QUESTION 66
Case Study 2 - Contoso, Ltd
Overview
Contoso, Ltd. is a manufacturing company that has 15,000 employees.
The company uses SAP for sales and manufacturing.
Contoso has sales offices in New York and London and manufacturing facilities in Boston and Seattle.
Existing Environment
Active Directory
The network contains an on-premises Active Directory domain named ad.contoso.com. User email addresses use a domain name of contoso.com.
SAP Environment
The current SAP environment contains the following components:
- SAP Solution Manager
- SAP ERP Central Component (SAP ECC)
- SAP Supply Chain Management (SAP SCM)
- SAP application servers that run Windows Server 2008 R2
- SAP HANA database servers that run SUSE Linux Enterprise Server 12 (SLES 12)
Problem Statements
Contoso identifies the following issues in its current environment:
- The SAP HANA environment lacks adequate resources.
- The Windows servers are nearing the end of support.
- The datacenters are at maximum capacity.
Requirements
Planned Changes
Contoso identifies the following planned changes:
- Deploy Azure Virtual WAN.
- Migrate the application servers to Windows Server 2016.
- Deploy ExpressRoute connections to all of the offices and manufacturing facilities.
- Deploy SAP landscapes to Azure for development, quality assurance, and production.
All resources for the production landscape will be in a resource group named SAPProduction.
Business goals
Contoso identifies the following business goals:
- Minimize costs whenever possible.
- Migrate SAP to Azure without causing downtime.
- Ensure that all SAP deployments to Azure are supported by SAP.
- Ensure that all the production databases can withstand the failure of an Azure region.
- Ensure that all the production application servers can restore daily backups from the last 21 days.
Technical Requirements
Contoso identifies the following technical requirements:
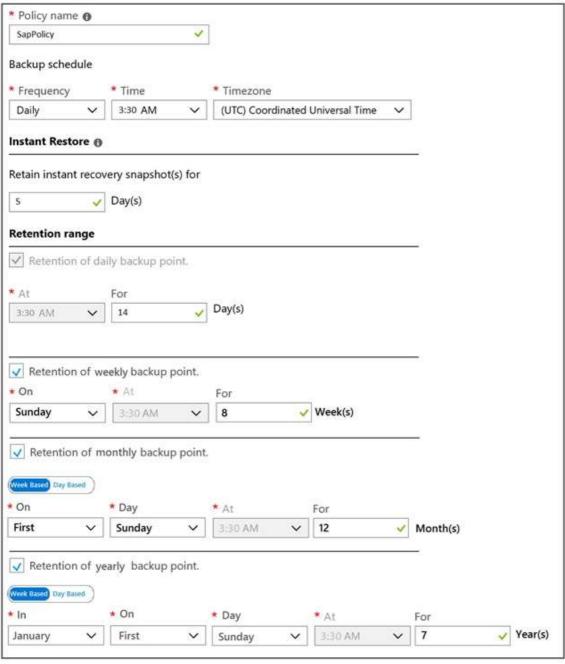- Inspect all web queries.
- Deploy an SAP HANA cluster to two datacenters.

- Minimize the bandwidth used for database synchronization.
- Use Active Directory accounts to administer Azure resources.
- Ensure that each production application server has four 1-TB data disks.
- Ensure that an application server can be restored from a backup created during the last five days within 15 minutes.
- Implement an approval process to ensure that an SAP administrator is notified before another administrator attempts to make changes to the Azure virtual machines that host SAP.

It is estimated that during the migration, the bandwidth required between Azure and the New York office will be 1 Gbps. After the migration, a traffic burst of up to 3 Gbps will occur.

Proposed Backup Policy

An Azure administrator proposes the backup policy shown in the following exhibit.

