

Slide 1 - Zscaler Private Access



Zscaler Private Access

App Connector Installation – Azure

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Slide notes

Welcome to this training module on Zscaler Private Access App Connector installation on Microsoft Azure.

Slide 2 - Navigating the eLearning Module

The screenshot shows the Zscaler Application Performance Management (ZAMP) dashboard. At the top right is the Zscaler logo. Below it, the title "Navigating the eLearning Module" is displayed. A blue callout box labeled "Exit" points to the top right corner of the dashboard window. On the left side of the dashboard, there is a sidebar with icons for Dashboard, Diagnostics, Live Logs, Administration, and Search. The main content area includes several cards: "APPLICATIONS ACCESSED" (15), "DISCOVERED APPLICATIONS" (3), "ACCESS POLICY BLOCKS" (0), and "SUCCESSFUL TRANSACTIONS" (884). Below these cards is a section titled "TOP APPLICATIONS BY BANDWIDTH" with a list of applications and their bandwidth usage:

Application	Bandwidth
172.20.0.26	23.87 MB
qa.gf.local	8.11 MB
crm.gf.local	7.26 MB
intranet.gf.local	6.48 MB
splunk.tn.zscaler.com	3.96 MB
intranet.gf.local	3.38 MB
intranet.safemarch.local	1.82 MB
intranet.safemarch.com	1.80 MB
server01.safemarch.com	1.45 MB
crm.gf.local	1.02 MB

At the bottom of the dashboard, there are sections for "TOP ERRORS", "Connectivity Status Codes", and "Applications". On the far left, there are playback controls: "Play/Pause", "Previous Slide", "Next Slide", and a "Progress Bar". On the right, there are additional controls: "Audio On/Off" and "Closed Captioning".

Slide notes

Here is a quick guide to navigating this module. There are various controls for playback including **Play and Pause**, **Previous** and **Next slide**. You can also **Mute** the audio or enable **Closed Captioning** which will cause a transcript of the module to be displayed on the screen. Finally, you can click the X button at the top to exit.

Slide 3 - Agenda

Agenda

- Installing an App Connector on Microsoft Azure



Slide notes

In this module, we will provide a step-by-step overview of how to install a App Connector on Microsoft Azure.

Slide 4 - Installing a Connector Virtual Appliance



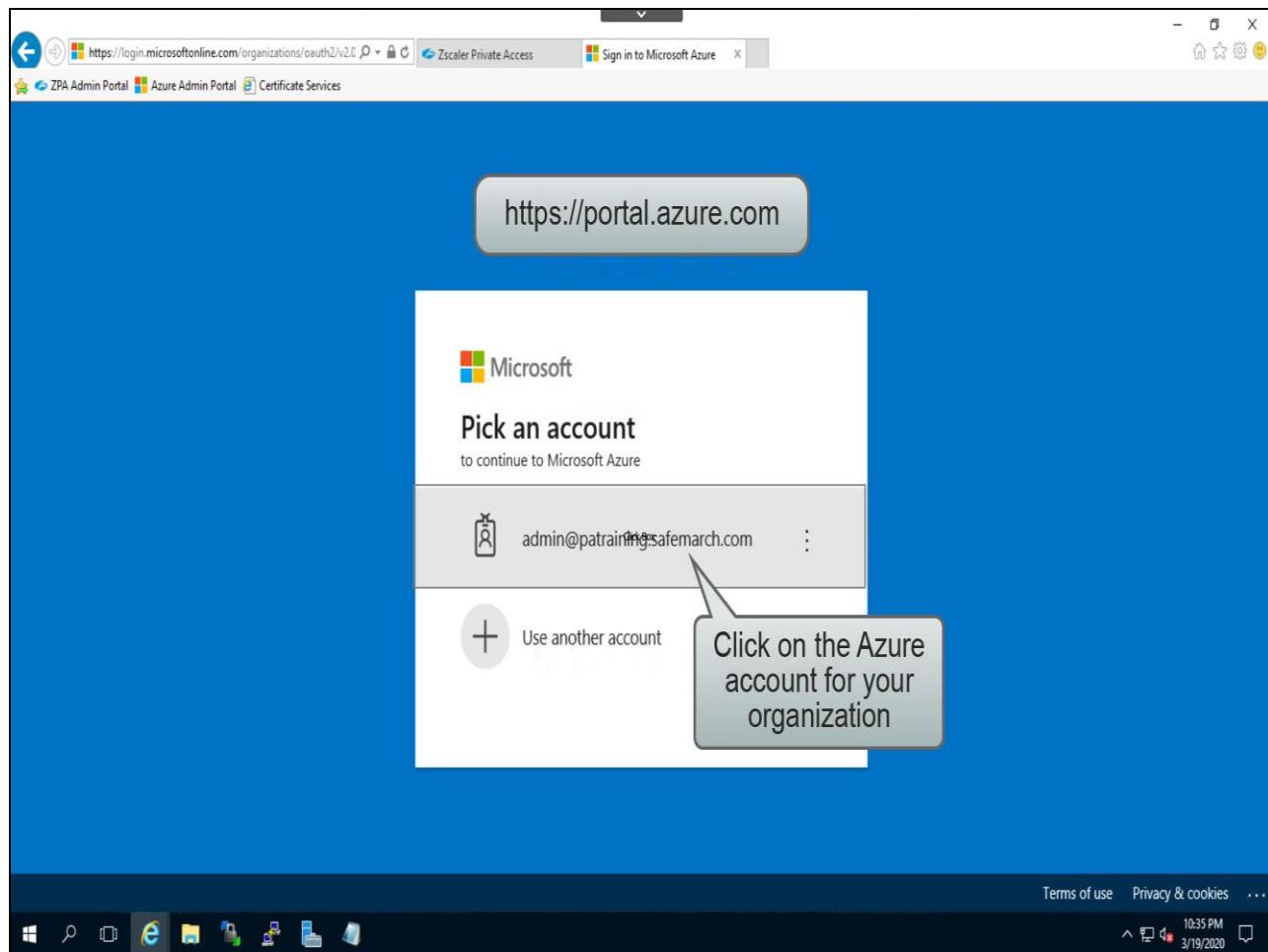
Installing an App Connector on Azure

Slide notes

The next topic that we will cover is how to install a App Connector on Azure.

This section has been created as an interactive demo to give you a feel for the navigation of the Azure Admin Portal. You will be asked to select the appropriate menu options to navigate the UI. You may also use the Play control to proceed to the next step.

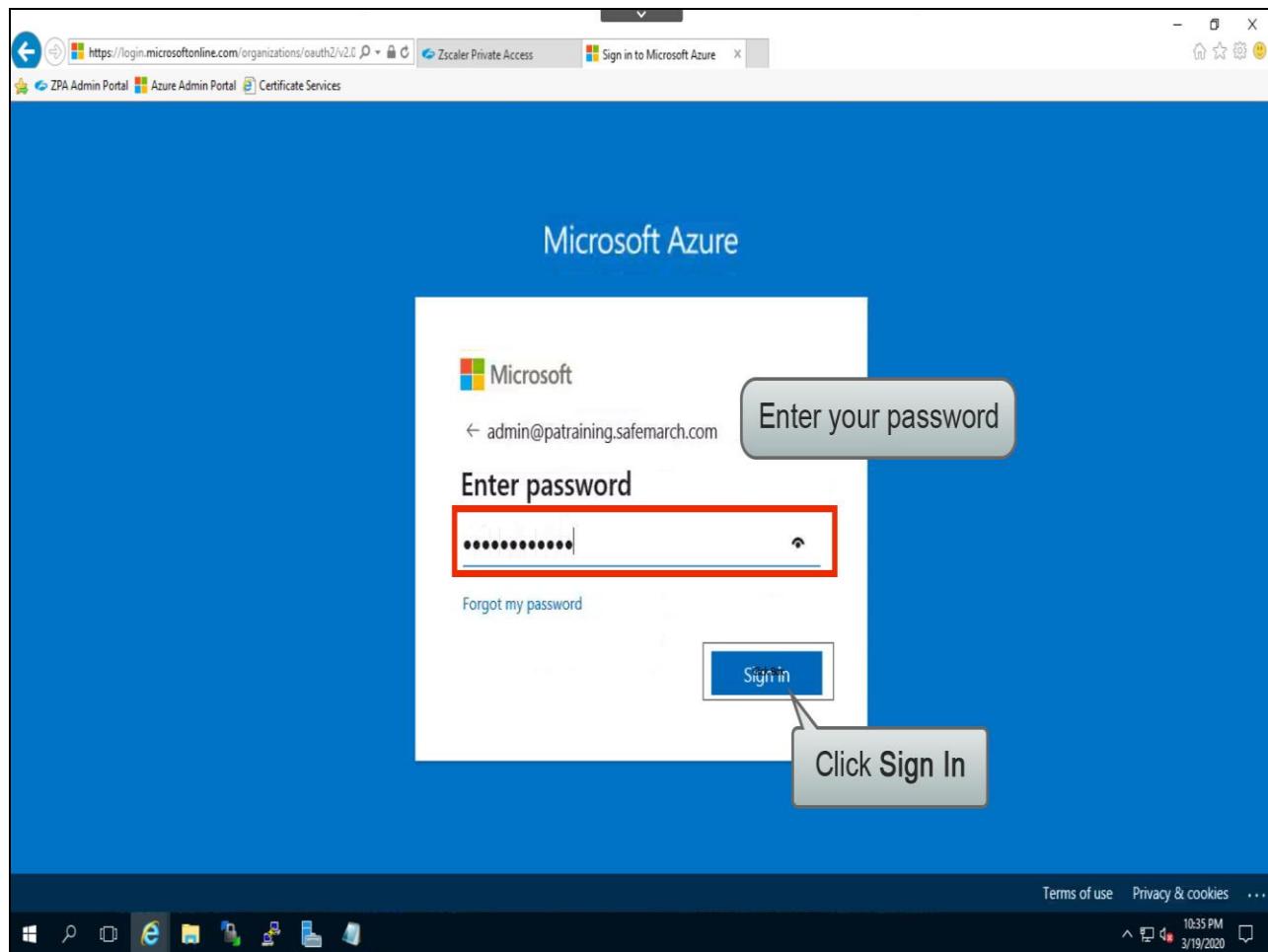
Slide 5 - Slide 5



Slide notes

You of course need to login to the Azure Admin Portal at the URL <https://portal.azure.com>. In this case the account name has been saved from a previous session, so click on it, ...

