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70-535

Architecting Microsoft Azure Solutions

Testlet 1

This is a case study. **Case studies are not timed separately. You can use as much exam time as you would like to complete each case.** However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answer and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study

To display the first question in this case study, click the **Next** button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an **All Information** tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the **Question** button to return to the question.

Background

Security

The security team at Tailspin Toys plans to eliminate legacy authentication methods that are in use, including NTLM and Windows pass-through authentication.

Tailspin Toys needs to share resources with several business partners. You are investigating options to securely share corporate data.

Tailspin Toys has several databases that contain personally identifiable information (PII). User access PII only through the Tailspin Toys e-commerce website.

You secure apps by using on-premises Active Directory Domain Services (AD DS) credentials or Microsoft SQL Server logins.

Apps

The Tailspin Toys e-commerce site is hosted on multiple on-premises virtual machines (VMs). The VM runs either Internet Information Server (IIS) or SQL Server 2012 depending on role. The site is published to the Internet by using a single endpoint that balances the load across web servers. The site does not encrypt traffic between database servers and web servers.

The Tailspin Toys Customer Analyzer app analyzes e-commerce transactions to identify customer buying patterns, and outputs recommended product sale pricing. The app runs large processing jobs that run for 75-120 minutes several times each day. The application development team plans to replace the current solution with a parallel processing solution that scales based on computing demands.

The Tailspin Toys Human Resources (HR) app is an in-house developed app that hosts sensitive employee data. The app uses SQL authentication for Role-Based Access Control (RBAC).

Problem statement

The Tailspin Toys IT Leadership Team plans to address deficiencies in access control, data security, performance, and availability requirements. All applications must be updated to meet any new standards that are defined.

The Tailspin Toys e-commerce site was recently targeted by a cyberattack. In the attack, account information was stolen from the customer database. Transactions that were in progress during the attack were not completed. Forensic investigation of the attack has revealed that the stolen customer data was captured in-transit from the database to a compromised web server.

The HR team reports that unauthorized IT employees can view sensitive employee data by using service or application accounts.

Business Requirements

Tailspin Toys e-commerce site

The business has requested that security and availability of the e-commerce site is improved to meet the following requirements.

- Communication between site components must be secured to stop data breaches. If servers are breached, the data must not be readable.
- The site must be highly available at each application tier, as well as the published endpoint.
- Customers must be able to authenticate to the e-commerce site with their existing social media accounts.

Tailspin Toys Customer Analyzer app

The business requires that processing time be reduced from 75-120 minutes to 5-15 minutes.

Tailspin Toys HR app

Only authorized employees and business partners are allowed to view sensitive employee data. HR has requested a mobile experience for end users.

Technical Requirements

Security

The security team has established the following requirements for role-separation and RBAC:

- Log on hours defined in AD DS must be enforced for users that access cloud resources.
- IT operations team members must be able to deploy and manage all resources in Azure, but must not be able to grant permissions to others.
- Application development team members must be able to deploy and manage Azure Web Apps.
- SQL database administrators must be able to deploy and manage SQL databases used by TailSpin Toys applications.
- Application support analysts must be able to manage resources for the application(s) for which they are responsible.
- Service desk analysts must be able to view service status and component settings.
- Role assignment should use the principle of least privilege.

Tailspin Toys e-commerce site

The application is currently using a pair of hardware load balancers behind a single published endpoint to load balance traffic. Customer data is hosted in a SQL Server 2012 database. Customer user accounts are stored in an AD DS instance.

The updated application and supporting infrastructure must:

- Provide high availability in the event of failure in a single Azure SQL Database instance.
- Allow secure web traffic on port 443 only.
- Enable customers to authentication with Facebook, Microsoft Live ID or other social media identities.
- Encrypt SQL data at-rest.
- Encrypt data in motion between back-end SQL database instances and web application instances.
- Prevent administrator and service accounts from viewing PII data.
- Mask account and PII data presented to end user.
- Minimize outage duration in event of an Azure datacenter failure.

- The site should scale automatically to meet customer demand.
- The site should continue to serve requests, even in the event of failure of an Azure datacenter.
- Optimize site response time by auto-directing to the closest datacenter based on customer's geographic location.

Operations must be able to deploy the solution using an Azure Resource Manager (ARM) template.

Tailspin Toys Customer Analyzer app

The app uses several compute-intensive tasks that create long-running requests to the system, processing large amounts of data. The app runs on two large VMs that are scaled to max capacity in the corporate datacenter. The VMs cannot be scaled up or out to meet processing demands.

The new solution must meet the following requirements:

- Schedule processing of a large amount of pricing data on an hourly basis.
- Provide parallel processing and scale-on-demand computing resources to provide additional capacity as required.
- Processing times must meet the 5-15 minute processing requirement.
- Use simultaneous compute nodes to enable high performance computing for analysis. ▪

Minimal administrative efforts and custom development.

Operations must be able to deploy the solution using an Azure Resource Manager (ARM) template.

Tailspin Toys HR app

The solution architecture must meet the following requirements:

- Integrate with Azure Active Directory (Azure AD).
- Encrypt data at rest and in-transit.
- Limit access based on location, filtered by IP addresses for corporate sites and authorized business partners. ▪

Mask data presented to employees.

- Must be available on mobile devices.

Operations must be able to deploy the solution using an Azure Resource Manager (ARM) template.

QUESTION 1

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to recommend a solution architecture for the Tailspin Toys e-commerce website for app tier, data tier, and user authentication.

Solution:

- Mobile App based on Azure App Service
- App data stored in DocumentDB
- Authentication provided through Azure AD business-to-business (B2B)
- Solution deployed to multiple Azure regional datacenters ▪

Load balancing with a virtual appliance

Does the solution meet the goal?

- A. Yes
- B. No

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

QUESTION 2

You need to select Azure components to meet site performance and availability requirements for the Tailspin Toys e-commerce site.

Which components should you use?

- A. Azure Batch and Azure Traffic Manager
- B. Virtual Machine Scale Set and Azure Load Balancer
- C. Azure App Service and Azure Traffic Manager
- D. Azure Virtual Machines and Azure Load Balancer
- E. Azure App Service and Azure Load Balancer



Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

You can use Azure Traffic Manager to control how requests from web clients are distributed to apps in Azure App Service. When App Service endpoints are added to an Azure Traffic Manager profile, Azure Traffic Manager keeps track of the status of your App Service apps (running, stopped, or deleted) so that it can decide which of those endpoints should receive traffic.

Scenario: The site must be highly available at each application tier, as well as the published endpoint.

Reference: <https://docs.microsoft.com/en-us/azure/app-service/web-sites-traffic-manager>

QUESTION 3

You need to select an Azure compute provider for the Tailspin Toys Customer Analyzer app.

What should you use?



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- A. Virtual Machine Scale Sets (VMSS)
- B. Azure Virtual Machines
- C. Azure Logic Apps
- D. Azure Functions

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Azure virtual machine scale sets let you create and manage a group of identical, load balanced VMs. The number of VM instances can automatically increase or decrease in response to demand or a defined schedule. Scale sets provide high availability to your applications, and allow you to centrally manage, configure, and update a large number of VMs. With virtual machine scale sets, you can build large-scale services for areas such as compute, big data, and container workloads.

Scenario: The Tailspin Toys Customer Analyzer app analyzes e-commerce transactions to identify customer buying patterns, and outputs recommended product sale pricing. The app runs large processing jobs that run for 75-120 minutes several times each day. The application development team plans to replace the current solution with a parallel processing solution that scales based on computing demands.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/overview>

QUESTION 4

You need to select an Azure identity provider for the Tailspin Toys e-commerce website.

What should you use?

- A. Azure AD business-to-consumer (B2C)
- B. Azure AD business-to-business (B2B)
- C. Microsoft account



D. Azure AD

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Azure Active Directory (Azure AD) B2C is an identity management service that enables you to customize and control how customers sign up, sign in, and manage their profiles when using your applications. This includes applications developed for iOS, Android, and .NET, among others. Azure AD B2C enables these actions while protecting your customer identities at the same time.

For instance, a B2C sign-up policy allows you to control behaviors by configuring the following settings:
Social accounts that the customer can use to sign up for the application

Scenario: Customers must be able to authenticate to the e-commerce site with their existing social media accounts.

Reference: <https://docs.microsoft.com/en-us/azure/active-directory-b2c/active-directory-b2c-overview>

QUESTION 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to recommend a solution architecture for the Tailspin Toys e-commerce website for app tier, data tier, and user authentication.

Solution:

- Web site based on Azure App Service
- App data stored in Azure SQL Database
- Authentication provided through Azure AD business-to-business (B2B)
- Solution deployed to multiple Azure regional datacenters
- Load balancing with Azure Traffic Manager

Does the solution meet the goal?

A. Yes

B. No

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Authentication should be provided through Azure AD business-to-consumer (B2C), not through Azure AD business-to-business (B2B).



Testlet 1

Background

Overview

Woodgrove Bank has 20 regional offices and operates 1,500 branch office locations. Each regional office hosts the servers, infrastructure, and applications that support that region.

Woodgrove Bank plans to move all of their on-premises resources to Azure, including virtual machine (VM)-based, line-of-business workloads, and SQL databases. You are the owner of the Azure subscription for Woodgrove Bank. Your team is using Git repositories hosted on GitHub for source control.

Security

Currently, Woodgrove Bank's Computer Security Incident Response Team (CSIRT) has a problem investigating security issues due to the lack of security intelligence integrated with their current incident response tools. This lack of integration introduces a problem during the detection (too many false positives), assessment, and diagnose stages. You decide to use Azure Security Center to help address this problem.

Woodgrove Bank has several apps with regulated data such as Personally Identifiable Information (PII) that require a higher level of security. All apps are currently secured by using an on-premises Active Directory Domain Services (AD DS). The company depends on following mission-critical apps: WGBLoanMaster, WGBLeaseLeader, and WGBCreditCruncher apps. You plan to move each of these apps to Azure as part of an app migration project.

Apps

The WGBLoanMaster app has been audited for transaction loss. Many transactions have been lost in processing and monetary write-offs have cost the bank. The app runs on two VMs that include several public endpoints.

The WGBLeaseLeader app has been audited for several data breaches. The app includes a SQL Server database and a web-based portal. The portal uses an ASP.NET Web API function to generate a monthly aggregate report from the database.

The WGBCreditCruncher app runs on a VM and is load balanced at the network level. The app includes several stateless components and must accommodate scaling of increased credit processing. The app runs on a nightly basis to process credit transactions that are batched during the day. The app includes a webbased portal where customers can check their credit information. A mobile version of the app allows users to upload check images.

Your team is using Git repositories for source control. The repositories are hosted on GitHub.

Business Requirements

WGBLoanMaster app

The app audit revealed a need for zero transaction loss. The business is losing money due to the app losing and not processing loan information. In addition, transactions fail to process after running for a long time. The business has requested the aggregation processing to be scheduled for 01:00 to prevent system slowdown.

WGBLeaseLeader app

The app should be secured to stop data breaches. If the data is breached, it must not be readable. The app is continuing to see increased volume and the business does not want the issues presented in the WGBLoanMaster app. Transaction loss is unacceptable, and although the lease monetary amounts are smaller than loans, they are still an important profit center for Woodgrove Bank. The business would also like the monthly report to be automatically generated on the first of the month. Currently, a user must log in to the portal and click a button to generate the report.

WGBCreditCruncher app

The web-based portal area of the app must allow users to sign in with their Facebook credentials. The bank would like to allow this feature to enable more users to check their credit within the app.

Woodgrove Bank needs to develop a new financial risk moderating feature that they can include in the WGBCreditCruncher app. The financial risk modeling feature has not been developed due to costs associated with processing, transforming, and analyzing the large volumes of data that are collected. You need to find a way to implement parallel processing to ensure that the feature runs efficiently, reliably and quickly. The feature must scale based on computing demand to process the large volumes of data and output several financial risk models.

Technical Requirements

WGBLoanMaster app

The app uses several compute-intensive tasks that create long-running requests to the system. The app is critical to the business and must be scalable to increased loan processing demands. The VMs that run the app include a Windows Task Scheduler task that aggregates loan information from the app to send to a third party. This task runs a console app on the VM.

The app requires a messaging system to handle transaction processing. The messaging system must meet the following requirements:

- Allow messages to reside in the queue for up to a month
- Be able to publish and consume batches of messages
- Allow full integration with the Windows Communication Foundation (WCF) communication stack
- Provide a role-based access model to the queues, including different permissions for senders and receivers

You develop an Azure Resource Manager (ARM) template to deploy the VMs used to support the app. The template must be deployed to a new resource group and you must validate your deployment settings before creating actual resources.

WGBLeaseLeader app

The app must use Azure SQL Databases as a replacement to the current Microsoft SQL Server environment. The monthly report must be automatically generated.

The app requires a messaging system to handle transaction processing. The messaging system must meet the following requirements:

- Require server-side logs of all of the transactions run against your queues ▪
- Track progress of a message within the queue

- Process the messages within 7 days
- Provide a differing timeout value per message

WGBCreditCruncher app

The app must:

- Secure inbound and outbound traffic.
- Analyze inbound network traffic for vulnerabilities.
- Use an instance-level public IP and allow web traffic on port 443 only.
- Upgrade the portal to a Single Page Application (SPA) that uses JavaScript, Azure Active Directory (Azure AD), and the OAuth 2.0 implicit authorization grant to secure the Web API back end.
- Cache authentication and host the Web API back end using the Open Web Interface for .NET (OWIN) middleware.
- Immediately compress check images received from the mobile web app.
- Schedule processing of the batched credit transactions on a nightly basis.
- Provide parallel processing and scalable computing resources to output financial risk models.
- Use simultaneous compute nodes to enable high performance computing and updating of the financial risk models.
-

Key security areas

Name	Description
Area1	Uses Role-Based Access Control (RBAC)
Area2	Uses Azure Monitoring Agent (ASMAgentLauncher.exe) and the Azure Security Monitoring extension (ASMMonitoringAgent.exe) and is a main cost of Azure Security Center
Area3	Customizes your company's security requirements and the type of apps or sensitivity of the data. Propagates to all resource groups within the Azure subscription
Area4	Allows you to detect assess, and diagnose attacks
Area5	Prevents and detects future security changes. Changes to the environment are automatically enabled as resources are added

Software releases

The business must receive notifications through several internal systems when a release is published from the development team.

The team's GitHub repository must run a script, written in F#, in response to a release. The script must alert several applications and systems that a release has been published.

QUESTION 1

You need to ensure that the repository runs the script when new software is released.

Which technology should you use?

- A. Azure Function
- B. Azure App Service Logic App
- C. Azure App Service API App
- D. Azure WebJob

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Using Azure Functions with F#. Azure Functions is a solution for easily running small pieces of code, or "functions," in the cloud. You can write just the code you need for the problem at hand, without worrying about a whole application or the infrastructure to run it. Your functions are connected to events in Azure storage and other cloud-hosted resources. Data flows into your F# functions via function arguments. You can use your development language of choice, trusting Azure to scale as needed.

References: <https://docs.microsoft.com/en-us/dotnet/fsharp/using-fsharp-on-azure/>

QUESTION 2

You need to support loan processing for the WGBLoanMaster app.

What should you use?



<https://vceplus.com/>

- A. Azure Service Fabric
- B. Azure Queue Storage
- C. Azure Service Bus Queues
- D. Azure Event Hubs

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Whether an application or service runs in the cloud or on premises, it often needs to interact with other applications or services. To provide a broadly useful way to do this, Microsoft Azure offers Service Bus. There is also a requirement for a queue in the scenario.

From Scenario: The WGBLoanMaster app has been audited for transaction loss. Many transactions have been lost in processing and monetary write-offs have cost the bank. The app runs on two VMs that include several public endpoints.