Azure Resource Manager Template

An Azure administrator provides you with the Azure Resource Manager template that will be used to provision the production application servers.

```json
{
  "apiVersion": "2017-03-30",
  "type": "Microsoft.Compute/virtualMachines",
  "name": "[parameters('vmname')]",

  "location": "EastUS",
  "dependsOn": [
    "[resourceId('Microsoft.Network/networkInterfaces/', parameters('vmname'))]"
  ],
  "properties":{
    "hardwareProfile": {
      "vmSize": "[parameters('vmSize')]"
  },
  "osProfile": {
    "computerName": "[parameters('vmname')]",
    "adminUsername": "[parameters('adminUsername')]",
    "adminPassword": "[parameters('adminPassword')]"
  },
  "storageProfile": {
    "ImageReference": {
      "publisher": "MicrosoftWindowsServer",
      "Offer" : "WindowsServer",
      "sku" : "2016-datacenter",
      "version" : "latest"
    },
    "osDisk": {
      "name": "[concat(parameters('vmname'), '-OS')]",
      "caching": "ReadWrite",
      "createOption": "FromImage",
      "diskSizeGB": 128,
      "managedDisk":{
          "storageAccountType": "[parameters('storageAccountType')]"
      }
    },
    "copy": [
      {
        "name": "DataDisks",
        'count": "[parameters('diskCount')]",
        "input" : {
         "Caching" : "None",
         "diskSizeGB" : 1024,
         "lun": "[copyIndex('datadisks')]",
```

```
            "name": "[concat(parameters('vmname'), '-DD',copyIndex('datadisks'))]",
            "createOption": "Empty"
            }
        }
    ]
    },
    "networkProfile": {
     "networkInterfaces": [
        {
            "id": "[resourceId('Microsoft.Network/networkInterfaces', parameters('vmName'))]"
        }
    ]
    }
    },
    "resources": [
        {
            "apiVersion": "2017-03-30",
            "type": "Microsoft.Compute/virtualMachines/extensions",
            "name": "[concat(parameters('VMName'), '/joindomain')]",
            "location": "eastus",
            "properties": {
              "publisher": "Microsoft.Compute",
              "type": "JsonADDomainExtension",
              "typeHandlerVersion": "1.3",
              "autoUpgradeMinorVersion": true,
              "settings": {
                  "Name": "[parameters('domainName')]",
                  "User": "[parameters('domainusername')]",
                  "Restart": "true",
                  "Options": "3"
              },
              "protectedsettings": {
                  "Password": "[parameters('domainPassword')]"
              }
            }
        }
    ]
}
```

Hotspot Question
You are evaluating the proposed backup policy.
For each of the following statements, select Yes if the statement is true. otherwise, select No.
NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
The backup policy meets the technical requirements.	○	○
The backup policy meets the business requirements.	○	○
If the backup policy is implemented, a deleted file can be restored to the running virtual machine one year after the file was deleted.	○	○

Answer:

Answer Area

Statements	Yes	No
The backup policy meets the technical requirements.	◉	○
The backup policy meets the business requirements.	○	◉
If the backup policy is implemented, a deleted file can be restored to the running virtual machine one year after the file was deleted.	◉	○

Explanation:
Box 1: Yes
Scenario: Technical requirements: Ensure that an application server can be restored from a backup created during the last five days within 15 minutes.
Instant Restore has 'The instance recovery snapshot(s) for 5 Day(s)'.
Box 2: No
Scenario: Ensure that all the production application servers can restore daily backups from the last 21 days.
The Retention of daily backup point is set to for 14 days only.
Box 3: Yes
Reference:
https://docs.microsoft.com/en-us/azure/backup/backup-instant-restore-capability

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- Ensure that all the production application servers can restore daily backups from the last 21 days.

Technical Requirements

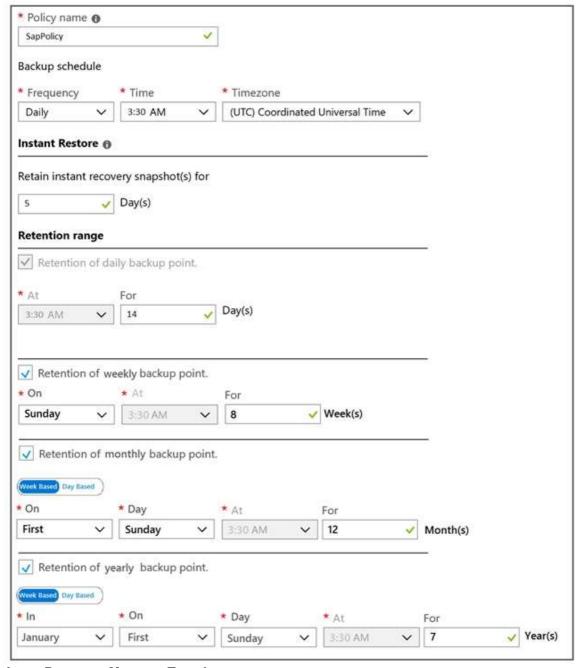Contoso identifies the following technical requirements:
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- Minimize the bandwidth used for database synchronization.
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- Ensure that an application server can be restored from a backup created during the last five days within 15 minutes.
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It is estimated that during the migration, the bandwidth required between Azure and the New York office will be 1 Gbps. After the migration, a traffic burst of up to 3 Gbps will occur.

