?

A. The Workflow Execution succeeds.

B. The Workflow Execution fails because multiple subnets cannot be defined in the same workflow.

C. The Workflow Execution fails because a subnet and switch cannot be defined in the same workflow.

D. The Workflow Execution succeeds, but a warning is displayed because OINSERT?is a reserved deployment engine keyword.

Answer: A

11. What is a valid argument to the Automation Package (tcdriver) Manager?

A. forceDriver

B. listDeviceModels

C. listDeviceDrivers

D. listInstalledModels

Answer: B

12. <device-models>

        <device-model   name="MyCompany_Solution_SoftwareInstallable" category="MyCompany_SampleSolution">

                <workflow name="MyCompany_Solution_Install"/>

                <workflow name="MyCompany_Solution_UnInstall"/>

    </device-model>

     <device-model   name="MyCompany_Solution_Installation" category="MyCompany_SampleSolution">

                <workflow name="MyCompany_Solution_RemoveInstance"/>

                <workflow name="MyCompany_Solution_AddInstance"/>

                <workflow name="MyCompany_Solution_UpDateDCM"/>

    </device-model>

     <device-model   name="MyCompany_Solution_Instance" category="MyCompany_SampleSolution">

                <workflow name="MyCompany_Solution_StopInstance"/>

                <workflow name="MyCompany_Solution_StartInstance"/>

    </device-model>

Given the example representing the device models for the MyCompany_Solution software solution, which two workflows are in the wrong device model based on the IBM Tivoli Intelligent Orchestrator software model?　(Choose two.)

A. MyCompany_Solution_AddInstance

B. MyCompany_Solution_UnInstall

C. MyCompany_Solution_UpDateDCM

D. MyCompany_Solution_RemoveInstance

E. MyCompany_Solution_Install

Answer: BD

13. Which of the following is true if a server "belongs to" an application tier?

A. The server may be provisioned to only that one tier from its home resource pool.

B. The server automatically inherits SAP configurations from the tier.

C. Once de-provisioned, the server may be provisioned to other tiers if they draw from the same resource

pool.

D. The server may not be de-provisioned from this tier.

Answer: D

14. Click the Exhibit button AND review the error log below.

A workflow is performing an SSH_RSA_Execute_Command and the following error message is given:

ERROR CODE:

COPTDM076EdeCannotFindMatchingClientCredentials

ERROR MESSAGE:

COPTDM076E The system cannot find matching client credentials on device ID: "3306" against host SAP

ID: "3157".

ERROR DETAIL:

Workflow line: 23

Error Code = COPTDM076EdeCannotFindMatchingClientCredentials

ERROR MESSAGE = COPTDM076E The system cannot find matching client credentials on device ID:

"3306" against host

SAP ID: "3157".

IP = 9.23.109.220

THREAD = Deployment Request 17996

STACK TRACE ==>

com.thinkdynamics.kanaha.de.DeploymentException: COPTDM076E The system cannot find matching

client credentials on device ID: "3306" against host SAP ID: "3157".

at

com.thinkdynamics.kanaha.de.javaplugin.sap.GetSapExecutionCredentials.doIt(GetSapExecutionCrede

ntials.java:93)

at

com.ibm.tivoli.orchestrator.de.instruction.impl.INVOKE_JAVA.execute(INVOKE_JAVA.java:95)

at   com.ibm.tivoli.orchestrator.de.instruction.impl.AbstractInstructionExecutor.execute(AbstractIns

tructionExecutor.java:91)

at

com.ibm.tivoli.orchestrator.de.engine.DeploymentWorker.executeWorkflow(DeploymentWorker.java:409)

at

com.ibm.tivoli.orchestrator.de.engine.DeploymentWorker.executeWorkflow(DeploymentWorker.java:280)

at   com.ibm.tivoli.orchestrator.de.engine.DeploymentWorker$1.run(DeploymentWorker.java:631)

at java.security.AccessController.doPrivileged(Native Method)

at javax.security.auth.Subject.doAs(Subject.java(Compiled Code))

at com.ibm.websphere.security.auth.WSSubject.doAs(WSSubject.java(Compiled Code))

at com.thinkdynamics.users.JaasClientProxy.run(JaasClientProxy.java(Compiled Code))

at

com.ibm.tivoli.orchestrator.de.engine.DeploymentWorker.execute(DeploymentWorker.java:604)

at   com.ibm.tivoli.orchestrator.de.engine.DeploymentWorker.execute(DeploymentWorker.java:586)

at com.ibm.tivoli.orchestrator.de.engine.DeploymentWorker.run(DeploymentWorker.java:563)

How can this problem be resolved?