The app requires a messaging system to handle transaction processing. The messaging system must meet the following requirements:

- Allow messages to reside in the queue for up to a month
- Be able to publish and consume batches of messages
- Allow full integration with the Windows Communication Foundation (WCF) communication stack
- Provide a role-based access model to the queues, including different permissions for senders and receivers

References: <https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-fundamentals-hybrid-solutions>

QUESTION 3

You need to generate the report for the WGBLeaseLeader app.

Which Azure service should you use?

- A. Azure Data Lake Store
- B. Azure WebJob
- C. Azure Service Bus Queue
- D. Azure Stream Analytics

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

WebJobs is a feature of Azure App Service that enables you to run a program or script in the same context as a web app, API app, or mobile app. There is no additional cost to use WebJobs.

An Azure WebJob can be either continuous or triggered. In the latter case, it starts only when triggered manually or on a schedule.

From scenario: The WGBLeaseLeader app should be secured to stop data breaches. If the data is breached, it must not be readable.

The business would also like the monthly report to be automatically generated on the first of the month. Currently, a user must log in to the portal and click a button to generate the report.

References: <https://docs.microsoft.com/en-us/azure/app-service/web-sites-create-web-jobs>

QUESTION 4

You need to implement the loan aggregation process for the WGBLoanMaster app.

Which technology should you use?

- A. Azure virtual machine
- B. Azure Batch
- C. Azure Cloud Service worker role
- D. Azure WebJob

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Use Batch to run large-scale parallel and high-performance computing (HPC) applications efficiently in the cloud. Define the Azure compute resources to execute your applications in parallel or at scale without manually configuring or managing infrastructure. Schedule compute-intensive tasks and dynamically add or remove compute resources based on your requirements.

Scenario: The app requires a messaging system to handle transaction processing. The messaging system must meet the following requirements: ▪

Be able to publish and consume batches of messages

References: <https://docs.microsoft.com/en-us/azure/batch/>

QUESTION 5

DRAG DROP

You are evaluating the architecture for the WGBCreditCruncher app.

You need to implement an Azure service to process each portion of the app data.

For each type of app data, what should you implement? To answer, drag the appropriate Azure services to the correct app data types. Each Azure service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Azure services

Azure Batch

Azure WebJob

Azure Scheduler

Azure IoT Hub

Azure DNS

Answer area

App data
Check images

Credit transactions

Financial risk models

Azure service

Azure service

Azure service

Azure service

Correct Answer:

Azure services

Azure IoT Hub

Azure DNS



Answer area

App data

Check images

Credit transactions

Financial risk models

Azure service

Azure WebJob

Azure Scheduler

Azure Batch



Section: [none]

Explanation

Explanation/Reference:

Explanation:

Check images: Azure WebJob

WebJobs is a feature of Azure App Service that enables you to run a program or script in the same context as a web app, API app, or mobile app.

Scenario: A mobile version of the app allows users to upload check images.

Credit transactions: Azure Scheduler

Scenario: The app runs on a nightly basis to process credit transactions that are batched during the day.

Financial risk models: Azure Batch

Scenario: Woodgrove Bank needs to develop a new financial risk moderating feature that they can include in the WGBCreditCruncher app. The financial risk modeling feature has not been developed due to costs associated with processing, transforming, and analyzing the large volumes of data that are collected. You need to find a way to implement parallel processing to ensure that the feature runs efficiently, reliably and quickly. The feature must scale based on computing demand to process the large volumes of data and output several financial risk models.

Incorrect Answers:

Not IoT hub: IoT Hub is a managed service, hosted in the cloud, that acts as a central message hub for bi-directional communication between your IoT application and the devices it manages.

Not DNS: The Domain Name System, or DNS, is responsible for translating (or resolving) a website or service name to its IP address. Azure DNS is a hosting service for DNS domains, providing name resolution using Microsoft Azure infrastructure.

References: <https://docs.microsoft.com/en-us/azure/app-service/web-sites-create-web-jobs>



Testlet 1

Overview

VanArsdel, Ltd. builds skyscrapers, subways, and bridges.

VanArsdel is a leader in using technology to do construction better.

VanArsdel employees are able to use their own mobile devices for work activities because the company recognizes that this usage enables employee productivity.

Employees also access Software as a Service (SaaS) applications, including DocuSign, Dropbox, and Citrix.

The company continues to evaluate and adopt more SaaS applications for its business.

VanArsdel uses Azure Active Directory (AD) to authenticate its employees, as well as Multi-Factor Authentication (MFA). Management enjoys the ease with which MFA can be enabled and disabled for employees who use cloud-based services.

VanArsdel's on-premises directory contains a single forest.

Helpdesk:

VanArsdel creates a helpdesk group to assist its employees. The company sends email messages to all its employees about the helpdesk group and how to contact it. Configuring employee access for SaaS applications is often a time-consuming task.

It is not always obvious to the helpdesk group which users should be given access to which SaaS applications. The helpdesk group must respond to many phone calls and email messages to solve this problem, which takes up valuable time.

The helpdesk group is unable to meet the needs of VanArsdel's employees.

However, many employees do not work with the helpdesk group to solve their access problems. Instead, these employees contact their co-workers or managers to find someone who can help them. Also, new employees are not always told to contact the helpdesk group for access problems. Some employees report that they cannot see the applications in the Access Panel that they have access to. Some employees report that they must re-enter their passwords when they access cloud applications, even though they have already authenticated.

Bring your own device (BYOD):

VanArsdel wants to continue to support users and their mobile and personal devices, but the company is concerned about how to protect corporate assets that are stored on these devices. The company does not have a strategy to ensure that its data is removed from the devices when employees leave the company.

Customer Support

VanArsdel wants a mobile app for customer profile registration and feedback.

The company would like to keep track of all its previous, current, and future customers worldwide. A profile system using third-party authentication is required as well as feedback and support sections for the mobile app.

Migration:

VanArsdel plans to migrate several virtual machine (VM) workloads into Azure. They also plan to extend their on-premises Active Directory into Azure for mobile app authentication.

Business Requirements

Hybrid Solution:

- A single account and credentials for both on-premises and cloud applications Certain applications that are hosted both in Azure and on-site must be accessible to both VanArsdel employees and partners.
 - The service level agreement (SLA) for the solution requires an uptime of 99.9%.
- The partners all use Hotmail.com email addresses.

Mobile App:

- VanArsdel requires a mobile app for project managers on construction job sites.
 - The mobile app has the following requirements:
 - The app must display partner information.
 - The app must alert project managers when changes to the partner information occur.
 - The app must display project information including an image gallery to view pictures of construction projects.
- Project managers must be able to access the information remotely and securely.

Security:

- VanArsdel must control access to its resources to ensure sensitive services and information are accessible only by authorized users and/or managed devices.
- Employees must be able to securely share data, based on corporate policies, with other VanArsdel employees and with partners who are located on construction job sites.
- VanArsdel management does NOT want to create and manage user accounts for partners.

Technical

Requirements

Architecture:

- VanArsdel requires a non-centralized stateless architecture for data and services where application, data, and computing power are at the logical extremes of the network.
- VanArsdel requires separation of CPU storage and SQL services

Data Storage:

- VanArsdel needs a solution to reduce the number of operations on the contractor information table. Currently, data transfer rates are excessive, and queue length for read/write operations affects performance.
 - A mobile service that is used to access contractor information must have automatically scalable, structured storage
- Images must be stored in an automatically scalable, unstructured form.

Mobile Apps:

- VanArsdel mobile app must authenticate employees to the company's Active Directory. Event-triggered alerts must be pushed to mobile apps by using a custom Node.js script.

- The customer support app should use an identity provider that is configured by using the Access Control Service for current profile registration and authentication.
- The customer support team will adopt future identity providers that are configured through Access Control Service.

Security:

- Active Directory Federated Server (AD FS) will be used to extend AD into Azure. Helpdesk administrators must have access to only the groups of Azure resources they are responsible for.
- Azure administration will be performed by a separate group. IT administrative overhead must be minimized.
- Permissions must be assigned by using Role Based Access Control (RBAC). Line of business applications must be accessed securely.

QUESTION 1

You need to assign permissions for the Virtual Machine workloads that you migrate to Azure. The solution must use the principal of least privileges.

What should you do?

- A. Create all VMs in the cloud service named Group1 and then connect to the Azure subscription.
Run the following Windows PowerShell command:
New-AzureRoleAssignment-Mail user1@vanarsdeltd.com -RoleDefinitionName Contributor-ResoureeGroupName group1
- B. In the Azure portal, select an individual virtual machine and add an owner.
- C. In the Azure portal, assign read permission to the user at the subscription level.
- D. Create each VM in a separate cloud service and then connect to the Azure subscription. Run the following Windows PowerShell command: **Get-AzureVM | New-AzureRoleAssignment-Mail user1@vanarsdeltd.com -RoleDefinitionName Contributor**

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Scenario: Permissions must be assigned by using Role Based Access Control (RBAC).

Role-Based access control (RBAC) in the Azure Portal and Azure Resource Management API allows you to manage access to your subscription at a fine-grained level. With this feature, you can grant access for Active Directory users, groups, or service principals by assigning some roles to them at a particular scope.

Create a role assignment.

Use New-AzureRoleAssignment to create a role assignment.

Example: This will create a role assignment for a group at a resource group level.

PS C:\> New-AzureRoleAssignment -ObjectId <group object ID> -RoleDefinitionName Reader ResourceGroupName group1

References: <https://azure.microsoft.com/en-gb/documentation/articles/role-based-access-control-powershell/>

QUESTION 2

You need to design the system that alerts project managers to data changes in the contractor information app.

Which service should you use?

- A. Azure Mobile Service
- B. Azure Service Bus Message Queueing
- C. Azure Queue Messaging
- D. Azure Notification Hub

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Scenario:

- Mobile Apps: Event-triggered alerts must be pushed to mobile apps by using a custom Node.js script. ▪

The service level agreement (SLA) for the solution requires an uptime of 99.9%

If you are already using Azure Storage Blobs or Tables and you start using queues, you are guaranteed 99.9% availability. If you use Blobs or Tables with Service Bus queues, you will have lower availability.

Note: Microsoft Azure supports two types of queue mechanisms: Azure Queues and Service Bus Queues.

- Azure Queues, which are part of the Azure storage infrastructure, feature a simple REST- based Get/Put/Ppeek interface, providing reliable, persistent messaging within and between services.
- Service Bus queues are part of a broader Azure messaging infrastructure that supports queuing as well as publish/subscribe, Web service remoting, and integration patterns.

References: <https://msdn.microsoft.com/en-us/library/azure/hh767287.aspx>

QUESTION 3

You need to recommend a solution that allows partners to authenticate.

Which solution should you recommend?



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- A. Configure the federation provider to trust social identity providers
- B. Configure the federation provider to use the Azure Access Control service
- C. Create a new directory in Azure Active Directory and create a user account for the partner.
- D. Create an account on the VanArsdel domain for the partner and send an email message that contains the password to the partner.

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Scenario: The partners all use Hotmail.com email addresses.

In Microsoft Azure Active Directory Access Control (also known as Access Control Service or ACS), an identity provider is a service that authenticates user or client identities and issues security tokens that ACS consumes.

The ACS Management Portal provides built-in support for configuring Windows Live ID as an ACS Identity Provider.

Incorrect Answers:

C, D: VanArsdel management does NOT want to create and manage user accounts for partners.

References: <https://msdn.microsoft.com/en-us/library/azure/gg185971.aspx>

QUESTION 4

You are designing a plan to deploy a new application to Azure.

The solution must provide a single sign-on experience for users.

You need to recommend an authentication type.



Which authentication type should you recommend?

- A. SAML credential tokens
- B. Azure managed access keys
- C. Windows Authentication
- D. MS-CHAP

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

A Microsoft cloud service administrator who wants to provide their Azure Active Directory (AD) users with sign-on validation can use a SAML 2.0 compliant SP-Lite profile based Identity Provider as their preferred Security Token Service (STS) / identity provider. This is useful where the solution implementer already has a user directory and password store on-premises that can be accessed using SAML 2.0. This existing user directory can be used for sign-on to Office 365 and other Azure AD-secured resources.

References: <https://msdn.microsoft.com/en-us/library/azure/dn641269.aspx?f=255&MSPPError=-2147217396>

QUESTION 5

You need to prepare the implementation of data storage for the contractor information app.

What should you?

- A. Create a storage account and implement multiple data partitions.
- B. Create a Cloud Service and a Mobile Service. Implement Entity Group transactions.
- C. Create a Cloud Service and a Deployment group. Implement Entity Group transactions.
- D. Create a Deployment group and a Mobile Service. Implement multiple data partitions.

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Scenario:

- VanArsdel needs a solution to reduce the number of operations on the contractor information table. Currently, data transfer rates are excessive, and queue length for read/write operations affects performance.
- A mobile service that is used to access contractor information must have automatically scalable, structured storage

The basic unit of deployment and scale in Azure is the Cloud Service.

References: <https://msdn.microsoft.com/en-us/library/azure/dd894038.aspx>

QUESTION 6

You need to ensure that users do not need to re-enter their passwords after they authenticate to cloud applications for the first time.

What should you do?

- A. Enable Microsoft Account authentication.
- B. Set up a virtual private network (VPN) connection between the VanArsdel premises and Azure datacenter.
- C. Set up a Windows Active Directory domain controller in Azure VM.
- D. Implement Integrated Windows authentication.
- E. Deploy ExpressRoute.
- F. Configure Azure Active Directory Sync to use single sign-on (SSO).

Correct Answer: D

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Single sign-on (SSO) is a property of access control of multiple related, but independent software systems. With this property a user logs in once and gains access to all systems without being prompted to log in again at each of them.

References: http://en.wikipedia.org/wiki/Single_sign-on

QUESTION 7

HOTSPOT

You need to design the contractor information app.

What should you recommend? To answer, select the appropriate options in the answer area.

Hot Area:



Answer Area

You must authenticate employees to the contractor information app.

Azure Password Sync
Azure Mobile Services
Azure Active Directory
Azure Active Directory Sync

You must synchronize data with the contractor information app.

Azure Password Sync
Azure Mobile Services
Azure Active Directory
Azure Active Directory Sync

Correct Answer:

Answer Area

You must authenticate employees to the contractor information app.

Azure Password Sync
Azure Mobile Services
Azure Active Directory
Azure Active Directory Sync

You must synchronize data with the contractor information app.

Azure Password Sync
Azure Mobile Services
Azure Active Directory
Azure Active Directory Sync

Section: [none]

Explanation

Explanation/Reference:

Explanation:

They also plan to extend their on-premises Active Directory into Azure for mobile app authentication. VanArsdel mobile app must authenticate employees to the company's Active Directory.

References: <https://docs.microsoft.com/en-us/azure/app-service-mobile/app-service-mobile-value-prop>

QUESTION 8

You need to recommend a business continuity and disaster recovery solution for all the existing line of business applications.

What should you recommend?

- A. Configure ExpressRoute to enable migration to Azure
- B. Migrate the virtual machines to the Hyper-V cluster and enable Hyper-V replica
- C. Create new virtual machines in Azure and migrate the line of business application to the VMs. Migrate any backend databases to SQL Database
- D. Install the Azure Backup agent on the virtual machines

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Testlet 1



Background

Overview

Lucerne Publishing creates, stores, and delivers online media for advertising companies. This media is streamed to computers by using the web, and to mobile devices around the world by using native applications. The company currently supports the iOS, Android, and Windows Phone 8.1 platform.

Lucerne Publishing uses proprietary software to manage its media workflow. This software has reached the end of its lifecycle. The company plans to move its media workflows to the cloud. Lucerne Publishing provides access to its customers, who are third-party companies, so that they can download, upload, search, and index media that is stored on Lucerne Publishing servers.