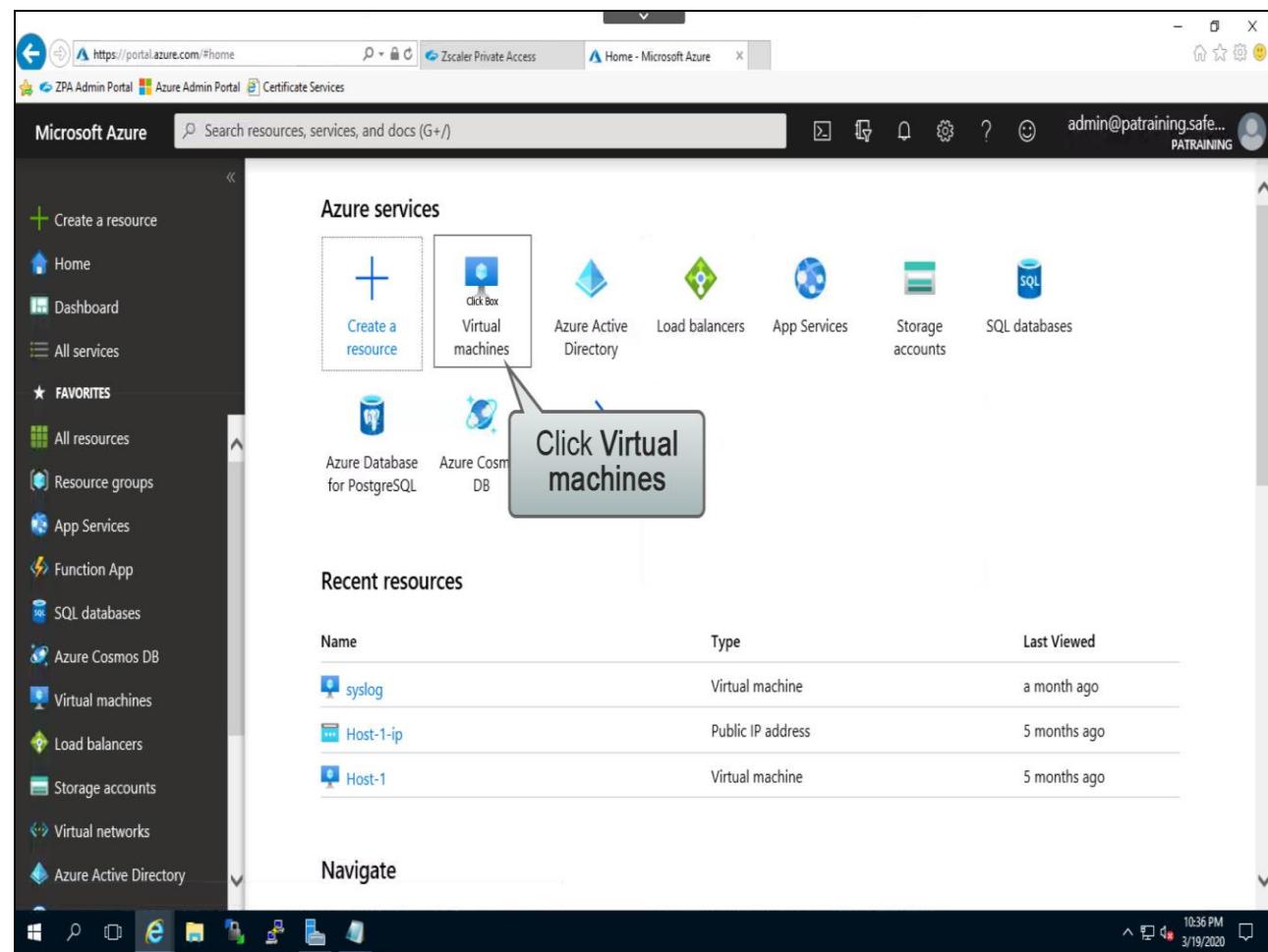
Slide 6 - Slide 6



Slide notes

...enter the password for this user and click **Sign In**.

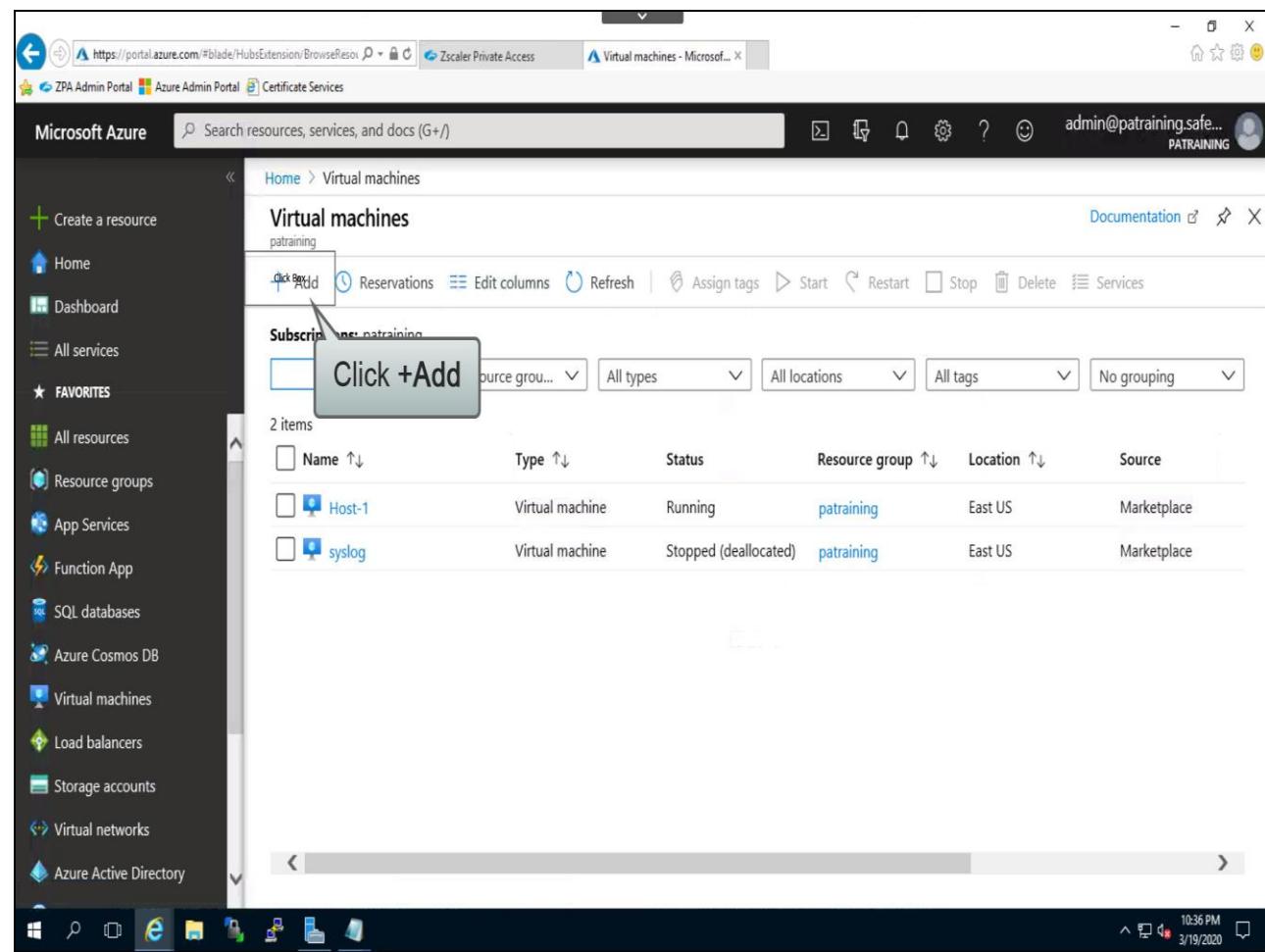
Slide 7 - Slide 7



Slide notes

To add a Connector VM to this environment, click **Virtual Machines**, ...

Slide 8 - Slide 8



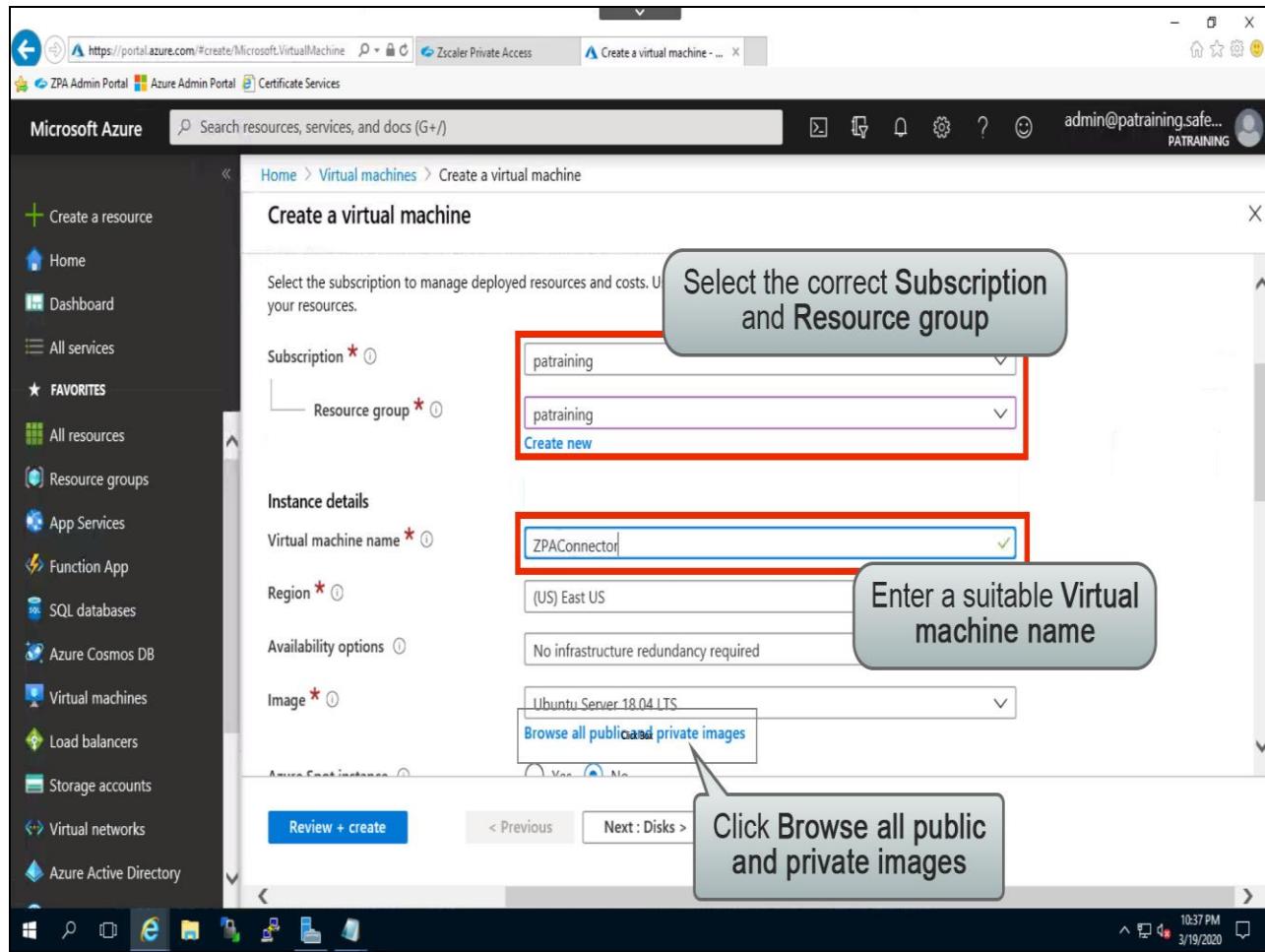
The screenshot shows the Microsoft Azure portal interface. The user is in the 'Virtual machines' section of the 'patraining' subscription. A large, semi-transparent callout box with the text 'Click +Add' is overlaid on the 'Add' button in the top-left corner of the list view. The list displays two virtual machines: 'Host-1' and 'syslog'. The 'Host-1' machine is running in the 'East US' location from the 'Marketplace'. The 'syslog' machine is stopped (deallocated) in the same location.