The following are credentials for the TIO Server and the Target Server:

SAP ID	SAP Name
3157	SSH on TIOSERVER
3306	SSH on TARGETSERVER
3307	Telnet on TARGETSERVER

TIO SERVER:

General | Variables | Workflows | Deployments | Discovery | Monitoring | Storage Needs | Software | Software Stack | Credentials | ⊕Refresh

Service Access Points: TIOSERVER | Edit

	Name	Type	Port	Host	Domain	Context	Auth	
▽ ⓢ SSH	ipv4 / SSH	22	Yes		NOCONTEXT	Yes	ⓠ

Credentials Type	Search Key	Default	
RSA	root	No	ⓠ

Device Operation	Description	Default Access Point	
file-transfer	Transfering file	<none>	ⓠ
set-attribute	set system attribute	<no service points of this type configured>	
execute-command	Executing command	ⓢ SSH	ⓠ
get-attribute	Query system attribute	<no service points of this type configured>	
ping	Return system status	<no service points of this type configured>	

TARGET SERVER:

General | Variables | Workflows | Deployments | Discovery | Monitoring | Storage Needs | Software | Software Stack | Credentials | ⊕Refresh

Service Access Points: TARGETSERVER | Edit

	Name	Type	Port	Host	Domain	Context	Auth	
▽ ⓢ SSH	ipv4 / SSH	22	Yes		NOCONTEXT	Yes	ⓠ

Credentials Type	Search Key	Default	
RSA	root	Yes	ⓠ

	Name	Type	Port	Host	Domain	Context	Auth	
▽ ⓢ Telnet	ipv4 / Telnet	23	Yes		NOCONTEXT	Yes	ⓠ

Credentials Type	Search Key	Default	
password	root	No	ⓠ

Device Operation	Description	Default Access Point	
file-transfer	Transfering file	<none>	ⓠ
set-attribute	set system attribute	<no service points of this type configured>	
execute-command	Executing command	ⓢ Telnet	ⓠ
get-attribute	Query system attribute	<no service points of this type configured>	
ping	Return system status	<no service points of this type configured>	

A. remove the Telnet SAP from the TARGETSERVER

B. select the non-host radio button for SAP SSH on TIOSERVER

C. make the credential for the SSH SAP on TIOSERVER default

D. make SSH the default access point for execute-command on the TARGETSERVER

Answer: B

15. The deployment engine shuts down. Where can the deployment engine process ID be found?

A. $TIO_HOME/logs/deploymentengine/deploymentengine.pid

B. $WAS_HOME/AppServer/deploymente.pid

C. $TIO_LOGS/deploymentengine/deploymentengine.pid

D. $WAS_HOME/logs/deploymentengine/deploymentengine.pid

Answer: C

16. Which log file provides information on IBM Tivoli Intelligent Orchestrator errors?

A. $TIO_HOME/xml/config.xml

B. $WAS_HOME/AppServer/logfile

C. $TIO_LOGS /workflow/error.log

D. $WAS_HOME/logs/server1/SystemOut.log

Answer: D

17. Which command is used to get the numerical ID of the server sun-e3500-4, which exists in the Data Center model?

A. soapcli.cmd gazoo gazoo http://localhost:9080/tcSoap/wsdl/com/ibm/tc/soap/

ResourceInformationService.wsdl getObjectIdFromHostName sun-e3500-4

B. soapcli.cmd gazoo gazoo http://localhost:9080/tcSoap/wsdl/com/ibm/tc/soap/

ResourceInformationService.wsdl getDCMObjectIdFromHostName sun-e3500-4

C. soapcli.cmd gazoo gazoo   http://localhost:9080/tcSoap/wsdl/com/ibm/tc/soap/

DataCenterModelInformationService.wsdl getObjectIdFromHostName sun-e3500-4

D. soapcli.cmd gazoo gazoo http://localhost:9080/tcSoap/wsdl/com/ibm/tc/soap/

DataCenterModelInformationService.wsdl getDCMObjectIdFromHostName sun-e3500-4

Answer: B

18. A manifest file for an automation package has several components.   What are three valid sections of the manifest file? (Choose three.)

A. workflows

B. java-plugins

C. device-models

D. dcm

E. post-install-workflows

F. logical-device-operations

Answer: CDE

19. Click the Exhibit button.

The Acme Corporation plans to roll out a new Internet web site to serve as a focal point for product information, customer service and direct sales of product. They have provided you with some basic information on what they wish to accomplish.

They want their website to be available 24/7 and to grow with customer demand. They anticipate a variable load with their online shopping application, as it varies based on the publishing cycle of printed ad campaigns and direct marketing email. The email campaign is supported by the SMTP server. The online shopping application is supported by the Web application server.