Apps and Applications

Lucerne Publishing develops the applications that customers use to deliver media. The company currently provides the following media delivery applications: ▪

- Lucerne Media W - a web application that delivers media by using any browser
- Lucerne Media M - a mobile app that delivers media by using Windows Phone 8.1
- Lucerne Media A - a mobile app that delivers media by using an iOS device
- Lucerne Media N - a mobile app that delivers media by using an Android device
- Lucerne Media D - a desktop client application that customer's install on their local computer

Business Requirements

Lucerne Publishing's customers and their consumers have the following requirements:

- Access to media must be time-constricted once media is delivered to a consumer. The time required to download media to mobile devices must be minimized. Customers must have 24-hour access to media downloads regardless of their location or time zone.
- Lucerne Publishing must be able to monitor the performance and usage of its customer-facing app.
- Lucerne Publishing wants to make its asset catalog searchable without requiring a database redesign.
- Customers must be able to access all data by using a web application. They must also be able to access data by using a mobile app that is provided by Lucerne Publishing.
- Customers must be able to search for media assets by key words and media type. Lucerne Publishing wants to move the asset catalog database to the cloud without formatting the source data.

Other Requirements

Development

Code and current development documents must be backed up at all times. All solutions must be automatically built and deployed to Azure when code is checked in to source control.

Network Optimization

Lucerne Publishing has a .NET web application that runs on Azure. The web application analyzes storage and the distribution of its media assets. It needs to monitor the utilization of the web application. Ultimately, Lucerne Publishing hopes to cut its costs by reducing data replication without sacrificing its quality of service to its customers. The solution has the following requirements:

- Optimize the storage location and amount of duplication of media.
- Vary several parameters including the number of data nodes and the distance from node to customers.

Minimize network bandwidth.

- Lucerne Publishing wants be notified of exceptions in the web application.

Technical Requirements

Data Mining

Lucerne Publishing constantly mines its data to identify customer patterns. The company plans to replace the existing on-premises cluster with a cloud-based solution. Lucerne Publishing has the following requirements:

Virtual machines:

- The data mining solution must support the use of hundreds to thousands of processing cores.
- Minimize the number of virtual machines by using more powerful virtual machines.
- Each virtual machine must always have eight or more processor cores available.
- Allow the number of processor cores dedicated to an analysis to grow and shrink automatically based on the demand of the analysis.

Virtual machines must use remote memory direct access to improve performance.

Task scheduling:

- The solution must automatically schedule jobs.
- The scheduler must distribute the jobs based on the demand and available resources.

Data analysis results:

The solution must provide a web service that allows applications to access the results of analyses.

Other Requirements**Feature Support**

- Ad copy data must be searchable in full text.
- Ad copy data must be indexed to optimize search speed. Media metadata must be stored in Azure Table storage. Media files must be stored in Azure BLOB storage. The customer-facing website must have access to all ad copy and media. The customer-facing website must automatically scale and replicate to locations around the world.
- Media and data must be replicated around the world to decrease the latency of data transfers. Media uploads must have fast data transfer rates (low latency) without the need to upload the data offline.

Security

Customer access must be managed by using Active Directory. Media files must be encrypted by using the PlayReady encryption method. Customers must be able to upload media quickly and securely over a private connection with no opportunity for internet snooping.

QUESTION 1

You need to ensure that the website scales.

What should you do?

- A. Deploy Traffic Manager and configure it to route user traffic to specified endpoints to other Azure datacenters.



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- B. Enter multiple DNS entries in each virtual network to route requests to other Azure datacenters.
- C. Set up a new Azure datacenter to Azure datacenter VPN to enable the solution to communicate across regions.
- D. Use a virtual network to route network traffic in a single Azure datacenter.

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Azure Traffic Manager: Traffic Manager allows you to load balance incoming traffic across multiple, hosted Azure services. You can load balance traffic for services running in the same datacenter or across different datacenters around the world.

By effectively managing traffic, you can ensure high performance, availability, and resiliency for your applications.

References: <https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

QUESTION 2

You need to analyze Lucerne's performance monitoring solution.

Which three applications should you monitor? Each correct answer presents a complete solution.

- A. The Lucerne Media-D application
- B. The data mining application
- C. The Lucerne Media-W application
- D. The Lucerne Media-M app
- E. The Lucerne Media-N app

Correct Answer: CDE

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Monitor the web application and the mobile apps.

C: Lucerne Media W - a web application that delivers media by using any browser

D: Lucerne Media M - a mobile app that delivers media by using Windows Phone 8.1

E: Lucerne Media N - a mobile app that delivers media by using an Android device

Scenario:

- Lucerne Publishing must be able to monitor the performance and usage of its customer-facing app.
- Customers must be able to access all data by using a web application. They must also be able to access data by using a mobile app that is provided by Lucerne Publishing.

QUESTION 3

You need to configure the deployment of the storage analysis application. What should you do?

- A. Create a new Mobile Service.
- B. Configure the deployment from source control.
- C. Add a new deployment slot.



D. Turn on continuous integration.

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Scenario: Data analysis results:

The solution must provide a web service that allows applications to access the results of analyses.

QUESTION 4

You need to recommend an appropriate solution for the data mining requirements.

Which solution should you recommend?

- A. Design a schedule process that allocates tasks to multiple virtual machines, and use the Azure Portal to create new VMs as needed.
- B. Use Azure HPC Scheduler Tools to schedule jobs and automate scaling of virtual machines.
- C. Use Traffic Manager to allocate tasks to multiple virtual machines, and use the Azure Portal to spin up new virtual machines as needed.
- D. Use Windows Server HPC Pack on-premises to schedule jobs and automate scaling of virtual machines in Azure.

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

B: Azure HPC provides Virtual Machines with RDMA and 8 or more processor cores.

Incorrect Answers:

A, C: Involves manually scaling. Requirements are for automatic scaling - "Allow the number of processor cores dedicated to an analysis to grow and shrink automatically based on the demand of the analysis."

D: Is an on-premises solution. - "The company plans to replace the existing on-premises cluster with a cloud-based solution."

Requirements: <https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-a8-a9-a10-a11-specs/>

Testlet 1

Background

Overview

Northwind Electric Cars is the premier provider of private, low-cost transportation in Denver. Northwind drivers are company employees who work together as a team. The founding partners believe that by hiring their drivers as employees, their drivers focus on providing a great customer experience. Northwind Electric Cars has a reputation for offering fast, reliable, and friendly service, due largely to their extensive network of drivers and their proprietary dispatching software named NorthRide.

Northwind Electric Cars drivers depend on frequent, automatic updates for the NorthRide mobile app. The Northwind management team is concerned about unplanned system downtime and slow connection speeds caused by high usage. Additionally, Northwind's in-house data storage solution is unsustainable because of the new influx of customer data that is retained. Data backups are made periodically on DVDs and stored on-premises at corporate headquarters.

Apps

NorthRide App

Northwind drivers use the NorthRide app to meet customer pickup requests. The app uses a GPS transponder in each Northwind vehicle and Bing Maps APIs to monitor the location of each vehicle in the fleet in real time. NorthRide allows Northwind dispatchers to optimize their driver coverage throughout the city.

When new customers call, the dispatcher enters their pickup locations into NorthRide. NorthRide identifies the closest available driver. The dispatcher then contacts the driver with the pick-up details. This process usually results in a pick-up time that is far faster than the industry average. Drivers use NorthRide to track the number of miles they drive and the number of customers they transport. Drivers also track their progress towards their established goals, which are measured by using key performance indicators (KPIs).

NorthRide App 2.0

Northwind Electric Cars is growing quickly. New callers often wait for their calls to be answered because the dispatchers are contacting their drivers to arrange pickups for other customers.

To support the growth of the business, Northwind's development team completes an overhaul of the NorthRide system that it has named NorthRide 2.0. When a dispatcher enters a customer's pickup location, the address and driving directions are automatically sent to the driver who is closest to the customer's pickup location.

Drivers indicate their availability on the NorthRide mobile app and can view progress towards their KPI's in real time. Drivers can also record customer ratings and feedback for each pickup.

Business Requirements

Apps

NorthRideFinder App

Northwind Electric Cars needs a customer-facing website and mobile app that allows customers to schedule pickups. Customers should also be able to create profiles that will help ensure the customer gets a ride faster by storing customer information.

Predictor App

Northwind Electric Cars needs a new solution named Predictor. Predictor is an employee- facing mobile app. The app predicts periods of high usage and popular pickup locations and provides various ways to view this predictive data. Northwind uses this information to better distribute its drivers. Northwind wants to use the latest Azure technology to create this solution.

Other Requirements

- On-premises data must be constantly backed up.
- Mobile data must be protected from loss, even if connectivity with the backend is lost.
- Dispatch offices need to have seamless access to both their primary data center and the applications and services that are hosted in the Azure cloud.

Connectivity needs to be redundant to on-premises and cloud services, while providing a way for each dispatch office to continue to operate even if one or all of the connection options fail. The management team requires that operational data is accessible 24/7 from any office location. **Technical Requirements**

Apps and Website

NorthRide / NorthRideFinder Apps:

- The solution must support on-premises and Azure data storage.
- The solution must scale as necessary based on the current number of concurrent users.
- Customer pickup requests from NorthRideFinder must be asynchronous.
- The customer pickup request system will be high in volume, and each request will have a short life span.
- Data for NorthRideFinder must be protected during a loss of connectivity.
- NorthRide users must authenticate to the company's Azure Active Directory.

Northwind Public Website

- The customer website must use a WebJob to process profile images into thumbnails ▪

The customer website must be developed with lowest cost and difficulty in mind.

- The customer website must automatically scale to minimize response times for customers. **Other**

Requirements

Data Storage:

- The data storage must interface with an on-premises Microsoft SQL backend database.
- A disaster recovery system needs to be in place for large amounts of data that will backup to Azure.
- Backups must be fully automated and managed the Azure Management Portal.
- The recovery system for company data must use a hybrid solution to back up both the on-premises Microsoft SQL backend and any Azure storage.

Predictive Routing:

- An Azure solution must be used for prediction systems.
- Predictive analytics must be published as a web service and accessible by using the REST API.

Security:

- The NorthRide app must use an additional level of authentication other than the employee's password.

- Access must be secured in NorthRide without opening a firewall port.
- Company policy prohibits inbound connections from internet callers to the on- premises network.
- Customer usernames in NorthRideFinder cannot exceed 10 characters.
- Customer data in NorthRideFinder can be received only by the user ID that is associated with the data.

QUESTION 1

You need to recommend a technology for processing customer pickup requests.

Which technology should you recommend?

- A. Notification hub
- B. Queue messaging
- C. Mobile Service with push notifications
- D. Service Bus messaging

Correct Answer: D

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Azure Service Bus Queue

Web Roles and Worker Roles can directly communicate with each other. However, a more common pattern is to use a reliable messaging system such as Azure Service Bus Queue to pass messages between them.

Cloud service role: A cloud service role is comprised of application files and a configuration. A cloud service can have two types of role:

- web role: A web role provides a dedicated Internet Information Services (IIS) web-server used for hosting front-end web applications.
- worker role: Applications hosted within worker roles can run asynchronous, long-running or perpetual tasks independent of user interaction or input

References: <https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-azure-and-service-bus-queues-compared-contrasted>

QUESTION 2

You need to recommend the appropriate technology to provide the predictive analytics for passenger pickup.

What should you do?

- A. Use Power BI to analyze the traffic data and PowerPivot to categorize the results.
- B. Use HDInsight to analyze the traffic data and write a .NET program to categorize the results.
- C. Use Machine Learning Studio to create a predictive model and publish the results as a web service.
- D. Use Hadoop on-premises to analyze the traffic and produce a report that shows high traffic zones.

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Scenario: Predictive Routing:

- An Azure solution must be used for prediction systems.
- Predictive analytics must be published as a web service and accessible by using the REST API.

Microsoft Azure Machine Learning Studio is a collaborative visual development environment that enables you to build, test, and deploy predictive analytics solutions that operate on your data. The Machine Learning service and development environment is cloud-based, provides compute resource and memory flexibility, and eliminates setup and installation concerns because you work through your web browser.

References: <https://azure.microsoft.com/en-us/documentation/articles/machine-learning-what-is-ml-studio/>

QUESTION 3

You need to design the authentication solution for the NorthRide app.

Which solution should you use?



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- A. Azure Active Directory Basic with multi-factor authentication for the cloud and on- premises users.
- B. Active Directory Domain Services with mutual authentication
- C. Azure Active Directory Premium and add multi-factor authentication for the cloud users
- D. Active Directory Domain Services with multi-factor authentication

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

- Scenario: The NorthRide app must use an additional level of authentication other than the employee's password.
- Azure Multi-Factor Authentication is the multi-factor authentication service that requires users to also verify sign-ins using a mobile app, phone call or text message. It is available to use with Azure Active Directory, to secure on-premise resources with the Azure Multi-Factor Authentication Server, and with custom applications and directories using the SDK.

Incorrect answers:

A: Azure Active Directory Basic does not support multi-factor authentication. Azure Active Directory Premium is required.

References:

<https://azure.microsoft.com/en-us/documentation/articles/multi-factor-authentication/> Azure Active Directory Pricing <http://azure.microsoft.com/en-gb/pricing/details/active-directory/>

QUESTION 4

DRAG DROP

You need to design the notification service for the customer-facing mobile app.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:



Actions

Update the mobile service script to send push notifications

Connect the mobile app to the mobile service

Push a notification to the target applications

Configure a notification hub

Connect the mobile app to the notification hub

Configure Mobile Services for push notifications

Answer Area



Correct Answer:

Actions

Connect the mobile app to the mobile service

Push a notification to the target applications

Configure Mobile Services for push notifications

Answer Area

Configure a notification hub

Connect the mobile app to the notification hub

Update the mobile service script to send push notifications



Section: [none]

Explanation

Explanation/Reference:

Explanation:

Azure Notification Hubs provide an easy-to-use infrastructure that enables you to send mobile push notifications from any backend (in the cloud or on-premises) to any mobile platform.

Configuration steps include: ▪

Configure your Notification Hub

- Connecting your app to the Notification Hub
- Send notification from your back-end

You can send notifications using Notification Hubs from any back-end using the REST interface. You do this through a script, not a configuration of Mobile Services.

Use Java or PHP for the script.

References: <https://azure.microsoft.com/en-us/documentation/articles/notification-hubs-windows-storedotnet-get-started/#send-notification-from-your-back-end>

QUESTION 5

DRAG DROP

You need to provide a data access solution for the NorthRide app.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions		Answer Area
Obtain the default management credentials for the namespace		
Create a service namespace under Service Bus		
Configure the Service Bus to consume a web service		
Configure Service Bus Queue	⬅	⬆
Configure the application to use Service Bus Relay	➡	⬇

Correct Answer:

Actions

Configure Service Bus Queue

Answer Area

Create a service namespace under Service Bus

Obtain the default management credentials for the namespace

Configure the Service Bus to consume a web service

Configure the application to use Service Bus Relay



Section: [none]

Explanation

Explanation/Reference:

Explanation:

Box 1: Create a service namespace under Service Bus

Box 2: Obtain the default management credentials for the namespace. Box 3: Configure the Service Bus to consume a web service

Box 3: Configure the Service Bus to consume a web service

Box 4: Configure the application to use Service Bus Relay

The Service Bus relay service enables you to build hybrid applications that run in both an Azure datacenter and your own on-premises enterprise environment. The Service Bus relay facilitates this by enabling you to securely expose Windows Communication Foundation (WCF) services that reside within a corporate enterprise network to the public cloud, without having to open a firewall connection, or require intrusive changes to a corporate network infrastructure.

QUESTION 6

You need to configure the Northwind website.

Which two solutions should you use? Each correct answer presents part of the solution.

- A. Use Azure Zone Redundant Storage to provide redundancy across Azure global data center.
- B. Deploy the Northwind site in an Azure web app
- C. Configure a hybrid connection to the database.
- D. Implement Azure ExpressRoute to increase the bandwidth for users of the Northwind public website.
- E. Create Azure virtual machines that run Windows and Linux servers in Azure data Centers.