Name	Type	Status	Resource group	Location	Source
Host-1	Virtual machine	Running	patraining	East US	Marketplace
syslog	Virtual machine	Stopped (deallocated)	patraining	East US	Marketplace

Slide notes

...then click Add.

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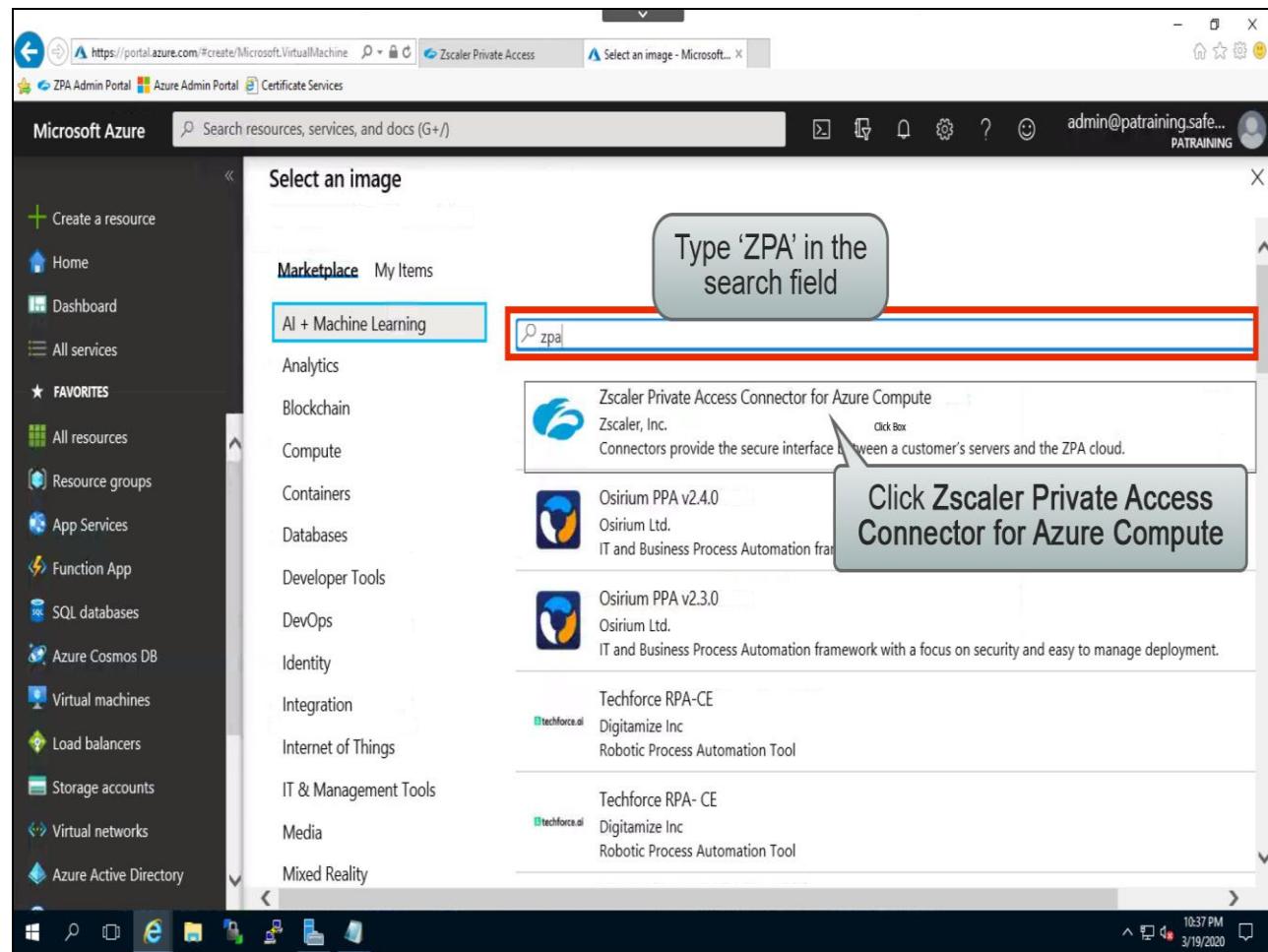


Slide notes

Verify the correct **Subscription** is selected, choose the correct **Resource Group** and give the Connector a suitable **Virtual machine name**. Note the resource group selected here will typically be the group containing the applications that you want this Connector to be able to reach.

To find and select the correct VM image, click the **Browse all public and private images** link, ...

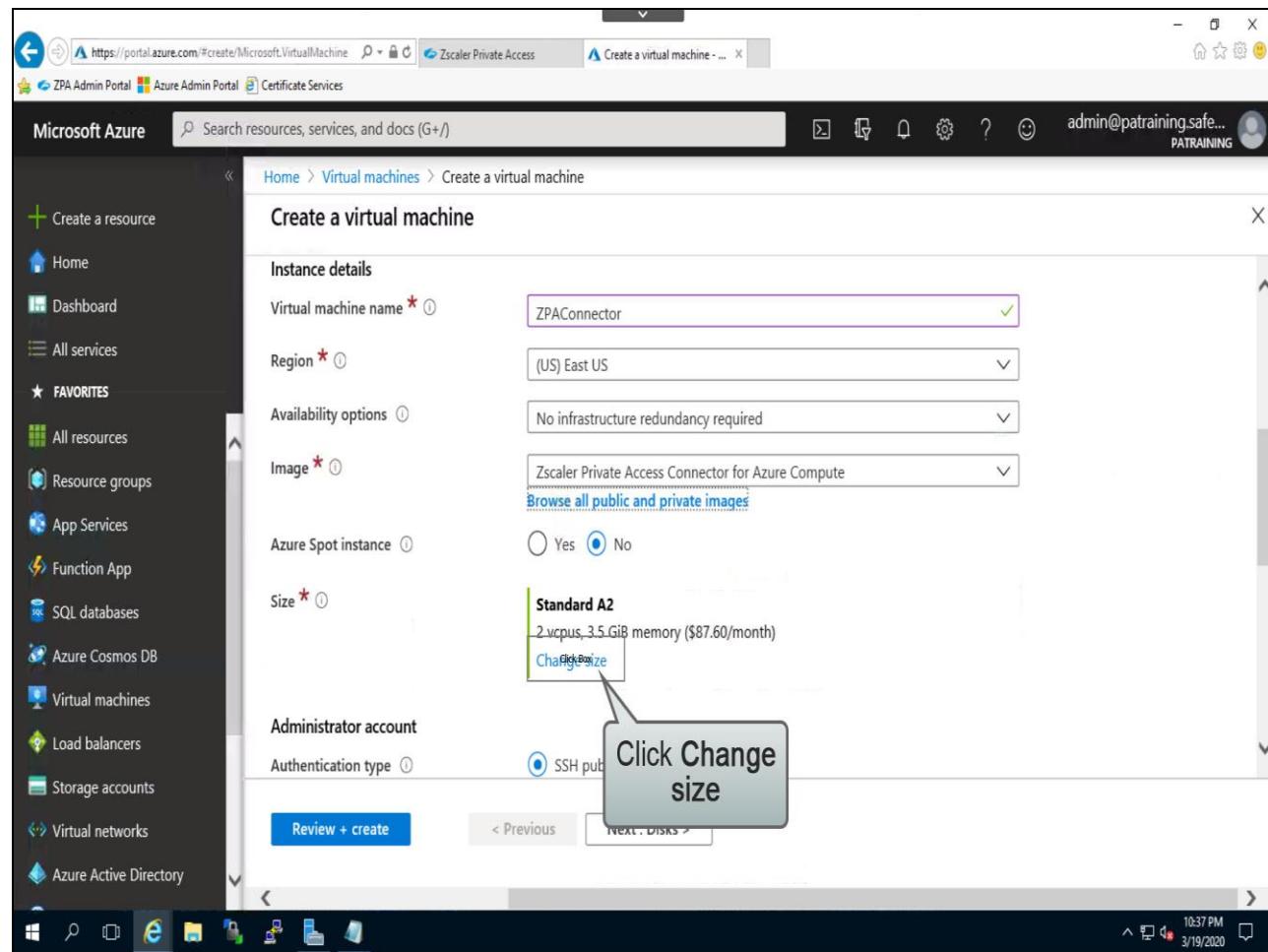
Slide 10 - Slide 10



Slide notes

...enter 'Zscaler' or 'ZPA' in the search field, then click on the VM image named **Zscaler Private Access Connector for Azure Compute**, ...

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Slide notes

To select the correct resources for the VM, click **Change size**, ...

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The screenshot shows the Microsoft Azure portal interface for creating a virtual machine. The user is on the 'Select a VM size' page, which lists various virtual machine sizes. The 'B2s' size is highlighted with a red box and a callout bubble containing the text 'Select the B2s option'. A separate callout bubble with the text 'Click Select' points to the blue 'Select' button at the bottom left of the table. The table includes columns for VM Size, Offering, Family, vCPUs, RAM (GiB), Data disks, Max IOPS, Temporary stor..., and Premium disk.