Acme's Web applications, Web application server, database, SMTP and Exchange servers are housed on one Bladecenter with 14 blades (4 PowerPC processors, 10   Xeon processors).

The Web server is currently hosted on one 2-way Xeon blade running Linux and Apache.

The Web Application server is currently hosted by one 2-way Xeon blade running Linux and Websphere Application Server.

The backend MySQL database is hosted on one PowerPC blade running Linux.

The SMTP server is hosted on one 2-way Xeon blade running Windows 2003.

The voicemail system is hosted by an SGI workstation running IRIX. The email and voicemail systems are integrated via a custom TAPI application that runs on the Windows 2003 Exchange Server.

They want to be able to scale their applications as demand grows without investing in additional resources. They also want to manage all their systems through IBM Tivoli Intelligent Orchestrator.

Currently most of the servers are built and maintained by Acme IT department. A standard build is used for all Linux and Windows 2003 servers. Acme corporate mail server is running Windows 2003/Exchange server. The SGI workstation, voicemail and custom TAPI application was installed and are supported by an outside vender.

Which element(s) of the customer's environment is a poor candidate for workflow automation? (Choose two.)
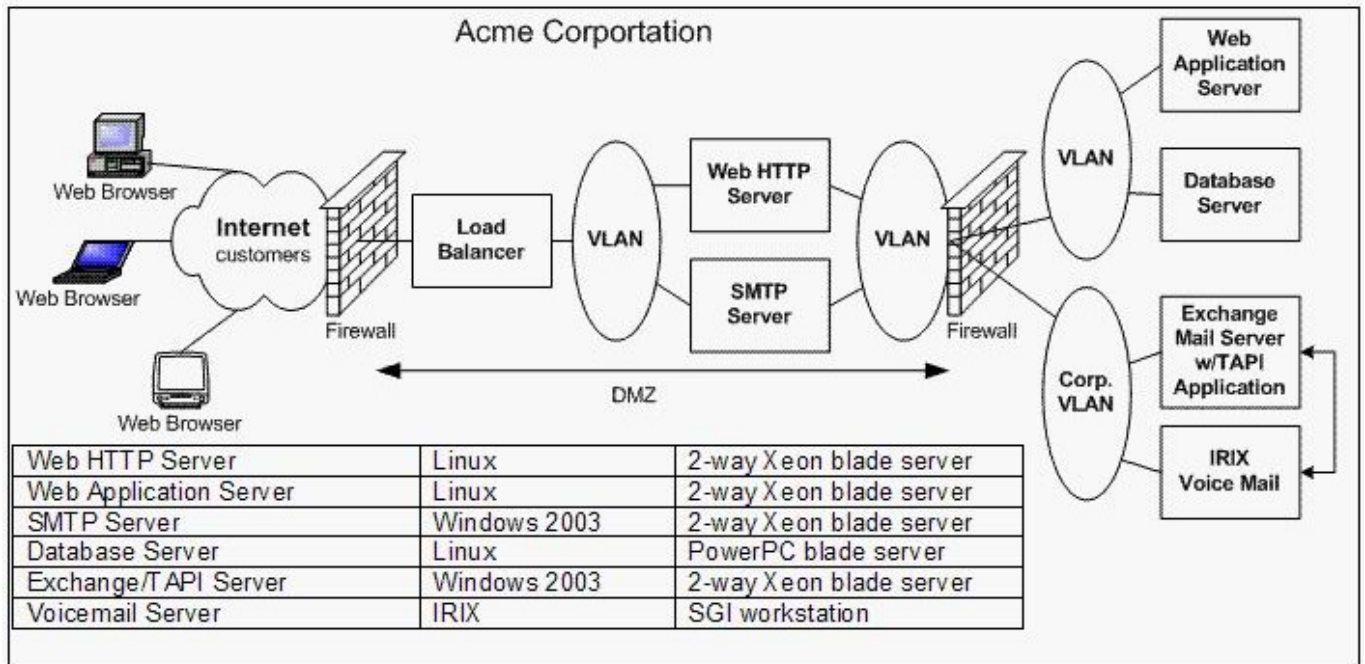
A. the MySQL database

B. the voicemail system

C. the online shopping application

D. the Exchange server

E. the web server

Answer: BD

20. You need to update a device-model. Before you can update the device-model, you must first uninstall the automation package containing the device-model definition. What are the two locations that identify the device models associated with a particular automation package? (Choose two.)

A. the automation package manifest file

B. the Device Models section of the GUI

C. the output of the dcmExport command

D. the output of a DCMQuery command of the device-model

E. the output of running a tc-driver-manager command

Answer: AE