Correct Answer: AB

Section: [none]

Explanation

Explanation/Reference:



Question Set 1

QUESTION 1

DRAG DROP

You are designing an Internet-of-Things (IoT) solution for a company.

The project will deploy thousands of sensors that measure noise levels in the company's manufacturing plants. The design must meet the following requirements:

- Data from the IoT devices must be monitored in near real-time.
- If the noise levels exceed certain thresholds, a notification must be sent alerting the appropriate people. Different people may be notified based on the severity of the threshold that has been exceeded.
- A mobile app will be distributed to those who receive notifications.
- The solution must allow configuration changes to be pushed to the IoT devices.

You need to design the flow of data from the IoT devices to the sending of the notification.

Which five services should you use to process the data in sequence from input to output? To answer, move the appropriate service from the list of services to the answer area and arrange them in the correct order.

Select and Place:



Actions

Azure Event Hubs
Azure Stream Analytics
Azure Service Bus Topics
Azure Service Bus Subscriptions
Azure Notification Hubs
Azure IoT Hub
Azure Data Factory
Azure Service Bus Queues

Answer Area



Correct Answer:

Actions

Azure Event Hubs

Azure Data Factory

Azure Service Bus Queues

Answer Area

Azure IoT Hub

Azure Service Bus Topics

Azure Service Bus Subscriptions

Azure Stream Analytics

Azure Notification Hubs

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Steps 2-3:

Create a Service Bus namespace, using the Azure portal.

Create a Service Bus topic, using the Azure portal.
Create a Service Bus subscription to that topic, using the Azure portal.

References: <https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-dotnet-how-to-use-topics-subscriptions>

QUESTION 2

You manage a solution in Azure that consists of a single application which runs on a virtual machine (VM). Traffic to the application has increased dramatically.

The application must not experience any downtime and scaling must be dynamically defined.

You need to define an auto-scale strategy to ensure that the VM can handle the workload.

Which three options should you recommend? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Create a VM availability set
- B. Deploy a custom auto-scale implementation
- C. Create a VM scale set
- D. Deploy application automatic vertical scaling
- E. Deploy application automatic horizontal scaling



Correct Answer: BCE

Section: [none]

Explanation

Explanation/Reference:

C (not A): You can easily automatically scale your virtual machines (VMs) when you use virtual machine scale sets and the autoscaling feature of Azure Monitor.

E (not D): The autoscale feature of Azure Monitor only scales horizontally, which is an increase ("out") or decrease ("in") of the number of VMs. Horizontal scaling is more flexible in a cloud situation as it allows you to run potentially thousands of VMs to handle load. You scale horizontally by either automatically or manually changing the capacity (or instance count) of the scale set.

References: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/autoscale>

QUESTION 3

Note: This question is part of a series of questions that present the same scenario. Each question on the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a solution in Azure. You configure Event Hubs to collect telemetry data from dozens of industrial machines. Hundreds of events per minute are logged in near real-time. You use this data to create dashboards for analysts.

The company is expanding their machinery and wants to know if the current telemetry solution will be sufficient to handle the volume of the increasing workload. The volume will increase 10 times by year end and on a regular basis thereafter. Latency will become more and more important as volume increases.

Messages must be retained for a week. Data must be captured automatically without price increase.

You need to recommend a solution.

Solution: Use the higher throughput limit of the dedicated tier to ensure real-time logging of the increasing volume.

Does the solution meet the goal?

- A. Yes
- B. No

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

You can request a larger number of throughput units for a Standard tier by filing a support request. Additional throughput units are available in blocks of 20 on a committed purchase basis.

References: <https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-quotas>

QUESTION 4

You architect a solution that calculates 3D geometry from height-map data.

You have the following requirements:

- Perform calculations in Azure.
- Each node must communicate data to every other node.
- Maximize the number of nodes to calculate multiple scenes as fast as possible. ▪

Require the least amount of effort to implement.

You need to recommend a solution.

Which two actions should you recommend? Each correct answer presents part of the solution.



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- A. Enable parallel file systems on Azure
- B. Create a render farm that uses Azure Batch
- C. Enable parallel task execution on compute nodes
- D. Create a render farm that uses virtual machines (VMs)
- E. Create a render farm that uses virtual machine (VM) scale sets

Correct Answer: BC

Section: [none]

Explanation



Explanation/Reference:

B: A common scenario for Batch involves scaling out intrinsically parallel work, such as the rendering of images for 3D scenes, on a pool of compute nodes. This pool of compute nodes can be your "render farm" that provides tens, hundreds, or even thousands of cores to your rendering job.

C: You configure compute nodes for parallel task execution at the pool level.

References:

<https://docs.microsoft.com/en-us/azure/batch/batch-technical-overview> <https://docs.microsoft.com/en-us/azure/batch/batch-parallel-node-tasks>

QUESTION 5

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are designing a storage solution to support on-premises resources and Azure-hosted resources.

You need to provide on-premises storage that has built-in replication to Azure.

Solution: You include Azure Blob storage in the design.

Does this solution meet the goal?

- A. Yes
- B. No

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

QUESTION 6

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are designing a storage solution to support on-premises resources and Azure-hosted resources.

You need to provide on-premises storage that has built-in replication to Azure.

Solution: You include Azure StorSimple storage in the design.

Does this solution meet the goal?

- A. Yes
- B. No

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

References: <https://docs.microsoft.com/en-us/azure/storsimple/storsimple-overview>

QUESTION 7

You are designing an Azure Web App that includes many static content files.

The application is accessed from locations all over the world by using a custom domain name.

You need to recommend an approach for providing access to the static content with the least amount of latency.

Which two actions should you recommend? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Place the static content in Azure Blob storage and enable Content Delivery Network (CDN) on the account.
- B. Place the static content in Azure Table storage.
- C. Configure a custom domain name that is an alias for the Azure Storage domain.
- D. Configure a CNAME DNS record for the Azure Content Delivery Network (CDN) domain.

Correct Answer: AD

Section: [none]

Explanation

Explanation/Reference:

Explanation:

A: The Azure Content Delivery Network (CDN) offers developers a global solution for delivering high-bandwidth content by caching blobs and static content of compute instances at physical nodes in the United States, Europe, Asia, Australia and South America.

The benefits of using CDN to cache Azure data include:

- Better performance and user experience for end users who are far from a content source, and are using applications where many 'internet trips' are required to load content
- Large distributed scale to better handle instantaneous high load, say, at the start of an event such as a product launch

D: There are two ways to map your custom domain to a CDN endpoint.

1. Create a CNAME record with your domain registrar and map your custom domain and subdomain to the CDN endpoint
2. Add an intermediate registration step with Azure cdnverify

References: <https://docs.microsoft.com/en-us/azure/architecture/best-practices/cdn>

QUESTION 8

You are designing a microservices architecture that will support a web application.

The solution must meet the following requirements:

- Allow independent upgrades to each microservice.
- Deploy the solution on-premises and to Azure.
- Set policies for performing automatic repairs to the microservices.

- Support low-latency and hyper-scale operations.

You need to recommend a technology.

What should you recommend?

- A. Azure Container Instance
- B. Azure Container Service
- C. Azure Virtual Machine Scale Set
- D. Azure Service Fabric

Correct Answer: D

Section: [none]

Explanation

Explanation/Reference:

References: <https://msdn.microsoft.com/en-us/magazine/mt595752.aspx>

QUESTION 9

DRAG DROP



A company runs multiple line-of-business applications in a Kubernetes container cluster. Source code for the applications resides in a version control repository which is a part of a continuous integration/continuous deployment (CI/CD) solution.

You must be able to upgrade containerized applications without downtime after all tests and reviews have completed successfully.

You need to recommend steps to go from source code to updated applications so that they can be automated in the CI/CD solution.

Which four actions should you recommend be performed in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Update the DNS CNAME record of the application.	
Update the container.	
Push the image to the registry.	
Build the application.	
Change the Azure Service Definition schema.	
Reconfigure the routing tables.	
Change the Azure Service Configuration file.	
Build the container image with the application.	

Correct Answer:

Actions	Answer Area
Update the DNS CNAME record of the application.	Build the application.
	Build the container image with the application.
	Push the image to the registry.
	Update the container.
Change the Azure Service Definition schema.	
Reconfigure the routing tables.	
Change the Azure Service Configuration file.	



Section: [none]

Explanation

Explanation/Reference:

References: <https://docs.microsoft.com/en-us/vsts/build-release/apps/cd/azure/deploy-container-kubernetes>

QUESTION 10

You have business services that run on an on-premises mainframe server.

You must provide an intermediary configuration to support existing business services and Azure. The business services cannot be rewritten. The business services are not exposed externally.

You need to recommend an approach for accessing the business services.

What should you recommend?

- A. Connect to the on-premises server by using a custom service in Azure.
- B. Expose the business services externally.

- C. Expose the business services to the Azure Service Bus by using a custom service that uses relay binding.
- D. Move all business service functionality to Azure.

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

The Azure WCF Relay service enables you to build hybrid applications that run in both an Azure datacenter and your own on-premises enterprise environment. The relay service facilitates this by enabling you to securely expose Windows Communication Foundation (WCF) services that reside within a corporate enterprise network to the public cloud, without having to open a firewall connection, or requiring intrusive changes to a corporate network infrastructure.

References: <http://azure.microsoft.com/en-gb/documentation/articles/service-bus-dotnet-how-to-use-relay/>

QUESTION 11

You manage on-premises network and Azure virtual networks.

You need a secure private connection between the on-premises networks and the Azure virtual networks. The connection must offer a redundant pair of cross connections to provide high availability.

What should you recommend?

- A. virtual network peering
- B. Azure Load Balancer
- C. VPN Gateway D. ExpressRoute

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

References: <https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-overview>

QUESTION 12

You are designing a solution that will aggregate and analyze data from Internet of Things (IoT) devices.

The solution must meet the following requirements: ▪
Store petabytes of data

- Use shared access policies to provide service connections to the IoT event source.
- Conduct analysis of data in near real-time.
- Provide ultra-low latency and highly scalable transaction processing.

You need to recommend a technology.

What should you recommend?

- A. Azure Data Lake Store
- B. Azure Redis Cache
- C. Azure Time Series Insights
- D. Azure Table storage

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

References: <https://azure.microsoft.com/en-us/services/data-lake-store/>



QUESTION 13

Your company uses Office 365 for all employees. The company plans to create a website where customers can view and register technical support cases.

The solution must meet the following requirements:

- Provision customer identities by using social media accounts.
- Users must be able to access the website by using social media accounts including Facebook.
- Employees of the customer service department must be able to access the site to read the cases and resolve them.

You need to design an identity solution for the company.

Which two actions should you recommend? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. a custom policy to link internal store to the external store
- B. a new Azure Active Directory (Azure AD) business-to-business (B2B) tenant
- C. an Azure SQL data sync to link the internal store to the external one
- D. a new Azure Active Directory (Azure AD) business-to-consumer (B2C) tenant
- E. a new Azure Active Directory (Azure AD) tenant

Correct Answer: AD

Section: [none]

Explanation

Explanation/Reference:

References:

<https://docs.microsoft.com/en-us/azure/active-directory-b2c/active-directory-b2c-overview> <https://docs.microsoft.com/en-us/azure/active-directory-b2c/active-directory-b2c-overview-custom>

QUESTION 14

Note: This question is part of a series of questions that present the same scenario. Each question on the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

A company has custom ASP.net and Java applications that run on old versions of Windows and Linux. The company plans to place applications in containers.

You need to design a solution that includes networking, service discovery, and load balancing for the applications. The solution must support storage orchestration.

Solution: You deploy each application to an Azure Container instance.

Does the solution meet the goal?

A. Yes

B. No

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Azure Container Instances are really containers as a service. You request a container instance to be created based on an image and the container is created for you. You don't see an orchestrator, you don't see a VM, you don't see anything other than your container instance. References:

<https://azure.microsoft.com/en-us/services/container-instances/>

QUESTION 15

Note: This question is part of a series of questions that present the same scenario. Each question on the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are designing a storage solution to support on-premises resources and Azure-hosted resources.

You need to provide on-premises storage that has built-in replication to Azure.

Solution: You include Azure Files in the design.

Does this solution meet the goal?

- A. Yes
- B. No

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

References: <https://azure.microsoft.com/en-us/services/container-instances/>

QUESTION 16

You develop a new Azure Web App that uses multiple Azure blobs and static content. The Web App uses a large number of JavaScript files and cascading style sheets. Some of these files contain references to other files. Users are geographically dispersed.

You need to minimize the time to load individual pages.

What should you do?

- A. Migrate the Web App to Azure Service Fabric.
- B. Create a services layer by using an Azure-hosted ASP.NET web API.
- C. Use an Azure Content Delivery Network (CDN).
- D. Implement an Azure Redis Cache.
- E. Enable the Always On feature of the Web App.

Correct Answer: D

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Azure Web Apps provides a great way of building and scale Web Apps. Adding a Redis Cache allows you serve data much faster to the user which increases the performance a lot. Redis Cache is an open source engine which has consistent low latency and high throughput.

References: <https://docs.microsoft.com/en-us/azure/redis-cache/cache-web-app-cache-aside-leaderboard>

QUESTION 17

You have an Azure subscription named Subscription1.

You create several Azure virtual machines in Subscription1. All of the virtual machines belong to the same virtual network.

You have an on-premises Hyper-V server named Server1. Server1 hosts a virtual machine named VM1.

You plan to replicate VM1 to Azure.

You need to create additional objects in Subscription1 to support the planned deployment.

Which three objects should you create? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.



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- A. storage account
- B. protection group
- C. Azure Traffic Manager instance
- D. endpoint
- E. Azure Site Recovery vault
- F. Hyper-V site

Correct Answer: AEF

Section: [none]

Explanation

Explanation/Reference:

Explanation:

You need to set up a Recovery Services vault to orchestrate and manage replication.

Make sure Hyper-V hosts are prepared for Site Recovery deployment.

You need a Microsoft Azure account, Azure networks, and storage accounts.

References: <https://docs.microsoft.com/en-us/azure/site-recovery/azure-to-azure-tutorial-enable-replication>

QUESTION 18

You are designing the deployment of virtual machines (VMs) and web services that run in Azure.

You need to specify the desired state of a node and ensure that the node remains at that state.

What should you use?

- A. Azure Automation DSC
- B. Windows Azure Pack
- C. Service Management Automation
- D. System Center 2016 Orchestrator

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Azure Automation DSC is an Azure service that allows you to write, manage, and compile PowerShell Desired State Configuration (DSC) configurations, import DSC Resources, and assign configurations to target nodes, all in the cloud.

References: <https://docs.microsoft.com/en-us/azure/automation/automation-dsc-overview>

QUESTION 19

A company has a hybrid ASP.NET Web API application that is based on a software as a service (SaaS) offering.

Users report general issues with the data. You advise the company to implement live monitoring and use ad hoc queries on stored JSON data. You also advise the company to set up smart alerting to detect anomalies in the data.

You need to recommend a solution to set up smart alerting.

What should you recommend?

- A. Azure Security Center and Azure Data Lake Store
- B. Azure Data Lake Analytics and Microsoft Operations Management Suite.
- C. Azure Application Insights and Azure Log Analytics
- D. Azure Site Recovery and Microsoft Operations Management Suite

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

References: <https://azure.microsoft.com/en-us/blog/how-azure-security-center-helps-analyze-attacks-using-investigation-and-log-search/>

QUESTION 20

A company hosts virtual machines (VMs) in an on-premises datacenter and in Azure. The on-premises and Azure-based VMs communicate using ExpressRoute.

The company wants to be able to continue regular operations if the ExpressRoute connection fails. Failover connections must use the Internet and must not require Multiprotocol Label Switching (MPLS) support.