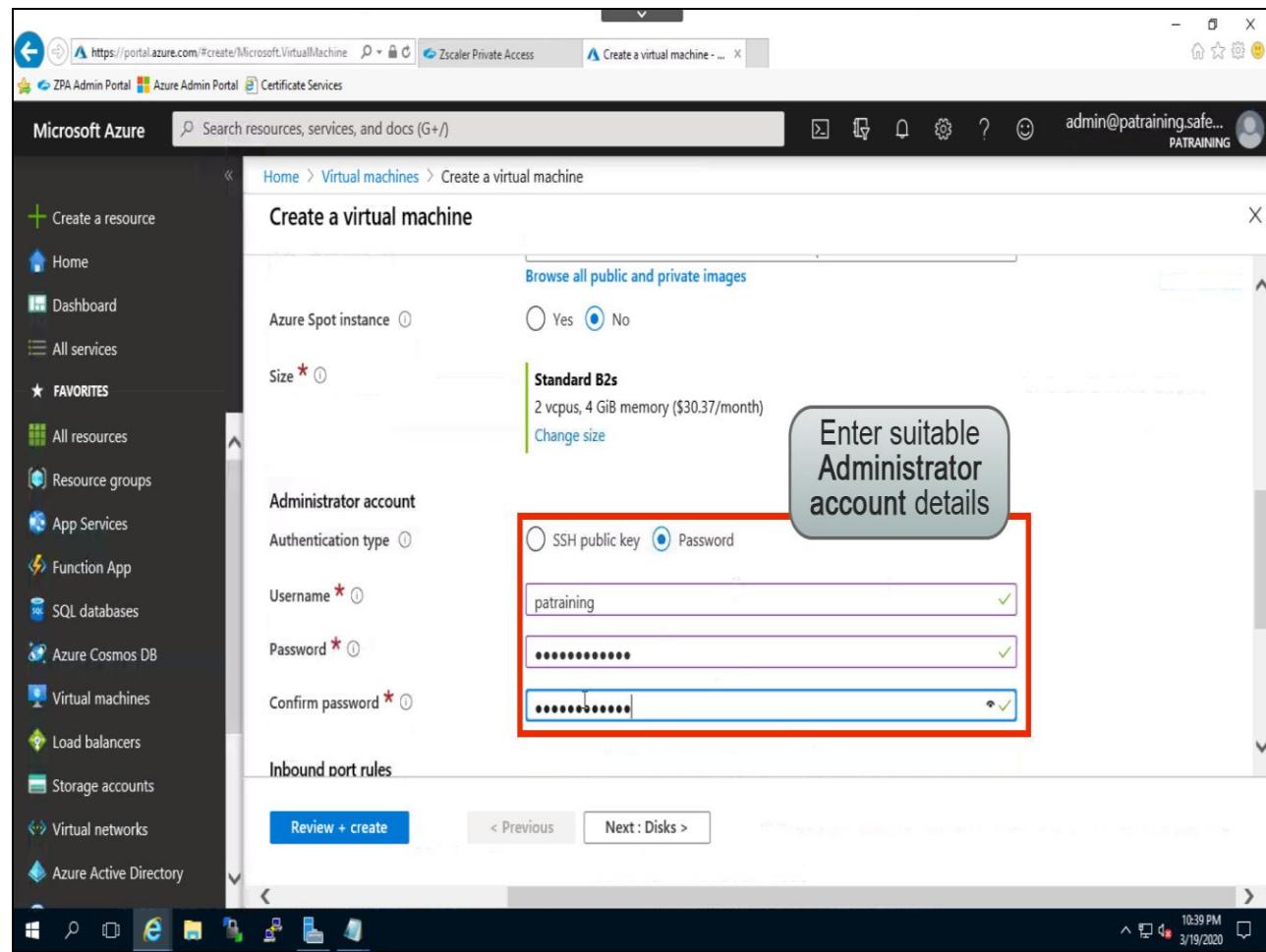
VM Size	Offering	Family	vCPUs	RAM (GiB)	Data disks	Max IOPS	Temporary stor...	Premium disk
B1s	Standard	General purpose	1	1	2	220	4	Yes
B20ms	Standard	General purpose	20	80	32	160	160	Yes
B2ms	Standard	General purpose	2	8	4	16	16	Yes
B2s	Standard	General purpose	2	4	4	1280	8	Yes
B4ms	Standard	General purpose	4	16	8	2880	32	Yes

Prices presented are estimates in your local currency that include Azure infrastructure applicable software costs, as well as any discounts for the subscription and location. Final charges will appear in your local currency in cost analysis and billing views. If you purchased Azure services through a reseller, contact your reseller for full pricing details.

Slide notes

...select the **B2s** provisioning option, as this provides adequate resources for a ZPA Connector, then click **Select**.

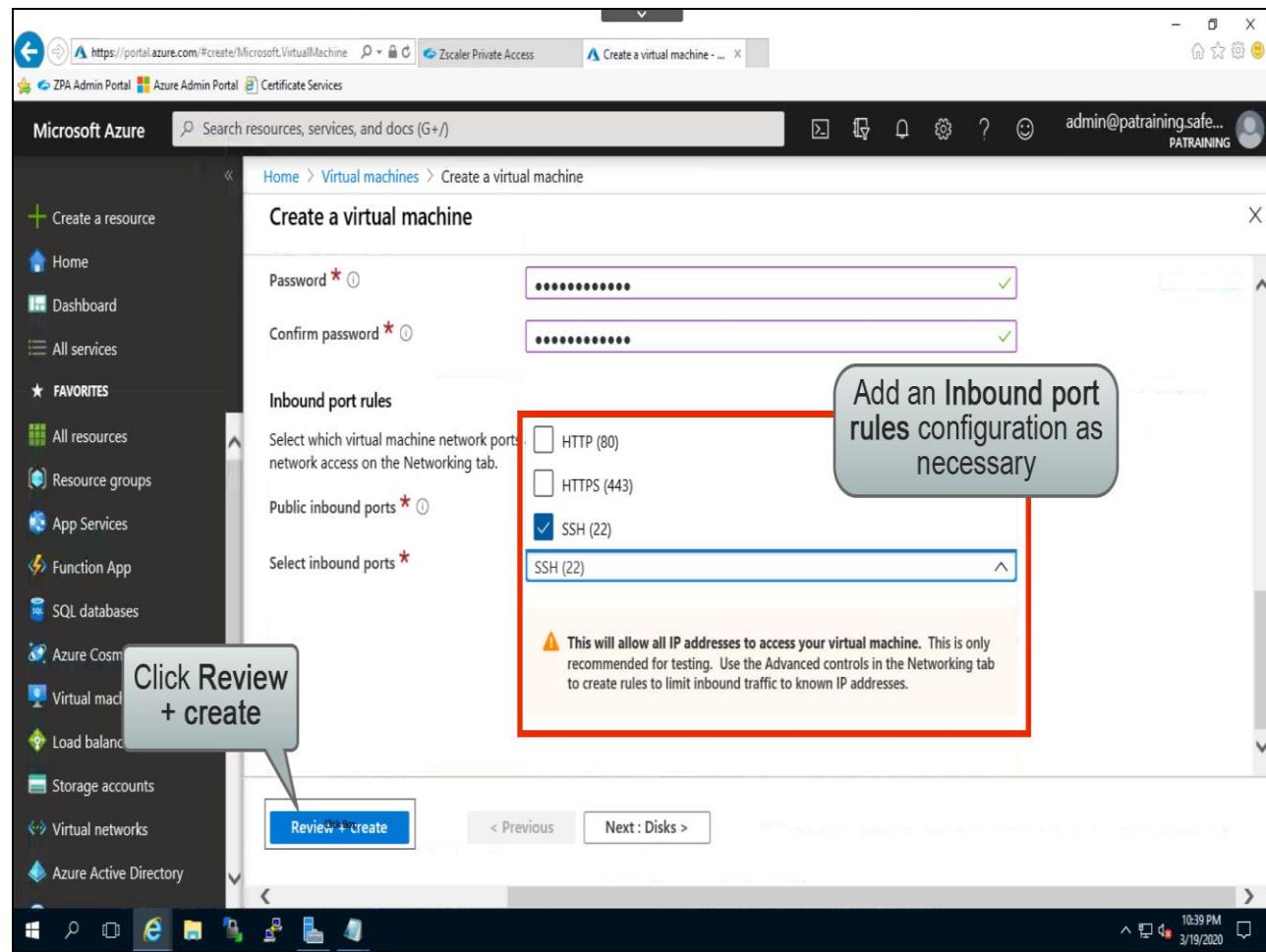
Slide 13 - Slide 13



Slide notes

Configure an **Administrator account** as necessary, ...