Proposed Backup Policy

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  "type": "Microsoft.Compute/virtualMachines",
  "name": "[parameters('vmname')]",

  "location": "EastUS",
  "dependsOn": [
    "[resourceId('Microsoft.Network/networkInterfaces/', parameters('vmname'))]"
  ],
  "properties":{
    "hardwareProfile": {
      "vmSize": "[parameters('vmSize')]"
  },
  "osProfile": {
    "computerName": "[parameters('vmname')]",
    "adminUsername": "[parameters('adminUsername')]",
    "adminPassword": "[parameters('adminPassword')]"
  },
  "storageProfile": {
    "ImageReference": {
      "publisher": "MicrosoftWindowsServer",
      "Offer" : "WindowsServer",
      "sku" : "2016-datacenter",
      "version" : "latest"
    },
    "osDisk": {
      "name": "[concat(parameters('vmname'), '-OS')]",
      "caching": "ReadWrite",
      "createOption": "FromImage",
      "diskSizeGB": 128,
      "managedDisk":{
          "storageAccountType": "[parameters('storageAccountType')]"
      }
    },
    "copy": [
      {
        "name": "DataDisks",
        "count": "[parameters('diskCount')]",
        "input" : {
         "Caching" : "None",
         "diskSizeGB" : 1024,
         "lun": "[copyIndex('datadisks')]",
```

```
        "name": "[concat(parameters('vmname'), '-DD',copyIndex('datadisks'))]",
        "createOption": "Empty"
        }
      }
    ]
  },
  "networkProfile": {
   "networkInterfaces": [
      {
        "id": "[resourceId('Microsoft.Network/networkInterfaces', parameters('vmName'))]"
      }
    ]
   }
  },
  "resources": [
      {
        "apiVersion": "2017-03-30"
        "type": "Microsoft.Compute/virtualMachines/extensions",
        "name": "[concat(parameters('VMName'), '/joindomain')]",
        "location": "eastus",
        "properties": {
          "publisher": "Microsoft.Compute",
          "type": "JsonADDomainExtension",
          "typeHandlerVersion": "1.3",
          "autoUpgradeMinorVersion": true,
          "settings": {
              "Name": "[parameters('domainName')]",
              "User": "[parameters('domainusername')]",
              "Restart": "true",
              "Options": "3"
          },
          "protectedsettings": {
              "Password": "[parameters('domainPassword')]"
          }
        }
      }
    ]
  }
}
```

You are planning replication of the SAP HANA database for the disaster recovery environment in Azure.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
You must use synchronous replication.	○	○
You must use delta data shipping for operation mode.	○	○
You must configure an Azure Directory (Azure AD) application to manage the failover.	○	○

Answer:

Answer Area

Statements	Yes	No
You must use synchronous replication.	○	◉
You must use delta data shipping for operation mode.	○	◉
You must configure an Azure Directory (Azure AD) application to manage the failover.	◉	○

Explanation:
Box 1: No
SAP HANA Replication consists of one primary node and at least one secondary node. Changes to the data on the primary node are replicated to the secondary node synchronously or asynchronously.
Box 2: No
Since SPS11 SAP HANA system replication can be run in two different operation modes:
delta_datashipping
logreplay
Box 3: Yes
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/workloads/sap/sap-hana-high-availability-rhel
https://blogs.sap.com/2018/01/08/your-sap-on-azure-part-4-high-availability-for-sap-hana-using-system-replication/

QUESTION 68
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 have a complex SAP environment that has both ABAP-and Java-based systems. The current on-premises landscapes are based on SAP NetWeaver 7.0 (Unicode and Non-Unicode) running on Windows Server and Microsoft SQL Server.
You need to migrate the SAP environment to a HANA-certified Azure environment.
Solution: You deploy a new environment to Azure that uses SAP NetWeaver 7.4. You export the databases from the on-premises environment, and then you import the databases into the Azure environment.
Does this meet the goal?

A. Yes
B. No

Answer: B
Explanation:
Instead use Azure Site Recovery to migrate.
Reference:
https://docs.microsoft.com/en-us/azure/site-recovery/vmware-azure-architecture

QUESTION 69
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 have a complex SAP environment that has both ABAP-and Java-based systems. The current on-premises landscapes are based on SAP NetWeaver 7.0 (Unicode and Non-Unicode) running on Windows Server and Microsoft SQL Server.

You need to migrate the SAP environment to a HANA-certified Azure environment.
Solution: You upgrade to SAP NetWeaver 7.4, and then you migrate SAP to Azure by using Azure Site Recovery.
Does this meet the goal?

A. Yes
B. No

Answer: A
Explanation:
We need upgrade to SAP NetWeaver 7.4 before the migration. Then Azure Site Recovery is used for the migration to Azure.
Reference:
https://docs.microsoft.com/en-us/azure/site-recovery/vmware-azure-architecture

QUESTION 70
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.
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You have a complex SAP environment that has both ABAP-and Java-based systems. The current on-premises landscapes are based on SAP NetWeaver 7.0 (Unicode and Non-Unicode) running on Windows Server and Microsoft SQL Server.
You need to migrate the SAP environment to a HANA-certified Azure environment.
Solution: You migrate SAP to Azure by using Azure Site Recovery, and then you upgrade to SAP NetWeaver 7.4.
Does this meet the goal?

A. Yes
B. No

Answer: B
Explanation:
We need upgrade to SAP NetWeaver 7.4 before the migration.
Reference:
https://docs.microsoft.com/en-us/azure/site-recovery/vmware-azure-architecture