You need to recommend a solution that provides continued operations.

What should you recommend?

- A. Set up a VPN connection.
- B. Set up a second ExpressRoute connection.
- C. Increase the bandwidth of the existing ExpressRoute connection.
- D. Increase the bandwidth for the on-premises internet connection.

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Remember that replication from Azure to on-premises can happen only over the S2S VPN, or over the private peering of your ExpressRoute network. Ensure that enough bandwidth is available over that network channel.

References: <https://docs.microsoft.com/en-us/azure/expressroute/expressroute-faqs>

QUESTION 21

You are designing an Azure solution.

The solution must meet the following requirements:

- Distribute traffic to different pools of dedicated virtual machines (VMs) based on rules. ▪
- Provide SSL offloading capabilities.

You need to recommend a solution to distribute network traffic.

Which technology should you recommend?

- A. Azure Load Balancer
- B. server-level firewall rules
- C. Azure Application Gateway
- D. Azure Traffic Manager

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Azure Application Gateway is a web traffic load balancer that enables you to manage traffic to your web applications.

Azure Application Gateway can be configured to terminate the Secure Sockets Layer (SSL) session at the gateway to avoid costly SSL decryption tasks to happen at the web farm. SSL offload also simplifies the front-end server setup and management of the web application.

References:

<https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-introduction> <https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-ssl>

QUESTION 22

HOTSPOT

You manage a network that includes an on-premises Active Directory Domain Services domain and an Azure Active Directory (Azure AD).

Employees are required to use different accounts when using on-premises or cloud resources. You must recommend a solution that lets employees sign in to all company resources by using a single account. The solution must implement an identity provider.

You need provide guidance on the different identity providers.

How should you describe each identity provider? To answer, select the appropriate description from each list in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Identity provider Description

synchronized identity

	▼
User management occurs on-premises. Azure AD authenticates employees by using on-premises password.	
User management occurs on-premises. The on-premises domain controller authenticates employee credentials.	
Both user management and authentication occur in Azure AD.	

federated identity

	▼
User management occurs on-premises. Azure AD authenticates employees by using on-premises passwords.	
User management occurs on-premises. The on-premises domain controller authenticates employee credentials.	
Both user management and authentication occur in Azure AD.	

Correct Answer:

Answer Area

Identity provider Description

synchronized identity

	▼
User management occurs on-premises. Azure AD authenticates employees by using on-premises password.	
User management occurs on-premises. The on-premises domain controller authenticates employee credentials.	
Both user management and authentication occur in Azure AD.	

federated identity

	▼
User management occurs on-premises. Azure AD authenticates employees by using on-premises passwords.	
User management occurs on-premises. The on-premises domain controller authenticates employee credentials.	
Both user management and authentication occur in Azure AD.	

Section: [none]

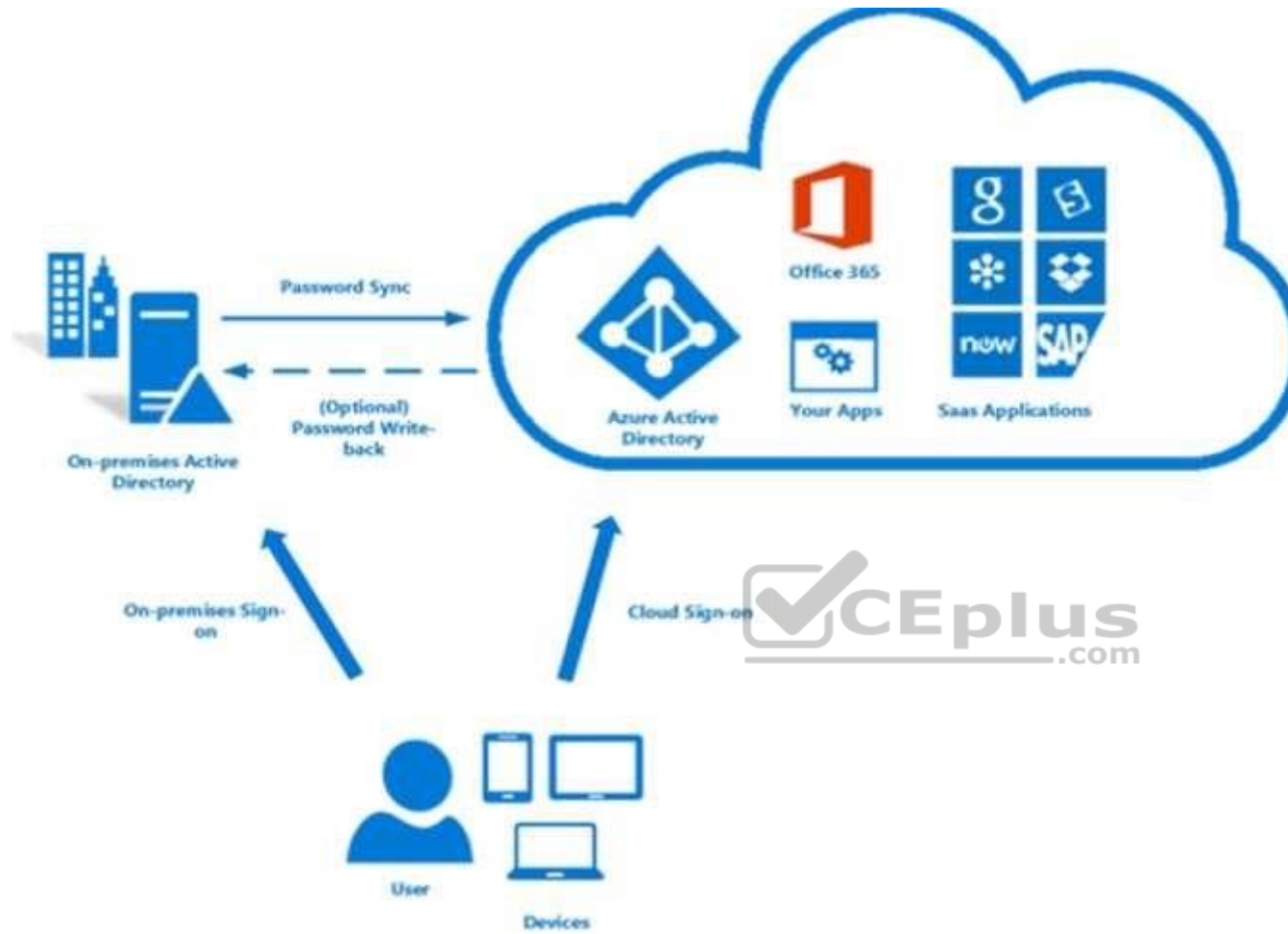
Explanation

Explanation/Reference:

Explanation:

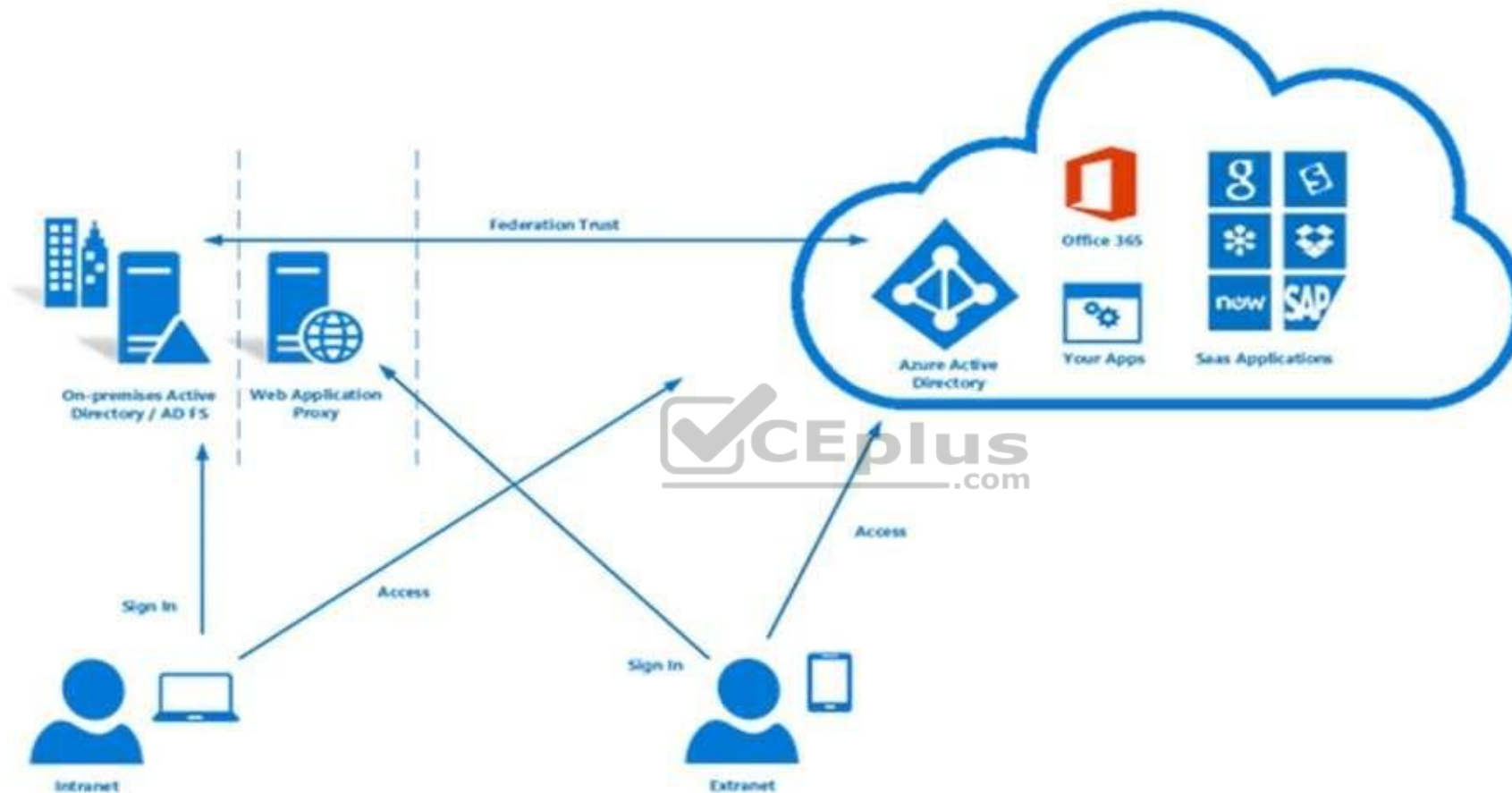
Synchronized identity is the simplest way to synchronize on-premises directory objects (users and groups) with Azure AD.

While synchronized identity is the easiest and quickest method, your users still need to maintain a separate password for cloud-based resources. To avoid this, you can also (optionally) synchronize a hash of user passwords to your Azure AD directory. Synchronizing password hashes enables users to log in to cloud-based organizational resources with the same user name and password that they use on-premises. Azure AD Connect periodically checks your on-premises directory for changes and keeps your Azure AD directory synchronized. When a user attribute or password is changed on-premises Active Directory, it is automatically updated in Azure AD.



Federated identity:

For more control over how users access Office 365 and other cloud services, you can set up directory synchronization with single sign-on (SSO) using Active Directory Federation Services (AD FS). Federating your user's sign-ins with AD FS delegates authentication to an on-premises server that validates user credentials. In this model, on-premises Active Directory credentials are never passed to Azure AD.



Reference: <https://docs.microsoft.com/en-us/azure/active-directory/choose-hybrid-identity-solution#synchronized-identity>

QUESTION 23

Note: This question is part of a series of questions that present the same scenario. Each question on the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are planning to create a virtual network that has a scale set that contains six virtual machines (VMs).

A monitoring solution on a different network will need access to the VMs inside the scale set.

You need to define public access to the VMs.

Solution: Deploy a standalone VM that has a public IP address to the virtual network.

Does the solution meet the goal?

A. Yes

B. No

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Public IP addresses are necessary because they provide the load balanced entry point for the virtual machines in the scale set. The public IP address will route traffic to the appropriate virtual machines in the scale set.

Reference: <https://mitra.computa.asia/articles/msdn-virtual-machine-scale-sets-it-really-about-protecting-your-applications-performance>

QUESTION 24

Note: This question is part of a series of questions that present the same scenario. Each question on the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a solution in Azure. You configure Event Hubs to collect telemetry data from dozens of industrial machines. Hundreds of events per minute are logged in near real-time. You use this data to create dashboards for analysts.

The company is expanding their machinery and wants to know if the current telemetry solution will be sufficient to handle the volume of the increasing workload. The volume will increase 10 times by year end and on a regular basis thereafter. Latency will become more and more important as volume increases.

Messages must be retained for a week. Data must be captured automatically without price increase.

You need to recommend a solution.

Solution: Use single-tenant hosting in the dedicated tier to handle the increased volume.

Does the solution meet the goal?

A. Yes

B. No

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Azure Event Hubs Dedicated is ideal for customers that need a single-tenant deployment to manage the most demanding requirements.

Note: The dedicated tier option involves Zero maintenance: The service manages load balancing, OS updates, security patches, and partitioning.

The following table compares the available service tiers of Event Hubs. The Event Hubs Dedicated offering is a fixed monthly price, compared to usage pricing for most features of Standard. The Dedicated tier offers all the features of the Standard plan, but with enterprise scale capacity for customers with demanding workloads.



Feature	Standard	Dedicated
Ingress events	Pay per million events	Included
Throughput unit (1 MB/sec ingress, 2 MB/sec egress)	Pay per hour	Included
Message Size	256 KB	1 MB
Publisher policies	Yes	Yes
Consumer groups	20	20
Message replay	Yes	Yes
Maximum throughput units	20 (flexible to 100)	1 Capacity Unit (CU) \approx 50

Reference: <https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-dedicated-overview>

QUESTION 25

Note: This question is part of a series of questions that present the same scenario. Each question on the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a solution in Azure. You configure Event Hubs to collect telemetry data from dozens of industrial machines. Hundreds of events per minute are logged in near real-time. You use this data to create dashboards for analysts.

The company is expanding their machinery and wants to know if the current telemetry solution will be sufficient to handle the volume of the increasing workload. The volume will increase 10 times by year end and on a regular basis thereafter. Latency will become more and more important as volume increases.

Messages must be retained for a week. Data must be captured automatically without price increase.

You need to recommend a solution.

Solution: Use the more flexible deployment model in the dedicated tier for the increased workload.

Does the solution meet the goal?

- A. Yes
- B. No

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Azure Event Hubs Dedicated is ideal for customers that need a single-tenant deployment, not the flexible deployment model, to manage the most demanding requirements.

Reference: <https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-dedicated-overview>

QUESTION 26

You manage an Azure environment for a company. The environment has over 25,000 licensed users and 100 mission-critical applications.

You need to recommend a solution that provides advanced endpoint threat detection and remediation strategies.

What should you recommend?

- A. Azure Active Directory Federation Services (AD FS)
- B. Microsoft Identity Manager
- C. Azure Active Directory (Azure AD) Identity Protection
- D. Azure Active Directory (Azure AD) Connect
- E. Azure Active Directory (Azure AD) authentication

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Azure Active Directory Identity Protection is a feature of the Azure AD Premium P2 edition that enables you to:

Detect potential vulnerabilities affecting your organization's identities

Configure automated responses to detected suspicious actions that are related to your organization's identities

Investigate suspicious incidents and take appropriate action to resolve them

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/active-directory-identityprotection>

QUESTION 27

A company plans to use third-party application software to perform complex data analysis processes. The software will use up to 500 identical virtual machines (VMs) based on an Azure Marketplace VM image.

You need to design the infrastructure for the third-party application server. The solution must meet the following requirements:

- The number of VMs that are running at any given point in time must change when the user workload changes.
- When a new version of the application is available in Azure Marketplace it must be deployed without causing application downtime.
- Use VM scale sets
- Minimize the need for ongoing maintenance.