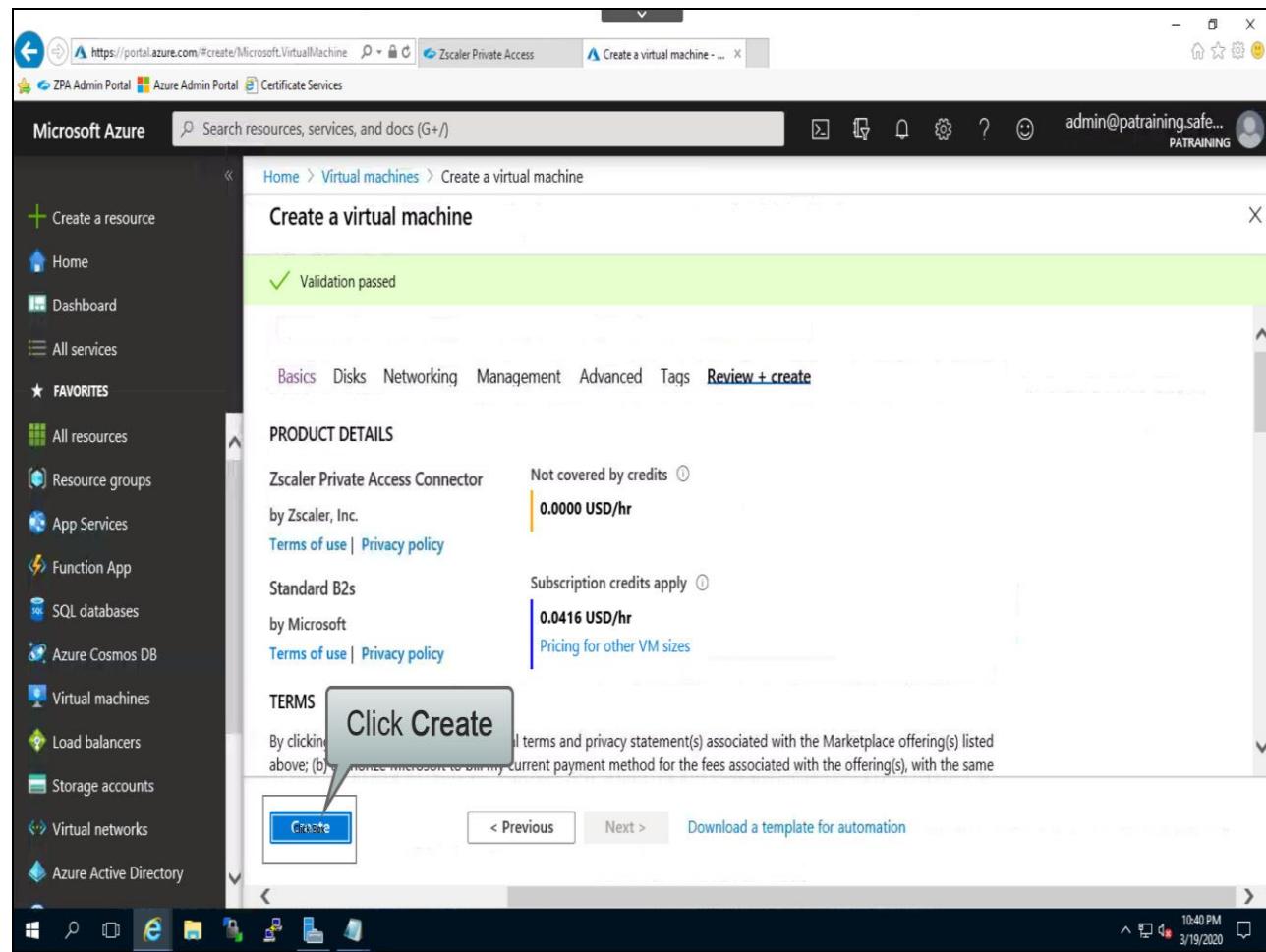
Slide 14 - Slide 14



Slide notes

...and add **Inbound port rules** for administrative access to the VM. To create the VM, click **Review + create**, ...

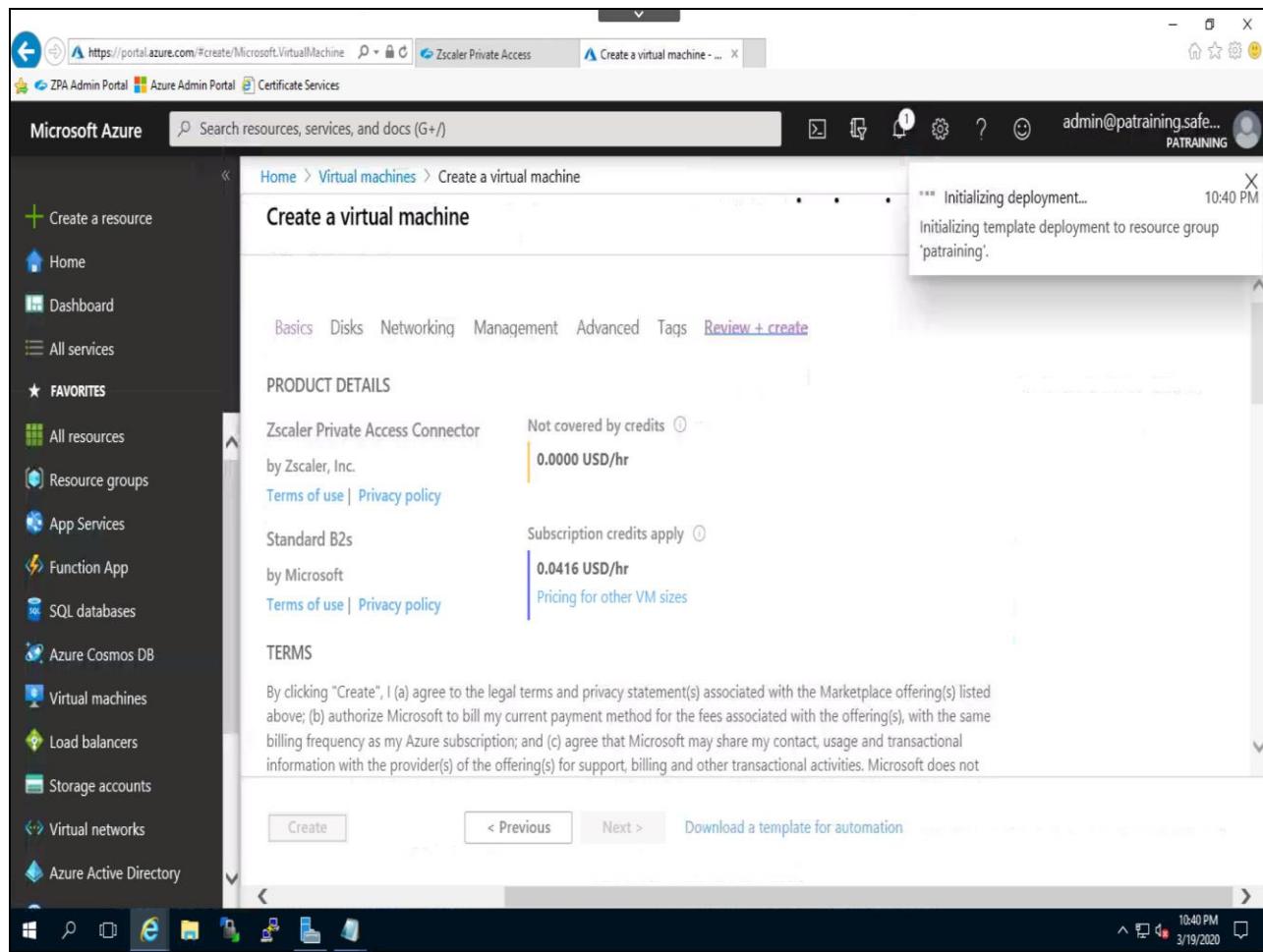
Slide 15 - Slide 15



Slide notes

...and click **Create**.

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Slide notes

Creating the Connector VM may take a few minutes...

Slide 17 - Slide 17

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes links for ZPA Admin Portal, Azure Admin Portal, and Certificate Services. The main search bar contains the placeholder "Search resources, services, and docs (G+/" followed by a magnifying glass icon. The user's email, "admin@patraining.safe...", and name, "PATRINING", are displayed in the top right corner.

The left sidebar menu lists various Azure services: Create a resource, Home, Dashboard, All services, Favorites, All resources, Resource groups, App Services, Function App, SQL databases, Azure Cosmos DB, Virtual machines, Load balancers, Storage accounts, Virtual networks, and Azure Active Directory.

The main content area displays the "CreateVm-zscaler.zscaler-private-access-zpa-con-a-20200319223739 | Overview" page. The title bar shows the deployment name and a "Deployment" icon. Below the title are buttons for Delete, Cancel, Redeploy, and Refresh. A message "Your deployment is underway" is prominently displayed. Deployment details are listed: Deployment name: CreateVm-zscaler.zscaler-private-access-zpa-c..., Start time: 3/19/2020 10:40:52 PM; Subscription: patraining; Correlation ID: 8f808487-080e-4de6-963; Resource group: patraining. A "Deployment details" section with a download link is also present. A table titled "Resource" with columns for Resource, Type, Status, and Operation det... shows "No results.".

Slide notes

Creating the Connector VM may take a few minutes...

Slide 18 - Slide 18

The screenshot shows the Microsoft Azure portal interface. The left sidebar contains navigation links for creating resources, home, dashboard, all services, favorites, all resources, resource groups, app services, function apps, SQL databases, Azure Cosmos DB, virtual machines, load balancers, storage accounts, virtual networks, and Azure Active Directory. The main content area displays the 'CreateVm-zscaler.zscaler-private-access-zpa-con-a-20200319223739 | Overview' page. The title bar includes the URL https://portal.azure.com/#blade/HubsExtension/Deployment, the Zscaler Private Access extension icon, and the deployment name. The top right shows the user's email (admin@patraining.safe...) and a PATRINING group membership indicator. A search bar at the top says 'Search resources, services, and docs (G+/-)'. Below the search bar is a breadcrumb trail: Home > CreateVm-zscaler.zscaler-private-access-zpa-con-a-20200319223739 | Overview. The main content area has a heading 'Your deployment is underway' and a summary table:

Resource	Type	Status	Operation details
zpaconnector831	Microsoft.Network/network... Subnet	Created	Operation details
ZPAConnectornsg653	Microsoft.Network/network... Network security group	OK	Operation details
ZPAConnectoriip864	Microsoft.Network/publicip... Public IP address	OK	Operation details

At the bottom of the deployment summary, there are links for 'Deployment details' and 'Download'. The status bar at the bottom right shows the time as 10:41 PM and the date as 3/19/2020.

Slide notes

Creating the Connector VM may take a few minutes...

Slide 19 - Slide 19

Microsoft Azure

Search resources, services, and docs (G+)

Home > CreateVm-zscaler.zscaler-private-access-zpa-con-a-20200319223739 | Overview

CreateVm-zscaler.zscaler-private-access-zpa-con-a-20200319223739 | Overview

Your deployment is underway

Deployment name: CreateVm-zscaler.zscaler-private-access-zpa-c... Start time: 3/19/2020 10:40:52 PM
Subscription: patraining Correlation ID: 8f808487-080e-4de6-963
Resource group: patraining

Deployment details (Download)

Resource	Type	Status	Operation det...
ZPAConector	Microsoft.Compute/virtual...	Created	Operation det...
zpacollector831	Microsoft.Network/network...	Created	Operation det...
ZPACollectornsg653	Microsoft.Network/network...	OK	Operation det...
ZPACollectorip864	Microsoft.Network/publicip...	OK	Operation det...

Slide notes

Creating the Connector VM may take a few minutes...

Slide 20 - Slide 20

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes links for ZPA Admin Portal, Azure Admin Portal, and Certificate Services. The main search bar contains the placeholder "Search resources, services, and docs (G+ /)". The user's email, "admin@patraining.safe...", and name, "PATRINING", are displayed in the top right corner.

The left sidebar menu lists various Azure services: Create a resource, Home, Dashboard, All services, Favorites, All resources, Resource groups, App Services, Function App, SQL databases, Azure Cosmos DB, Virtual machines, Load balancers, Storage accounts, Virtual networks, and Azure Active Directory.

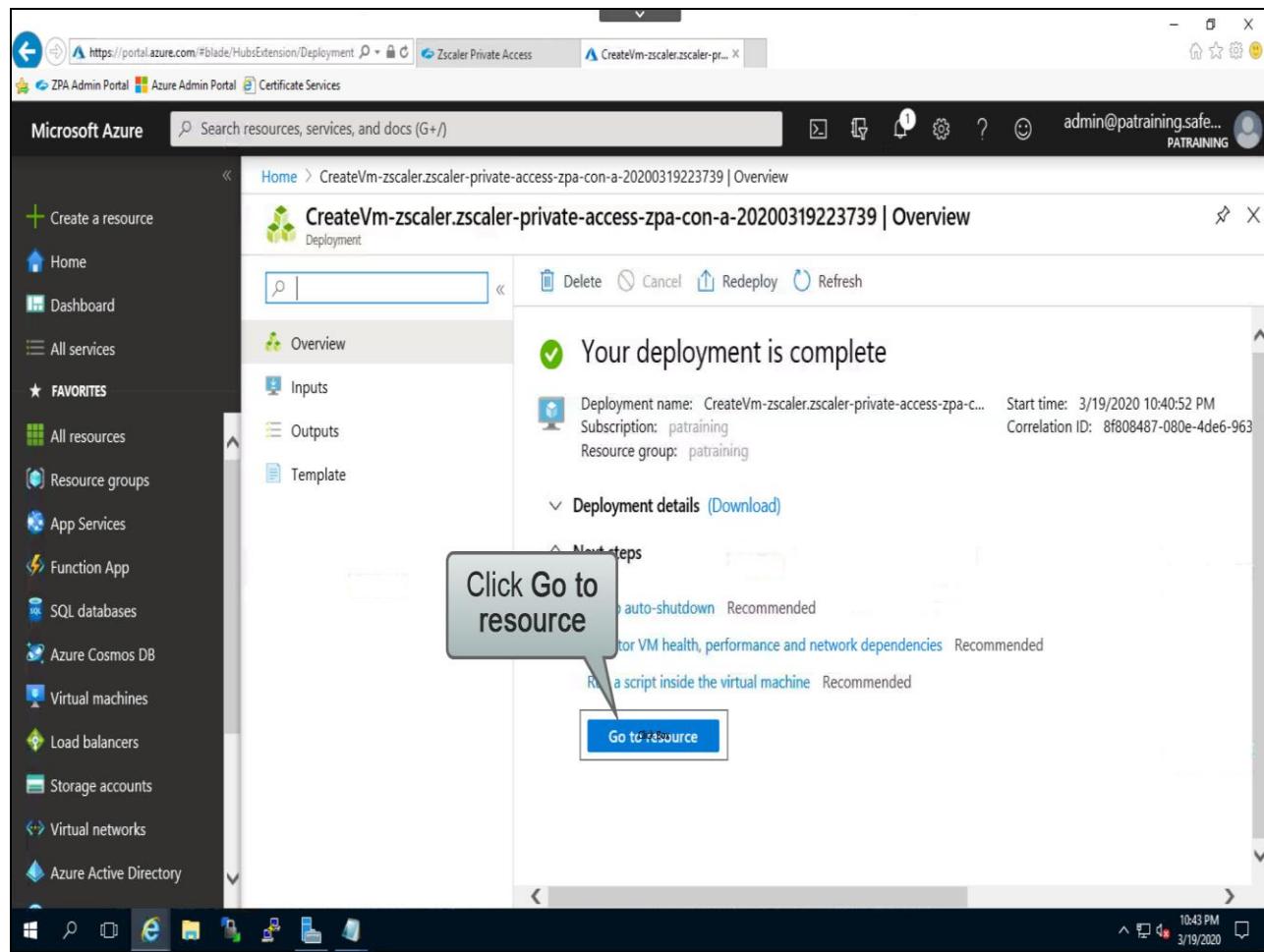
The central content area displays the "CreateVm-zscaler.zscaler-private-access-zpa-con-a-20200319223739 | Overview" page. The title bar shows the deployment name and a success message: "Deployment succeeded". The timestamp is 10:43 PM. The message states: "Deployment 'CreateVm-zscaler.zscaler-private-access-zpa-con-a-20200319223739' to resource group 'patraining' was successful."

The left sidebar of the overview page lists "Overview", "Inputs", "Outputs", and "Template". The main content area features a large green checkmark icon with the text "Your deployment is complete". Below it, deployment details are listed: Deployment name: CreateVm-zscaler.zscaler-private-access-zpa-c..., Start time: 3/19/2020 10:40:52 PM; Subscription: patraining; Resource group: patraining. A "Deployment details" section with a download link is also present. Below that is a "Next steps" section with three recommended actions: "Setup auto-shutdown" (Recommended), "Monitor VM health, performance and network dependencies" (Recommended), and "Run a script inside the virtual machine" (Recommended). A "Go to resource" button is located at the bottom of this section.

Slide notes

Creating the Connector VM may take a few minutes...

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Slide notes

Once the VM has been created, click **Go to resource**, ...

Slide 22 - Slide 22

The screenshot shows the Microsoft Azure portal interface. On the left is the navigation sidebar with various service icons. The main content area is titled "ZPAConnector" under "Virtual machine". The "Overview" tab is selected. In the center, there's a table of configuration details. A callout bubble points to the "Public IP address" field, which contains the value "137.117.34.33". This field is highlighted with a red border. The rest of the table includes fields like "Resource group (change)", "Status", "Location", "Subscription (change)", "Computer name", "Operating system", "Size", and "Tags". The status is listed as "Running". The location is "East US". The subscription is "patraining". The computer name is "(not available)". The operating system is "Linux". The size is "Standard B2s (2 vcpus, 4 GiB memory)". There are also sections for "Networking", "Connect", "Disks", "Size", "Security", "Extensions", and "Continuous delivery". The top of the screen shows the URL "https://portal.azure.com/#@patraining.safemarch.com/resou" and the title "Zscaler Private Access - ZPAConnector - Microsoft ...". The bottom of the screen shows the Windows taskbar with icons for Start, Search, Task View, File Explorer, Edge, and File Explorer.

Slide notes

...to be taken to the Connector's **Overview** page. Here you can review the configuration and status of the Connector and find its **Public IP address** for management, copy or note down the address.

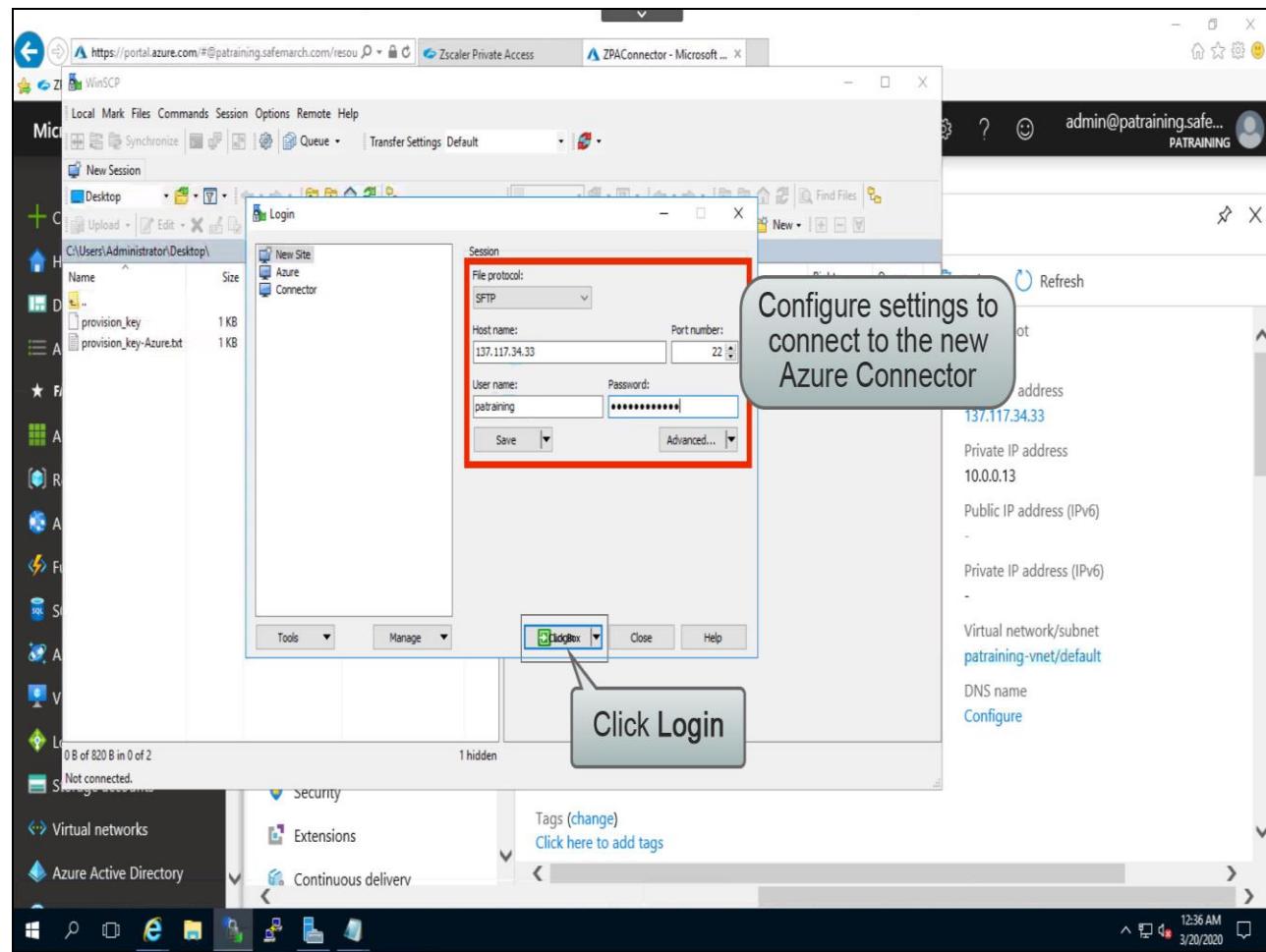
Slide 23 - Slide 23

The screenshot shows the Microsoft Azure portal interface. The left sidebar contains navigation links like 'Create a resource', 'Home', 'Dashboard', 'All services', 'FAVORITES', 'All resources', 'Resource groups', 'App Services', 'Function App', 'SQL databases', 'Azure Cosmos DB', 'Virtual machines', 'Load balancers', 'Storage accounts', 'Virtual networks', and 'Azure Active Directory'. The main content area displays the 'ZPAConnector' virtual machine details. On the left, there's a sidebar with 'Overview', 'Activity log', 'Access control (IAM)', 'Tags', 'Diagnose and solve problems', 'Settings' (Networking, Connect, Disks), and 'Click to open WinSCP'. The main pane shows the VM's status (Running), location (East US), and various configuration details. At the bottom, there are 'Connect', 'Start', 'Restart', 'Stop', 'Capture', 'Delete', and 'Refresh' buttons.