Which two technologies should you recommend? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. autoscale
- B. single placement group
- C. managed disks
- D. single storage account



Correct Answer: AC

Section: [none]

Explanation

Explanation/Reference:

A: If your application demand increases, the load on the VM instances in your scale set increases. If this increased load is consistent, rather than just a brief demand, you can configure autoscale rules to increase the number of VM instances in the scale set.

C: Large scale sets require Azure Managed Disks.

Incorrect Answers:

B: By default, a scale set consists of a single placement group with a maximum size of 100 VMs. If a scale set property called singlePlacementGroup is set to false, the scale set can be composed of multiple placement groups and has a range of 0-1,000 VMs. When set to the default value of true, a scale set is composed of a single placement group, and has a range of 0-100 VMs.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-placement-groups>

QUESTION 28

You manage a solution in Azure.

You must collect usage data including MAC addresses from all devices on the network.

You need to recommend a monitoring solution.

What should you recommend?

- A. Activity Log Analytics
- B. Azure Wire Data
- C. Azure Application Gateway Analytics
- D. Azure Network Security Group Analytics
- E. Network Performance Monitor

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Wire data is consolidated network and performance data collected from Windows-connected and Linux-connected computers with the OMS agent, including those monitored by Operations Manager in your environment. Network data is combined with your other log data to help you correlate data.

When you search using wire data, you can filter and group data to view information about the top agents and top protocols. Or you can view when certain computers (IP addresses/MAC addresses) communicated with each other, for how long, and how much data was sent — basically, you view metadata about network traffic, which is search-based

Reference: <https://docs.microsoft.com/en-us/azure/log-analytics/log-analytics-wire-data>

QUESTION 29

You are responsible for mobile app development for a company. The company develops apps on Windows Mobile, iOS, and Android. You plan to integrate push notifications into every app.

You need to be able to send users alerts from a backend server.

Which two options can you use to achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Azure Mobile App Service
- B. Azure SQL Database
- C. Azure Notification Hubs.



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- D. Azure Web App
- E. a virtual machine

Correct Answer: AC

Section: [none]

Explanation

Explanation/Reference:

A: With the release of Social Cloud we got to use many different features of Windows Azure Mobile Services including Push Notifications. As a long time developer of mobile apps, leveraging push notifications is a great way to stay connected and engaged with your customers and Azure Mobile Services makes it really easy to implement without having the headache of deploying server infrastructure.

C: The Mobile Apps feature of Azure App Service uses Azure Notification Hubs to send pushes, so you will be configuring a notification hub for your mobile app.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service-mobile/app-service-mobile-ios-get-started-push> <http://www.redbitdev.com/implementing-push-notifications-with-azure-mobile-services/>

QUESTION 30

You are designing two Azure HDInsight clusters for a bank. The clusters will process millions of transactions each day.

The storage solution for the clusters must meet the following requirements:

- Ensure optimum performance of processing transactions.
- Store transactions in a hierarchical file system. ▪

Use the minimal number of storage accounts.

What should you recommend?

- A. Create only an Azure Blob storage account for both clusters.
- B. Create only an Azure Data Lake Store account for both clusters.

- C. Create separate Azure Data Lake Store accounts and Azure Blob storage accounts for each cluster.
- D. Create one Azure Data Lake Store account and one Azure Blob storage account. Use the accounts for both clusters.

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Azure Data Lake uses an Hierarchical file system.

Incorrect Answers:

A: Azure Blob storage uses an object store with flat namespace.

Reference: <https://docs.microsoft.com/en-us/azure/data-lake-store/data-lake-store-comparison-with-blob-storage>

QUESTION 31

You are migrating an existing Windows application to an Azure virtual machine (VM) that runs Windows.

The application generates, stores, and retrieves a large number of small files. The performance of the application directly corresponds to the speed that these files can be loaded and saved.

You need to maximize application performance and storage efficiency.

Which are two possible ways to achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Premium Storage virtual hard disk (VHD)
- B. Standard Storage virtual hard disk (VHD)
- C. Standard Storage Blob storage
- D. Premium Storage Blob storage

Correct Answer: AD

Section: [none]

Explanation

Explanation/Reference:

A: Azure Premium Storage delivers high-performance, low-latency disk support for virtual machines (VMs) with input/output (I/O)-intensive workloads. VM disks that use Premium Storage store data on solid-state drives (SSDs). To take advantage of the speed and performance of premium storage disks, you can migrate existing VM disks to Premium Storage.

Azure offers two ways to create premium storage disks for VMs:

Unmanaged disks

The original method is to use unmanaged disks. In an unmanaged disk, you manage the storage accounts that you use to store the virtual hard disk (VHD) files that correspond to your VM disks. VHD files are stored as page blobs in Azure storage accounts.

Managed disks

When you choose Azure Managed Disks, Azure manages the storage accounts that you use for your VM disks. You specify the disk type (Premium or Standard) and the size of the disk that you need. Azure creates and manages the disk for you.

Premium Storage supports page blobs.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/premium-storage>

QUESTION 32

You are designing an Azure web application. The solution will be used by multiple customers.

Each customer has different business logic and user interface requirements. Not all customers use the same version of the .NET runtime.

You need to recommend a deployment strategy.

What should you recommend?

- A. Deploy with multiple web role instances.
- B. Deploy each application in a separate tenant.
- C. Deploy all applications in one tenant.
- D. Deploy with multiple worker role instances.



Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

There are two types of tenant environments. The simplest type is a single-tenant application where one customer has 100% dedicated access to an application's process space. A single Tenant Applications has a separate, logical instance of the application for each customer or client. A single tenant application is much more predictable and stable by its nature since there will never be more than one dedicated customer at any point in time in that VM. That customer has all of its users accessing that dedicated instance of the application.

Multi Tenancy and Windows Azure. Overview of Multi tenant Application and Single tenant Application Architectural considerations.

References: <http://sanganakauthority.blogspot.in/2011/12/multi-tenancy-and-windows-azure.html>

QUESTION 33

You are designing a Windows Azure application.

The application includes processes that communicate by using Windows Communications Foundation (WCF) services.

The WCF services must support streaming.

You need to recommend a host for the processes and a WCF binding.

Which two actions should you recommend? Each correct answer presents part of the solution. (Choose two.)

- A. Host the processes in web roles.
- B. Host the processes in worker roles.
- C. Use NetTcpBinding for the WCF services.
- D. Use WSHttpBinding for the WCF services.

Correct Answer: BC

Section: [none]

Explanation

Explanation/Reference:

Worker roles are Windows Server VMs with IIS disabled.

WCF Streaming is only available with the following system-defined bindings: BasicHttpBinding, NetTcpBinding, NetNamedPipeBinding, and WebHttpBinding.

Incorrect:

Not A: Web roles are Windows Server VMs with IIS enabled.

References: [https://msdn.microsoft.com/en-us/library/ms733742\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/ms733742(v=vs.110).aspx)

QUESTION 34

You are designing a Windows Azure application.

Messages will be placed into a Windows Azure Queue and then processed by a worker role. There is no requirement for adherence to the Windows Azure Service Level Agreement (SLA). You need to recommend an approach for concurrently processing messages while minimizing compute cost.

What should you recommend?

- A. A single role instance that processes messages individually
- B. A single role instance with multithreaded request processing
- C. Multiple role instances that process messages individually
- D. Multiple role instances, each with multithreaded request processing

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

A single role instance would minimize the cost.

You can write code to take advantage of multiple threads, resulting in more efficient applications, by allowing one thread to be executed while another thread waits for some time-consuming operation to complete.

References: <https://docs.microsoft.com/en-us/windows/desktop/com/processes--threads--and-apartments>

QUESTION 35

You are designing a Windows Azure application that will use a worker role. The worker role will create temporary files.

You need to recommend an approach for creating the temporary files that minimizes storage transactions.

What should you recommend?

- A. Create the files on a Windows Azure Drive.
- B. Create the files in Windows Azure local storage.
- C. Create the files in Windows Azure Storage page blobs.
- D. Create the files in Windows Azure Storage block blobs.



Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Local storage is temporary in Azure. So, if the virtual machine supporting your role dies and cannot recover, your local storage is lost! Therefore, Azure developers will tell you, only volatile data should ever be stored in local storage of Azure.

Windows Azure Local File Storage How To Guide And Warnings

References: <http://www.intertech.com/Blog/windows-azure-local-file-storage-how-to-guide-and-warnings/> <http://blog.codingoutloud.com/2011/06/12/azure-faq-can-i-write-to-thefile-system-on-windowsazure/>

QUESTION 36

You design an Azure web application.

The web application is accessible by default at a standard cloudapp.net URL.

You need to recommend a DNS resource record type that will allow you to configure access to the web application by using a custom domain name.

Which DNS record type should you recommend?

- A. SRV
- B. MX
- C. CNAME
- D. A

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

You can also use CNAME or A records to associate a custom domain name with your VM. When you use A records, however, you need to note that the VIP of your VM might change. When you deallocate a VM, the associated VIP is released. And when the VM is restarted later, a new VIP will be picked and assigned. If you want to ensure that your VM has a static public IP address, you'll need to configure a static IP address for it as described earlier.

References: <http://azure.microsoft.com/en-gb/documentation/articles/cloud-services-custom-domain-name/>

QUESTION 37

You are designing an Azure application.

The application includes services hosted in different geographic locations. The service locations may change.

You must minimize the cost of communication between services.

You need to recommend an approach for data transmission between your application and Azure services.

The solution must minimize administrative effort. What should you recommend?

- A. Azure Table storage
- B. Service Bus
- C. Service Management API
- D. Azure Queue storage

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

The cost of ACS transactions is insignificant when performing messaging operations against Service Bus queues. Service Bus acquires one ACS token per a single instance of the messaging factory object. The token is then reused until it expires, after about 20 minutes. Therefore, the volume of messaging operations in Service Bus is not directly proportional to the amount of ACS transactions required to support these operations. References:

<https://msdn.microsoft.com/library/azure/hh767287.aspx>

QUESTION 38

You are designing a distributed application for Azure.

The application must securely integrate with on-premises servers.

You need to recommend a method of enabling Internet Protocol security (IPsec)-protected connections between on-premises servers and the distributed application.

What should you recommend?

- A. Azure Access Control
- B. Azure Content Delivery Network (CDN)
- C. Azure Service Bus
- D. Azure Site-to-Site VPN



Correct Answer: D

Section: [none]

Explanation

Explanation/Reference:

Explanation:

IPsec can be used on Azure Site-to-Site VPN connections. Distributed applications can use the IPsec VPN connections to communicate.

References: <https://msdn.microsoft.com/en-us/library/azure/dn133798.aspx>

QUESTION 39

A company has 10 on-premises SQL databases.

The company plans to move the databases to SQL Server 2012 that runs in Azure Infrastructure- as-a-Service (IaaS).

After migration, the databases will support a limited number of Azure websites in the same Azure Virtual Network.

You have the following requirements:

- You must restore copies of existing on-premises SQL databases to the SQL servers that run in Azure IaaS.
- You must be able to manage the SQL databases remotely.
- You must not open a direct connection from all of the machines on the on-premises network to Azure.
- Connections to the databases must originate from only five Windows computers. ▪

You need to configure remote connectivity to the databases.

Which technology solution should you implement?

- A. Azure Virtual Network site-to-site VPN
- B. Azure Virtual Network multi-point VPN
- C. Azure Virtual Network point-to-site VPN
- D. Azure ExpressRoute

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

A point-to-site VPN would meet the requirements.

Configure a Point-to-Site VPN connection to an Azure Virtual Network

References: <https://azure.microsoft.com/en-us/documentation/articles/vpn-gateway-point-to-site-create/>

QUESTION 40

You have several virtual machines (VMs) that run in Azure.

You also have a single System Center 2012 R2 Configuration Manager (SCCM) primary site on-premises.

You have the following requirements:

- All VMs must run on the same virtual network.
 - Network traffic must be minimized between the on-premises datacenter and Azure. ▪
- The solution must minimize complexity.

You need to use SCCM to collect inventory and deploy software to Azure VMs.

What should you do first?

- A. Configure client push for the Azure virtual network.

- B. Enable and configure Operations Insights in Azure.
- C. Install a cloud distribution point on an Azure VM.
- D. Install a secondary site underneath the primary site onto an Azure VM.

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Cloud-based distribution Point, a Configuration Manager Site System Role in the Cloud Much of the Configuration Manager topology is made up of distribution points, they are very helpful in many situations where bandwidth and geographical separation are the facts of life, but also hard to manage if you have hundreds or even thousands of them.

This feature started with the vision that it makes perfect sense to have big distribution points in the Windows Azure cloud where one should not worry about things like (but not limited to) size, performance, reliability, security, access from all around the world, hardware/software update issues etc.

Note: Content management in System Center 2012 Configuration Manager provides the tools for you to manage content files for applications, packages, software updates, and operating system deployment. Configuration Manager uses distribution points to store files that are required for software to run on client computers. These distribution points function as distribution centers for the content files and let users download and run the software. Clients must have access to at least one distribution point from which they can download the files.

References: <http://blogs.technet.com/b/configmgrteam/archive/2013/01/31/new-distribution-points- inconfiguration-manager-sp1.aspx>

QUESTION 41

You are running a Linux guest in Azure Infrastructure-as-a-Service (IaaS). You must run a daily maintenance task.

The maintenance task requires native BASH commands. You need to configure Azure Automation to perform this task.

Which three actions should you perform? Each correct answer presents part of the solution.

- A. Create an automation account.
- B. Create an Orchestrator runbook.
- C. Create an asset credential.
- D. Run the Invoke-Workflow Azure PowerShell cmdlet.
- E. Import the SSH PowerShell Module.

Correct Answer: ACE

Section: [none]

Explanation

Explanation/Reference:

Explanation:

A: An Automation Account is a container for your Azure Automation resources: it provides a way to separate your environments or further organize your workflows.

To create an Automation Account

1. Log in to the Azure Management Portal.
2. In the Management Portal, click Create an Automation Account.
3. On the Add a New Automation Account page, enter a name and pick a region for the account.

Get started with Azure Automation <http://azure.microsoft.com/en-gb/documentation/articles/automation-create-runbook-fromsamples/> C:

- Asset credentials are either a username and password combination that can be used with Windows PowerShell commands or a certificate that is uploaded to Azure Automation.
- The Assets page in Automation displays the various resources (also called “settings”) that are globally available to be used in or associated with a runbook, plus commands to import an integration module, add a new asset, or delete an asset. Assets include variables, schedules, credentials, and connections.

E:

Managing SSH enabled Linux hosts using Service Management Automation

References:

<http://azure.microsoft.com/blog/2014/07/29/getting-started-with-azure-automation-automationassets-2/>

<http://blogs.technet.com/b/orchestrator/archive/2014/05/01/managing-ssh-enabled-linux-hostsusing-service-management-automation.aspx>

QUESTION 42

A company has multiple Azure subscriptions.

It plans to deploy a large number of virtual machines (VMs) into Azure.

You install the Azure PowerShell module, but you are unable connect to all of the company's Azure subscriptions.

You need to automate the management of the Azure subscriptions.

Which two Azure PowerShell cmdlets should you run?

- A. Get-AzurePublishSettingsFile
- B. Import-AzurePublishSettingsFile
- C. Add-AzureSubscription
- D. Import-AzureCertificate
- E. Get-AzureCertificate

Correct Answer: AB

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Before you start using the Windows Azure cmdlets to automate deployments, you must configure connectivity between the provisioning computer and Windows Azure. You can do this automatically by downloading the PublishSettings file from Windows Azure and importing it.