Slide notes

Now that the Connector is available, you need to configure it just like any other type of Connector. To transfer the provisioning key data to it, click to open WinSCP, ...

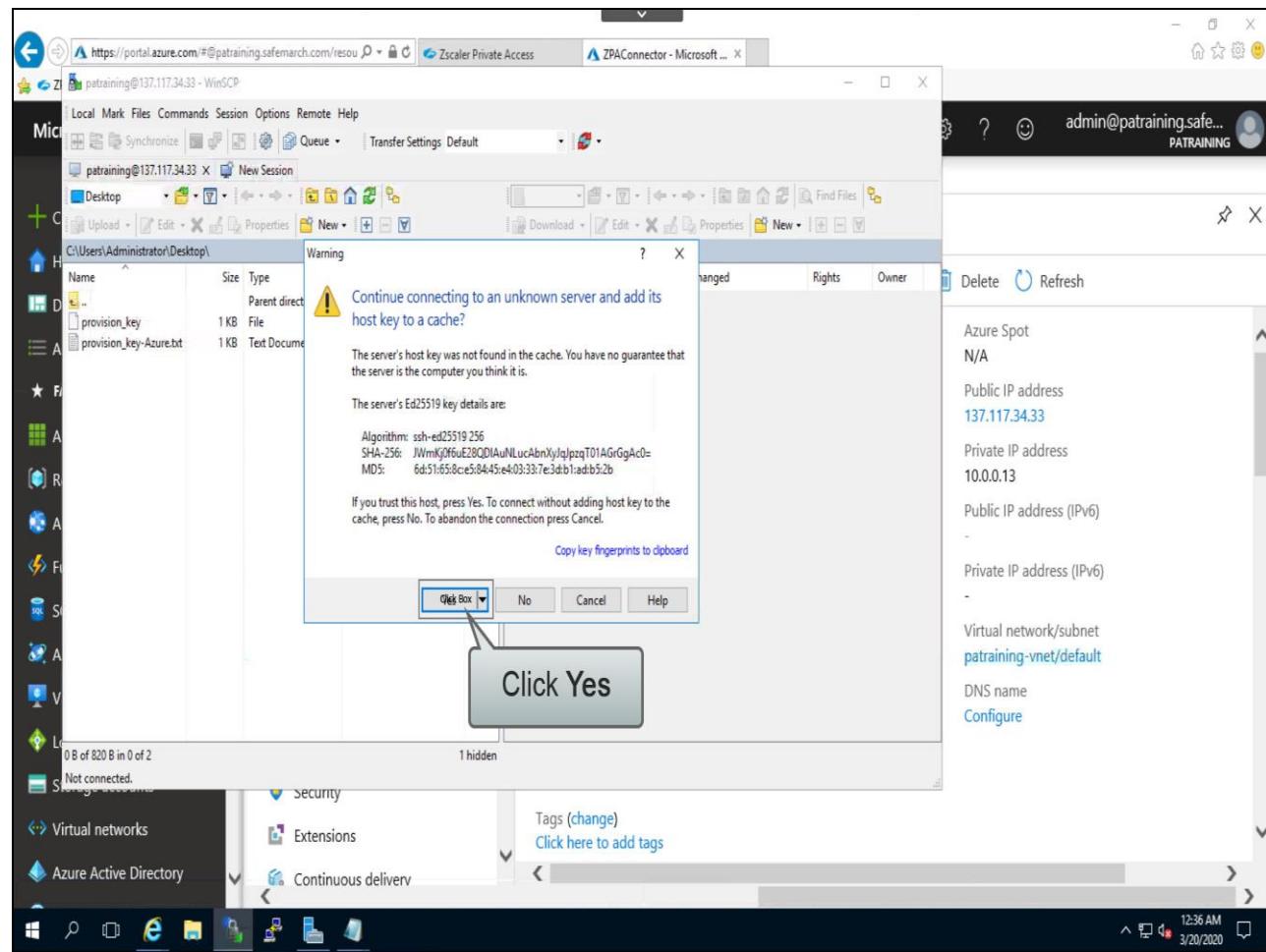
Slide 24 - Slide 24



Slide notes

...select the **New Site** option and configure it to connect to the Connector in Azure by pasting in the IP address that you copied. Click **Login** to connect, ...

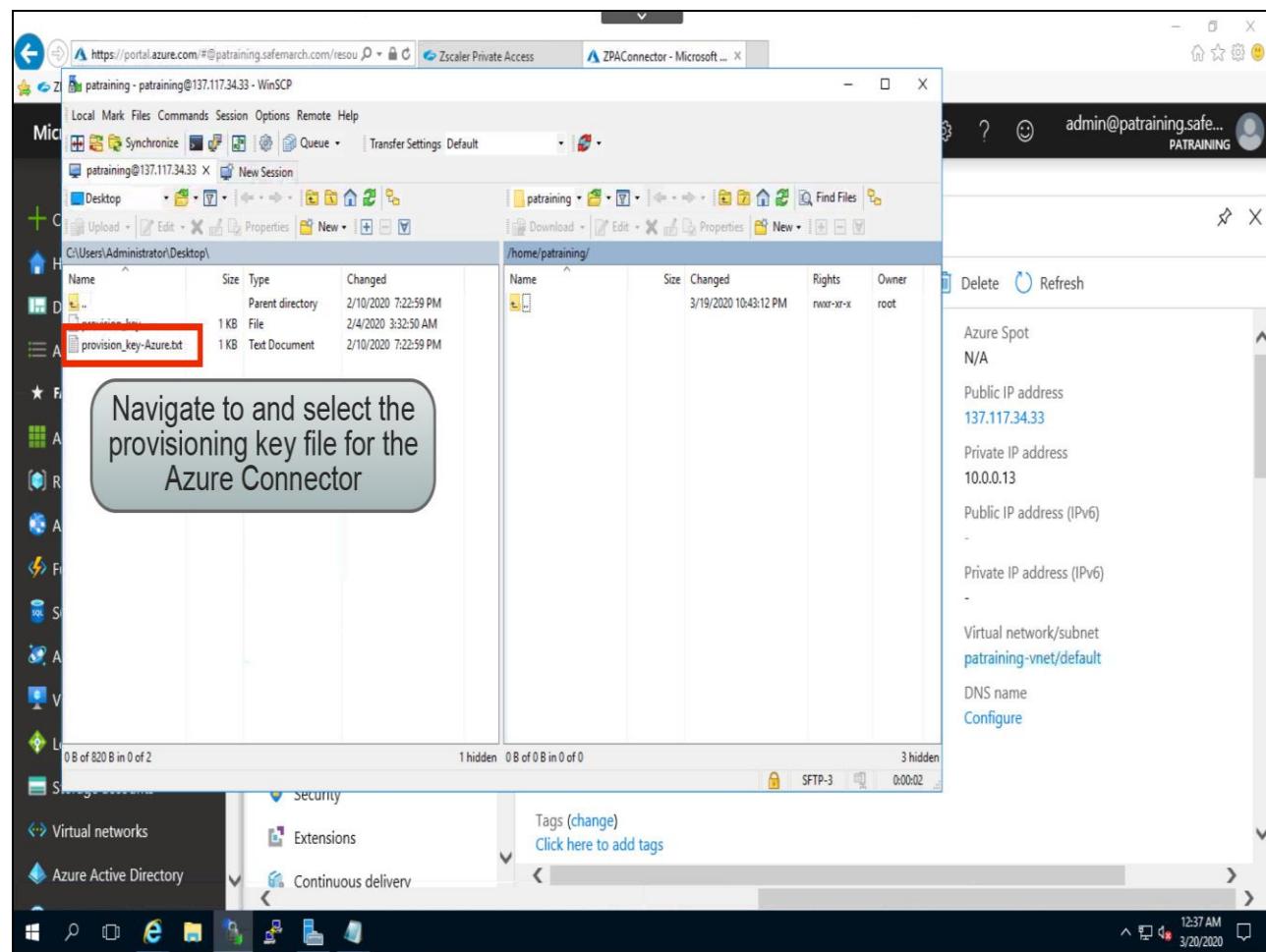
Slide 25 - Slide 25



Slide notes

...and click Yes to accept the certificate presented.