1. To download and import publish settings and subscription information at the Windows PowerShell command prompt, type the following command, and then press Enter. `Get-AzurePublishSettingsFile`
2. Sign in to the Windows Azure Management Portal, and then follow the instructions to download your Windows Azure publishing settings. Save the file as a .publishsettings type file to your computer.
3. In the Windows Azure PowerShell window, at the command prompt, type the following command, and then press Enter. `Import-AzurePublishSettingsFile <mysettings>.publishsettings`

References: <https://msdn.microsoft.com/en-us/library/dn385850%28v=nav.70%29.aspx>

QUESTION 43

Contoso, Ltd., uses Azure websites for public-facing customer websites.

The company has a mobile app that requires customers sign in by using a Contoso customer account.

Customers must be able to sign on to the websites and mobile app by using a Microsoft, Facebook, or Google account.

All transactions must be secured in-transit regardless of device.

You need to configure the websites and mobile app to work with external identity providers.

Which three actions should you perform? Each correct answer presents part of the solution.

- A. Request a certificate from a domain registrar for the website URL, and enable TLS/SSL.
- B. Configure IPsec for the websites and the mobile app.
- C. Configure the KerberosTokenProfile 1.1 protocol.
- D. Configure OAuth2 to connect to an external authentication provider.
- E. Build an app by using MVC 5 that is hosted in Azure to provide a framework for the underlying authentication.

Correct Answer: ADE

Section: [none]

Explanation

Explanation/Reference:

Explanation:

DE: This tutorial shows you how to build an ASP.NET MVC 5 web application that enables users to log in using OAuth 2.0 with credentials from an external authentication provider, such as Facebook, Twitter, LinkedIn, Microsoft, or Google.

A:

- * You will now be redirected back to the Register page of the MvcAuth application where you can register your Google account. You have the option of changing the local email registration name used for your Gmail account, but you generally want to keep the default email alias (that is, the one you used for authentication). Click Register.
- * To connect to authentication providers like Google and Facebook, you will need to set up IISExpress to use SSL.

References: <http://www.asp.net/mvc/overview/security/create-an-aspnet-mvc-5-app-with-facebook-andgoogle-oauth2-and-openid-sign-on>

QUESTION 44

You are designing a solution that will interact with non-Windows applications over unreliable network connections.

You have a security token for each non-Windows application.

You need to ensure that non-Windows applications retrieve messages from the solution.

Where should you retrieve messages?

- A. An Azure Queue
- B. The Azure Service Bus Queue
- C. An Azure blob storage container that has a private access policy
- D. Azure Table storage

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Any Microsoft or non-Microsoft applications can use a Service Bus REST API to manage and access messaging entities over HTTPS.

By using REST applications based on non-Microsoft technologies (e.g. Java, Ruby, etc.) are allowed not only to send and receive messages from the Service Bus, but also to create or delete queues, topics and subscription in a given namespace.

References: <https://code.msdn.microsoft.com/windowsazure/service-bus-explorer-f2abca5a>

QUESTION 45

You are the administrator for a company named Contoso, Ltd.

Contoso also has an Azure subscription and uses many on-premises Active Directory products as roles in Windows Server including the following:

- Active Directory Domain Services (AD DS)
- Active Directory Certificate Services (AD CS)
- Active Directory Rights Management Services (AD RMS) Active Directory Lightweight Directory Services (AD LDS) Active Directory Federation Services (AD FS).

Contoso must use the directory management services available in Azure Active Directory. You need to provide information to Contoso on the similarities and differences between Azure Active Directory and the Windows Server Active Directory family of services.

Which feature does Azure Active Directory and on-premises Active Directory both support?



<https://vceplus.com/>

- A. Using the GraphAPI to query the directory
- B. Issuing user certificates
- C. Supporting single sign-on (SSO)
- D. Querying the directory with LDAP



Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

AD FS supports Web single-sign-on (SSO) technologies, and so does Azure Active Directory. If you want single sign on, we usually suggest using ADFS if you're a Windows shop. Going forward though, Azure Active Directory is another alternative you can use.

References: <https://samlman.wordpress.com/2015/03/02/using-azure-active-directory-for-single-sign-on- withyammer/>

QUESTION 46

A company has a very large dataset that includes sensitive information. The dataset is over 30 TB in size.

You have a standard business-class ISP internet connection that is rated at 100 megabits/second.

You have 10 4-TB hard drives that are approved to work with the Azure Import/Export Service. You need to migrate the dataset to Azure.

The solution must meet the following requirements:

- The dataset must be transmitted securely to Azure.
- Network bandwidth must not increase. ▪

Hardware costs must be minimized.

What should you do?

- A. Prepare the drives with the Azure Import/Export tool and then create the import job. Ship the drives to Microsoft via a supported carrier service.
- B. Create an export job and then encrypt the data on the drives by using the Advanced Encryption Standard (AES). Create a destination Blob to store the export data.
- C. Create an import job and then encrypt the data on the drives by using the Advanced Encryption Standard (AES). Create a destination Blob to store the import data.
- D. Prepare the drives by using Sysprep.exe and then create the import job. Ship the drives to Microsoft via a supported carrier service.

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

You can use the Microsoft Azure Import/Export service to transfer large amounts of file data to Azure Blob storage in situations where uploading over the network is prohibitively expensive or not feasible.

References: <http://azure.microsoft.com/en-gb/documentation/articles/storage-import-export-service/>

QUESTION 47

You are designing a Windows Azure application that will use Windows Azure Table storage. The application will allow teams of users to collaborate on projects.

Each user is a member of only one team. You have the following requirements:

- Ensure that each user can efficiently query records related to his or her team's projects. ▪
- Minimize data access latency.

You need to recommend an approach for partitioning table storage entities. What should you recommend?

- A. Partition by user.
- B. Partition by team.
- C. Partition by project.
- D. Partition by the current date.

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

References: <https://docs.microsoft.com/en-us/rest/api/storageservices/designing-a-scalable-partitioning-strategy-for-azure-table-storage>

QUESTION 48

You are designing a Windows Azure application that will store data in two SQL Azure databases. The application will insert data in both databases as part of a single logical operation.

You need to recommend an approach for maintaining data consistency across the databases.

What should you recommend?

- A. Execute database calls on parallel threads.
- B. Wrap the database calls in a single transaction scope.
- C. Use Microsoft Distributed Transaction Coordinator (MSDTC).
- D. Handle errors resulting from the database calls by using compensatory logic.

Correct Answer: D

Section: [none]

Explanation

Explanation/Reference:

References: <https://msdn.microsoft.com/en-us/library/dn589800.aspx>

QUESTION 49

You are designing a Windows Azure application.

The application includes two web roles and three instances of a worker role.

The web roles will send requests to the worker role through one or more Windows Azure Queues. You have the following requirements:

- Ensure that each request is processed exactly one time.
- Minimize the idle time of each worker role instance. ▪

Maximize the reliability of request processing.

You need to recommend a queue design for sending requests to the worker role.

What should you recommend?

- A. Create a single queue.
Send requests on the single queue.
- B. Create a queue for each web role.
Send requests on all queues at the same time.
- C. Create a queue for each worker role instance.
Send requests on each worker queue in a round robin.
- D. Create a queue for each combination of web roles and worker role instances. Send requests to all worker role instances based on the sending web role.

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

QUESTION 50

You are designing a plan for testing a Windows Azure service.

The service runs in the development fabric but fails on Windows Azure.

You need to recommend an approach for identifying errors that occur when the service runs on Windows Azure.

What should you recommend?

- A. Attach a debugger to the Windows Azure role instance.
- B. Analyze debugging information captured by Windows Azure Diagnostics.
- C. Modify the service configuration for the Windows Azure role to access development storage.
- D. Analyze debugging information written to the output window of the Windows Azure role instance.

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

The Azure Diagnostics extension is an agent within Azure that enables the collection of diagnostic data on a deployed application. You can use the diagnostics extension from a number of different sources. Currently supported are Azure Cloud Service (classic) Web and Worker Roles, Virtual Machines, Virtual Machine Scale sets, and Service Fabric.

References: <https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/azure-diagnostics>

QUESTION 51

You are designing a plan to migrate an existing application to Windows Azure. The application currently resides on a server that has 20 GB of hard disk space.

You need to recommend the smallest compute instance size that provides local storage equivalent to that of the existing server.

Which size should you recommend?

- A. ExtraSmall
- B. ExtraLarge
- C. Small
- D. Large

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

A-series

Size	CPU cores	Memory: GiB	Temporary Storage: GiB	Max NICs / Network bandwidth
ExtraSmall	1	0.768	20	1 / low
Small	1	1.75	225	1 / moderate
Medium	2	3.5	490	1 / moderate
Large	4	7	1000	2 / high
ExtraLarge	8	14	2040	4 / high

References: <https://docs.microsoft.com/en-us/azure/cloud-services/cloud-services-sizes-specs#a-series>

QUESTION 52

You administer a set of virtual machine (VM) guests hosted in Hyper-V on Windows Server 2012 R2.

The virtual machines run the following operating systems:

- Windows Server 2008

- Windows Server 2008 R2 ▪
- Linux (openSUSE 13.1)

All guests currently are provisioned with one or more network interfaces with static bindings and VHDX disks.

You need to move the VMs to Azure Virtual Machines hosted in an Azure subscription.

Which three actions should you perform? Each correct answer presents part of the solution.

- A. Install the WALinuxAgent on Linux servers.
- B. Ensure that all servers can acquire an IP by means of Dynamic Host Configuration Protocol (DHCP).
- C. Upgrade all Windows VMs to Windows Server 2008 R2 or higher.
- D. Sysprep all Windows servers.
- E. Convert the existing virtual disks to the virtual hard disk (VHD) format.

Correct Answer: ACE

Section: [none]

Explanation

Explanation/Reference:

A: You need to install the the Azure Linux Agent.

C: Windows Server 2008 R2 and later versions are supported.

E: The VHDX format is not supported in Azure, only fixed VHD. You can convert the disk to VHD format using Hyper-V Manager or the convert-vhd cmdlet.

References: <https://docs.microsoft.com/en-us/azure/virtual-machines/linux/suse-create-upload-vhd#prerequisites> <https://support.microsoft.com/en-us/help/2721672/microsoft-server-software-support-for-microsoft-azure-virtual-machines>

QUESTION 53

A company creates an API and makes it accessible on an Azure website. External partners use the API occasionally. The website uses the Standard web hosting plan.

Partners report that the first API call in a sequence of API calls occasionally takes longer than expected to run. Subsequent API calls consistently perform as expected.

You need to ensure that all API calls perform consistently.

What should you do?

- A. Configure the website to use the Basic web hosting plan.
- B. Enable Always On support.

- C. Configure the website to automatically scale.
- D. Add a trigger to the web.config file for the website that causes the website to recycle periodically.

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Always On. By default, web apps are unloaded if they are idle for some period of time. This lets the system conserve resources. In Basic or Standard mode, you can enable Always On to keep the app loaded all the time. If your app runs continuous WebJobs or runs WebJobs triggered using a CRON expression, you should enable Always On, or the web jobs may not run reliably.

References: <https://docs.microsoft.com/en-us/azure/app-service/web-sites-configure>

QUESTION 54

HOTSPOT

You have a cloud service that runs an external process that is named MyStartupTask.cmd. The cloud service runs this external process when the web role starts. The external process writes information to the Windows registry.

You set the value of an environment variable named MyID to the deployment ID for the current web role instance.

The external process must complete writing the information to the Windows registry before the web role starts to accept web traffic.

You need to configure the cloud service.

How should you complete the relevant markup? To answer, select the appropriate option or options in the answer area.

Hot Area:

Answer Area

```
<Startup>
  <Task commandLine="MyStartupTask.cmd"
```

	▼
executionContext="elevated" taskType="simple"	
executionContext="limited" taskType="foreground"	
executionContext="elevated" taskType="foreground"	
executionContext="elevated" taskType="background"	

```
<Environment>
  <Variable name="MyId">
```

	▼
<PoleInstanceValue xpath="/RoleEnvironment/Deployment/@id"/>	
<PoleInstanceValue xpath="/DeploymentId"/>	
<PoleEnvironment.DeploymentId></Value>	
<value>@DeploymentId</Value>	

```
</Variable>
</Environment>
</Task>
</Startup>
```

Correct Answer:



Answer Area

```
<Startup>
  <Task commandLine="MyStartupTask.cmd"
```

▼
executionContext="elevated" taskType="simple"
executionContext="limited" taskType="foreground"
executionContext="elevated" taskType="foreground"
executionContext="elevated" taskType="background"

```
<Environment>
  <Variable name="MyId">
```

▼
<PoleInstanceValue xpath="/RoleEnvironment/Deployment/@id"/>
<PoleInstanceValue xpath="/DeploymentId"/>
<PoleEnvironment.DeploymentId></Value>
<value>@DeploymentId</Value>

```
</Variable>
</Environment>
</Task>
</Startup>
```

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Box 1: Simple

Use the appropriate taskType

The taskType attribute determines the way the startup task is executed. There are three values: simple, background, and foreground. The background and foreground tasks are started asynchronously, and then the simple tasks are executed synchronously one at a time.

With simple startup tasks, you can set the order in which the tasks run by the order in which the tasks are listed in the ServiceDefinition.csdef file. If a simple task ends with a non-zero exit code, then the startup procedure stops and the role does not start.

Box 2:

Variables can also use a valid Azure XPath value to reference something about the deployment. Instead of using the value attribute, define a RoleInstanceValue child element.

Example code:

```
<Variable name="PathToStartupStorage">  
  <RoleInstanceValue xpath="/RoleEnvironment/CurrentInstance/LocalResources/LocalResource[@name='StartupLocalStorage']/@path" />  
</Variable>
```

References: <https://docs.microsoft.com/en-us/azure/cloud-services/cloud-services-startup-tasks-common>

QUESTION 55

You manage a virtual Windows Server 2012 web server that is hosted by an on-premises Windows Hyper-V server. You plan to use the virtual machine (VM) in Azure.

You need to migrate the VM to Azure Storage to add it to your repository.

Which Azure Power Shell cmdlet should you use?

- A. Import-AzureVM
- B. New-AzureVM
- C. Add-AzureDisk
- D. Add-AzureWebRole
- E. Add-AzureVhd

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

The Add-AzureDisk cmdlet adds a new disk to the Azure disk repository in the current subscription.

References: <http://msdn.microsoft.com/en-us/library/azure/dn495252.aspx>

QUESTION 56

Your company network has two physical locations configured in a geo-clustered environment. You create a Blob storage account in Azure that contains all the data associated with your company.

You need to ensure that the data remains available in the event of a site outage.

Which storage option should you enable?

- A. Locally redundant storage
- B. Geo-redundant storage
- C. Zone-redundant storage
- D. Read-only geo-redundant storage



Correct Answer: D

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Introducing Read-only Access to Geo Redundant Storage (RA-GRS):

RA-GRS allows you to have higher read availability for your storage account by providing "read only" access to the data replicated to the secondary location. Once you enable this feature, the secondary location may be used to achieve higher availability in the event the data is not available in the primary region. This is an "optin" feature which requires the storage account be geo-replicated.

References: <https://blogs.msdn.microsoft.com/windowsazurestorage/2013/12/11/windows-azure-storage-redundancy-options-and-read-access-geo-redundantstorage/>

QUESTION 57

Your company is launching a public website that allows users to stream videos.

You upload multiple video files to an Azure storage container.

You need to give anonymous users read access to all of the video files in the storage container.

What should you do?

- A. Edit each blob's metadata and set the access policy to Public Blob.
- B. Edit the container metadata and set the access policy to Public Container.
- C. Move the files into a container sub-directory and set the directory access level to Public Blob.
- D. Edit the container metadata and set the access policy to Public Blob.

Correct Answer: D

Section: [none]

Explanation

Explanation/Reference:

Explanation:

By default, the container is private and can be accessed only by the account owner.

To allow public read access to the blobs in the container, but not the container properties and metadata, use the "Public Blob" option. To allow full public read access for the container and blobs, use the "Public Container" option.

References: <https://azure.microsoft.com/en-gb/documentation/articles/storage-manage-access-to-resources/>

QUESTION 58

Your network environment includes remote employees.

You need to create a secure connection for the remote employees who require access to your Azure virtual network.

What should you do?

- A. Deploy Windows Server 2012 RRAS.
- B. Configure a point-to-site VPN.
- C. Configure an ExpressRoute.
- D. Configure a site-to-site VPN.

Correct Answer: B

Section: [none]

Explanation

Explanation/Reference:

Explanation:

New Point-To-Site Connectivity

With today's release we've added an awesome new feature that allows you to setup VPN connections between individual computers and a Windows Azure virtual network without the need for a VPN device. We call this feature Point-to-Site Virtual Private Networking. This feature greatly simplifies setting up secure connections between Windows Azure and client machines, whether from your office environment or from remote locations.

It is especially useful for developers who want to connect to a Windows Azure Virtual Network (and to the individual virtual machines within it) from either behind their corporate firewall or a remote location. Because it is point-to-site they do not need their IT staff to perform any activities to enable it, and no VPN hardware needs to be installed or configured. Instead you can just use the built-in Windows VPN client to tunnel to your Virtual Network in Windows Azure.

References: <http://azure.microsoft.com/blog/2013/04/26/virtual-network-adds-new-capabilities-for-crosspremises-connectivity/>

QUESTION 59

You administer an Azure Storage account with a blob container.

You enable Storage account logging for read, write and delete requests. You need to reduce the costs associated with storing the logs.

What should you do?

- A. Execute Delete Blob requests over https.
- B. Create an export job for your container.
- C. Set up a retention policy.
- D. Execute Delete Blob requests over http.

Correct Answer: C

Section: [none]

Explanation



Explanation/Reference:

Explanation:

To ease the management of your logs, we have provided the functionality of retention policy which will automatically cleanup `old' logs without you being charged for the cleanup. It is recommended that you set a retention policy for logs such that your analytics data will be within the 20TB limit allowed for analytics data (logs and metrics combined).

References: <http://blogs.msdn.com/b/windowsazurestorage/archive/2011/08/03/windows-azure-storage-logging-using-logs-to-track-storage-requests.aspx>

QUESTION 60

You connect to an existing service over the network by using HTTP. The service listens on HTTP port 80. You plan to create a test environment for this existing service by using an Azure virtual machine (VM) that runs Windows Server.

The service must be accessible from the public Internet over HTTP port 8080. You need to configure the test environment.

Which two actions should you take? Each correct answer presents part of the solution.

- A. Configure an endpoint to route traffic from port 8080 to port 80.
- B. Configure an endpoint to route traffic from port 80 to port 8080.

- C. Ensure that the public IP address is configured as a static IP address.
- D. Configure the Windows Server firewall to allow incoming and outgoing traffic on port 8080.
- E. Configure the Windows Server firewall to allow incoming and outgoing traffic on port 80.

Correct Answer: AE

Section: [none]

Explanation

Explanation/Reference:

QUESTION 61

Your company network includes two branch offices. Users at the company access internal virtual machines (VMs).

You want to ensure secure communications between the branch offices and the internal VMs and network.

You need to create a site-to-site VPN connection.

What are two possible ways to achieve this goal? Each correct answer presents a complete solution.

- A. a private IPv4 IP address and a compatible VPN device
- B. a private IPv4 IP address and a RRAS running on Windows Server 2012
- C. a public-facing IPv4 IP address and a compatible VPN device
- D. a public-facing IPv4 IP address and a RRAS running on Windows Server 2012

Correct Answer: CD

Section: [none]

Explanation

Explanation/Reference:

Explanation:

C (not A): VPN Device IP Address - This is public facing IPv4 address of your on-premises VPN device that you'll use to connect to Azure. The VPN device cannot be located behind a NAT.

D (Not B): At least one or preferably two publicly visible IP addresses: One of the IP addresses is used on the Windows Server 2012 machine that acts as the VPN device by using RRAS.

The other optional IP address is to be used as the Default gateway for out- bound traffic from the on-premises network. If the second IP address is not available, it is possible to configure network address translation (NAT) on the RRAS machine itself, to be discussed in the following sections. It is important to note that the IP addresses must be public. They cannot be behind NAT and/or a firewall.

QUESTION 62

You manage a web application published to Azure Cloud Services.

Your service level agreement (SLA) requires that you are notified in the event of poor performance from customer locations in the US, Asia, and Europe.

You need to configure the Azure Management Portal to notify you when the SLA performance targets are not met.

What should you do?

- A. Create an alert rule to monitor web endpoints.
- B. Create a Notification Hub alert with response time metrics.
- C. Add an endpoint monitor and alert rule to the Notification Hub.
- D. Configure the performance counter on the cloud service.

Correct Answer: A

Section: [none]

Explanation

Explanation/Reference:

Explanation:

▪ An alert rule enables you to monitor an available metric within a supported Azure service. When the value of a specified metric violates the threshold assigned for a rule, the alert rule becomes active and registers an alert. When you create an alert rule, you can select options to send an email notification to the service administrator and co-administrators, or another administrator, when the rule becomes active, and when an alert condition is resolved. ▪ You can configure cloud service alert rules on: Web endpoint status metrics

Monitoring metrics from the cloud service host operating system Performance counters collected from the cloud service guest virtual machine

References: <http://msdn.microsoft.com/en-us/library/azure/dn306639.aspx>

QUESTION 63

Your company has recently signed up for Azure.

You plan to register a Data Protection Manager (DPM) server with the Azure Backup service. You need to recommend a method for registering the DPM server with the Azure Backup vault.

What are two possible ways to achieve this goal? Each correct answer presents a complete solution.

- A. Import a self-signed certificate created using the makecert tool.
- B. Import a self-signed certificate created using the createcert tool.
- C. Import an X.509 v3 certificate with valid clientauthentication EKU.
- D. Import an X.509 v3 certificate with valid serverauthentication EKU.

Correct Answer: AC

Section: [none]

Explanation

Explanation/Reference:

Explanation:

A: You can create a self-signed certificate using the makecert tool, or use any valid SSL certificate issued by a Certification Authority (CA) trusted by Microsoft, whose root certificates are distributed via the Microsoft Root Certificate Program. C: The certificate must have a valid ClientAuthentication EKU.

References: <http://technet.microsoft.com/en-us/library/dn296608.aspx>

QUESTION 64

Your company plans to migrate from On-Premises Exchange to Exchange Online in Office 365.

You plan to integrate your existing Active Directory Domain Services (AD DS) infrastructure with Azure AD.

You need to ensure that users can log in by using their existing AD DS accounts and passwords. You need to achieve this goal by using minimal additional systems.

Which two actions should you perform? Each answer presents part of the solution.

- A. Configure Password Sync.
- B. Set up a DirSync Server.
- C. Set up an Active Directory Federation Services Server.
- D. Set up an Active Directory Federation Services Proxy Server.

Correct Answer: BC

Section: [none]

Explanation

Explanation/Reference:

Azure Active Directory (AD) Connect (formerly known as the Directory Synchronization tool, Directory Sync tool, or the DirSync.exe tool) is a server-based application that you install on a domain-joined server to synchronize your on-premises Windows Server Active Directory users to the Azure Active Directory tenant of your Office 365 subscription.

Note: This question is outdated.

References: <https://docs.microsoft.com/en-us/azure/active-directory/connect/active-directory-aadconnect- dirsync-upgrade-get-started>

QUESTION 65

You develop a set of Power Shell scripts that will run when you deploy new virtual machines (VMs).

You need to ensure that the scripts are executed on new VMs.

You want to achieve this goal by using the least amount of administrative effort.

What should you do?

- A. Create a new GPO to execute the scripts as a logon script.
- B. Create a SetupComplete.cmd batch file to call the scripts after the VM starts.
- C. Create a new virtual hard disk (VHD) that contains the scripts.
- D. Load the scripts to a common file share accessible by the VMs.
- E. Set the VMs to execute a custom script extension.

Correct Answer: E

Section: [none]

Explanation

Explanation/Reference:

Explanation:

After you deploy a Virtual Machine you typically need to make some changes before it's ready to use. This is something you can do manually or you could use Remote PowerShell to automate the configuration of your VM after deployment for example.

But now there's a third alternative available allowing you customize your VM: the CustomScript extension.

This CustomScript extension is executed by the VM Agent and it's very straightforward: you specify which files it needs to download from your storage account and which file it needs to execute. You can even specify arguments that need to be passed to the script. The only requirement is that you execute a .ps1 file.

References: <http://fabriccontroller.net/customizing-your-microsoft-azure-virtual-machines-with-the-new-customscript-extension/>

QUESTION 66

HOTSPOT

You use the Windows PowerShell Desired State Configuration (DSC) feature to configure your company's servers. Line numbers are included for reference only.

```
01 $ConfigurationData = @{
02     AllNodes = @(
03         @{NodeName = 'Server1';Role='Web'},
04         @{NodeName = 'Server2';Role='FileShare'}
05         @{NodeName = 'Server3';Role=@('FileShare','Web')}
06     )
07 }
08 configuration RoleConfiguration
09 {
10     param ($Roles)
11     switch ($Roles)
12     {
13         'FileShare'
14         {
15             WindowsFeature FileSharing
16             {
17                 Name = 'FS-FileServer'
18             }
19         }
20         'Web'
21         {
22             WindowsFeature Web
23             {
24                 Name = 'Web-Server'
25                 Ensure = 'Absent'
26             }
27         }
28     }
29 }
30 configuration MyFirstServerConfig
31 {
32     node $allnodes.NodeName
33     {
34         WindowsFeature snmp
35         {
36             Name = 'SNMP-Service'
37         }
38         RoleConfiguration MyServerRoles
39         {
40             Roles = $Node.Role
41             DependsOn = '[WindowsFeature]snmp'
42         }
43     }
44 }
```





<https://vceplus.com/>

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Hot Area:

Answer Area

	Yes	No
The script configures SNMP service on all servers.	<input type="radio"/>	<input type="radio"/>
The script configures the Web Server (IIS) role on Server3.	<input type="radio"/>	<input type="radio"/>
Invoking the script within Windows PowerShell applies the desired state to all servers.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

	Yes	No
The script configures SNMP service on all servers.	<input type="radio"/>	<input checked="" type="radio"/>
The script configures the Web Server (IIS) role on Server3.	<input type="radio"/>	<input checked="" type="radio"/>
Invoking the script within Windows PowerShell applies the desired state to all servers.	<input checked="" type="radio"/>	<input type="radio"/>

Section: [none]

Explanation

Explanation/Reference:

QUESTION 67

You manage a set of virtual machines (VMs) deployed to the cloud service named fabrikamVM. You configure auto scaling according to the following parameters:

- With an instance range of two to six instances
- To maintain CPU usage between 70 and 80 percent
- To scale up one instance at a time
- With a scale up wait time of 30 minutes
- To scale down one instance at a time
- With a scale down wait time of 30 minutes

You discover the following usage pattern of a specific application:

The application peaks very quickly, and the peak lasts for several hours.

CPU usage stays above 90 percent for the first 1 to 1.5 hours after usage increases.

After 1.5 hours, the CPU usage falls to about 75 percent until application usage begins to decline. You need to modify the auto scaling configuration to scale up faster when usage peaks.

What are two possible ways to achieve this goal? Each correct answer presents a complete solution.

- A. Decrease the scale down wait time.
- B. Decrease the scale up wait time.
- C. Increase the number of scale up instances.
- D. Increase the scale up wait time.
- E. Increase the maximum number of instances.

Correct Answer: BC

Section: [none]

Explanation

Explanation/Reference:

QUESTION 68

You manage a cloud service that has a web role named fabWeb.

You create a virtual network named fabVNet that has two subnets defined as Web and Apps. You need to be able to deploy fabWeb into the Web subnet.

What should you do?

- A. Modify the service definition (csdef) for the cloud service.
- B. Run the Set-AzureSubnet PowerShell cmdlet.
- C. Run the Set-AzureVNetConfig PowerShell cmdlet.
- D. Modify the network configuration file.
- E. Modify the service configuration (cscfg) for the fabWeb web role.

Correct Answer: E

Section: [none]

Explanation

Explanation/Reference:

Explanation:

To deploy a cloud service into the Apps subnet in the virtual network, you need to add an element to the cloud service configuration file with settings identifying the Apps subnet in the virtual network.

When the cloud service with this configuration is deployed, Azure will identify the network configuration and provision the virtual machine instances in the Apps subnet.

References: <https://outereinthe field.wordpress.com/2014/05/23/adding-a-windows-azure-cloud-service-to- virtual-network/>

QUESTION 69

You administer an Azure Active Directory (Azure AD) tenant where Box is configured for:

- Application Access
- Password Single Sign-on

An employee moves to an organizational unit that does not require access to Box through the Access Panel.

You need to remove only Box from the list of applications only for this user.

What should you do?

- A. Delete the user from the Azure AD tenant.
- B. Delete the Box Application definition from the Azure AD tenant.
- C. From the Management Portal, remove the user's assignment to the application.
- D. Disable the user's account in Windows AD.

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Note: Use Azure AD to manage user access, provision user accounts, and enable single sign-on with Box. Requires an existing Box subscription.

QUESTION 70

You administer a cloud service.

You plan to host two web applications named contosoweb and contosoweb support.

You need to ensure that you can host both applications and qualify for the Azure Service Level Agreement.

You want to achieve this goal while minimizing costs. How should you host both applications?

- A. in different web roles with two instances in each web role
- B. in the same web role with two instances
- C. in different web roles with one instance in each web role
- D. in the same web role with one instance

Correct Answer: B

Section: [none]

Explanation

**Explanation/Reference:**

Explanation:

A cloud service must have at least two instances of every role to qualify for the Azure Service Level Agreement, which guarantees external connectivity to your Internet-facing roles at least 99.95 percent of the time.

References: <http://azure.microsoft.com/en-us/documentation/articles/cloud-services-what-is/>

QUESTION 71

HOTSPOT

You plan to implement a predictive analytics solution in Azure Machine Learning Studio. You intend to train the solution by using existing data that resides on-premises.

The on-premises data is a collection of delimited text files that total 5GB in size. You need to identify the process of adding the existing data to the solution.

What should you identify? To answer, select the appropriate options in the answer area.

Hot Area:

Answer Area

Upload data into:

	▼
ML Studio	
an Azure SQL Database	

In ML Studio, create:

	▼
a DataSet	
an experiment	

In ML Studio, consume data by using the:

	▼
Add Rows module	
Enter Data module	
Reader module	

Correct Answer:

Answer Area

Upload data into:

	▼
ML Studio	
an Azure SQL Database	

In ML Studio, create:

	▼
a DataSet	
an experiment	

In ML Studio, consume data by using the:

	▼
Add Rows module	
Enter Data module	
Reader module	

Section: [none]

Explanation

Explanation/Reference:

Explanation:

An SQL Data database can be used for the sample data.

After the experiment finishes running successfully, click the output port at the bottom of the Reader module and select Visualize to see the imported data.

References: <https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-get-started-analyze-with-azure-machine-learning>

QUESTION 72

Your company has an Azure subscription.

The company plans to implement an Azure Web App named WebApp1.

You need to recommend a solution to optimize the compute resources consumed by the Web App. The solution must minimize costs and provide a separation of resources.

Which service plan should you recommend?

- A. Basic
- B. Free
- C. PremiumD. Shared
- E. Standard

Correct Answer: C

Section: [none]

Explanation

Explanation/Reference:

Explanation:

Only the Premium service provides App Service Environments which provide the required isolation (separation of resources).

References:

<https://azure.microsoft.com/en-us/pricing/details/app-service/> <https://azure.microsoft.com/en-us/blog/introducing-app-service-environment/>
<https://docs.microsoft.com/en-us/azure/app-service-web/app-service-app-service-environment-intro>



<https://vceplus.com/>