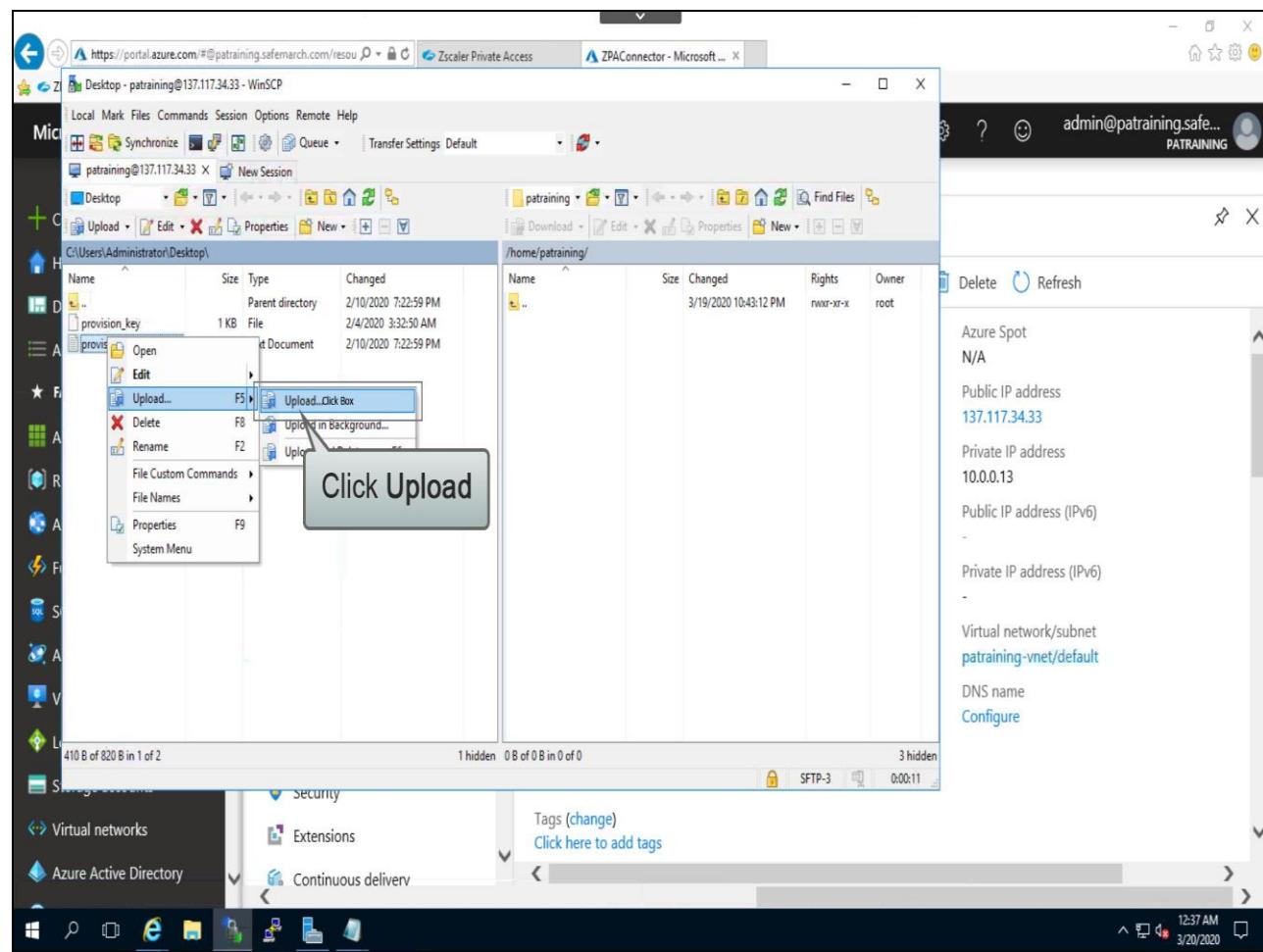
Slide 26 - Slide 26



Slide notes

In the left-hand panel (the local machine), navigate to and select the provisioning key file for the Azure Connector, ...

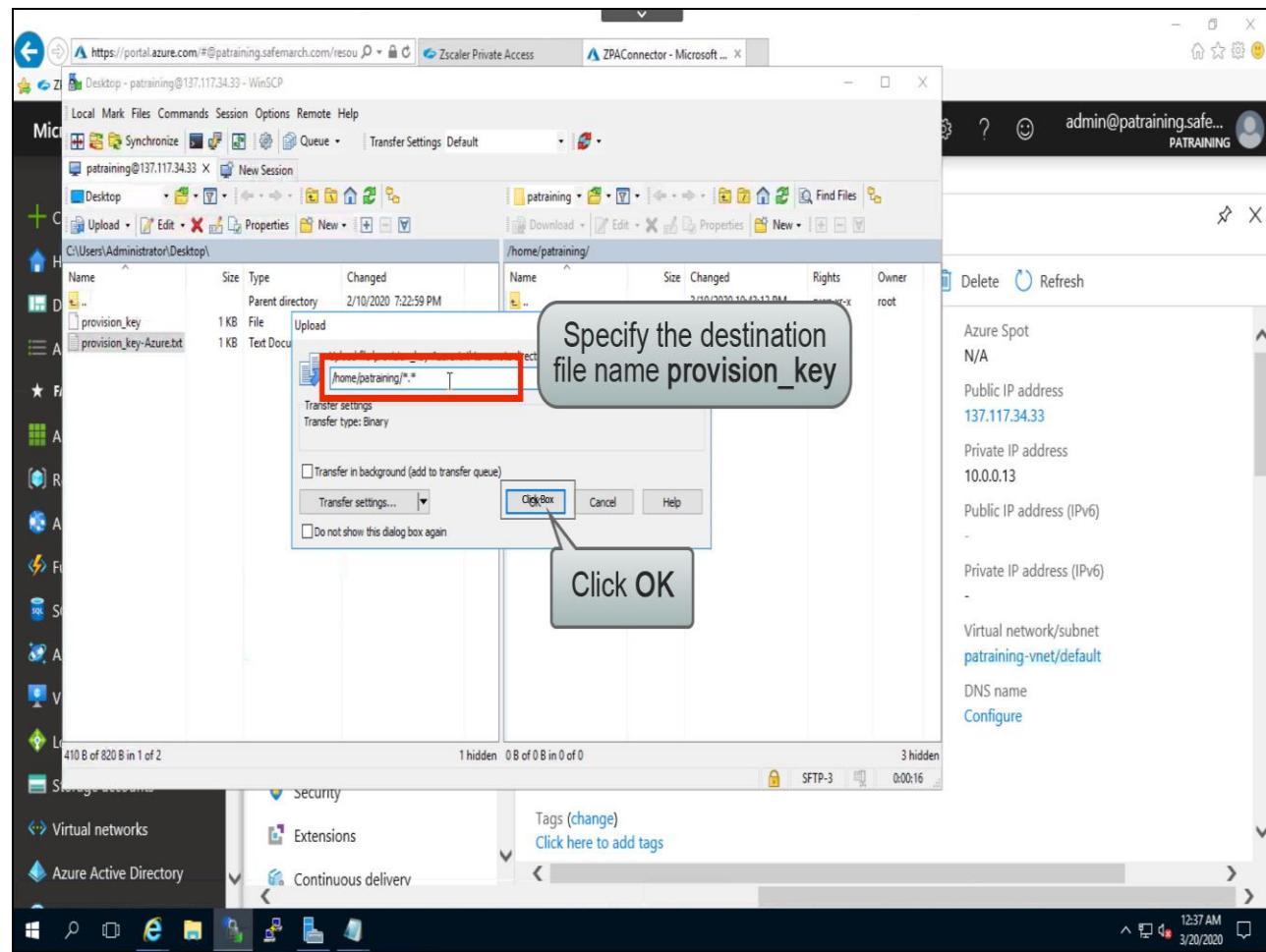
Slide 27 - Slide 27



Slide notes

Right click the file and select the **Upload** option, then click **Upload**.

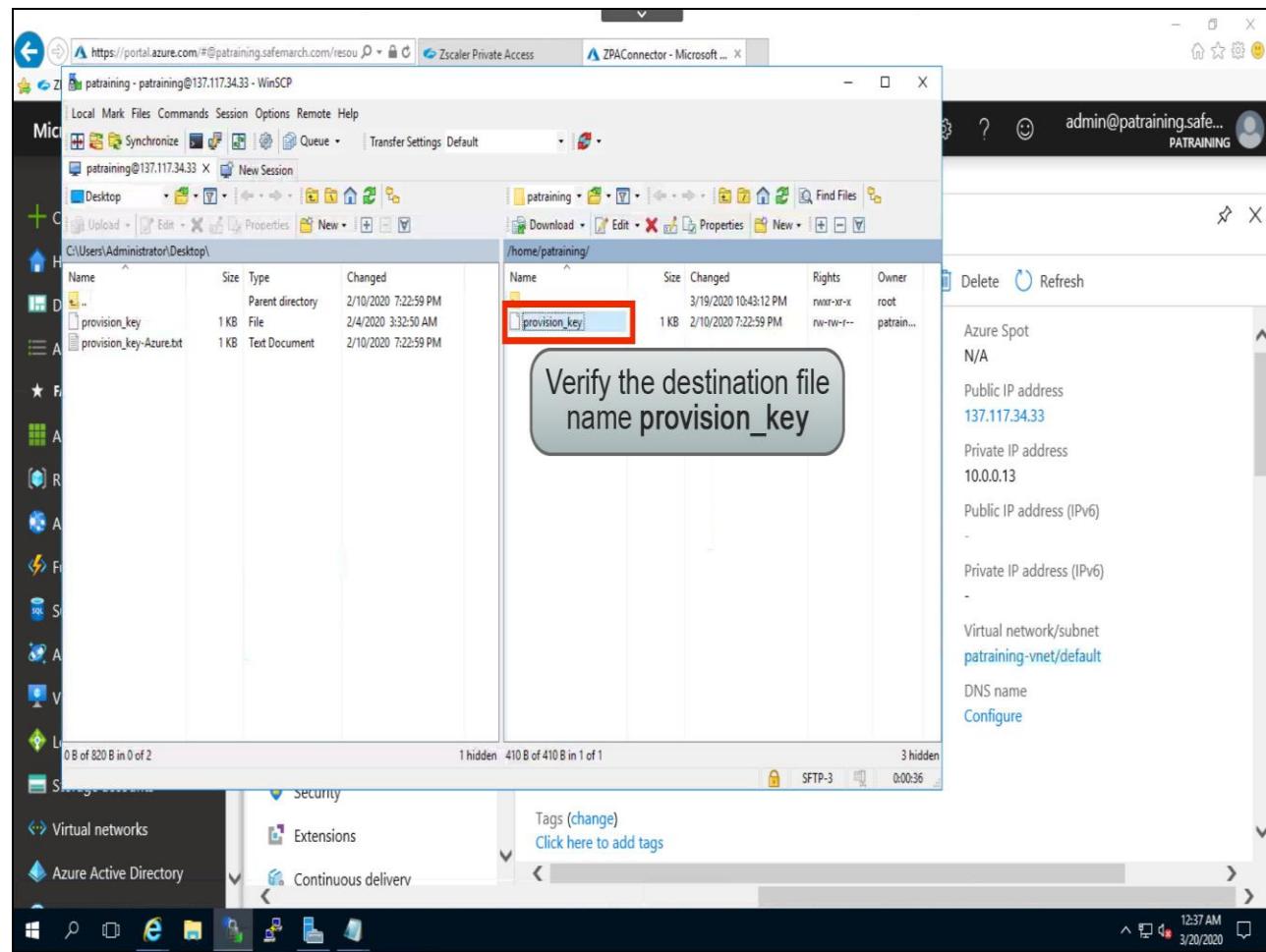
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Slide notes

Specify the destination file name to be **provision_key** in the default directory and click **OK**.

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Slide notes

Verify that the file is uploaded and is named correctly, then you can close WinSCP.

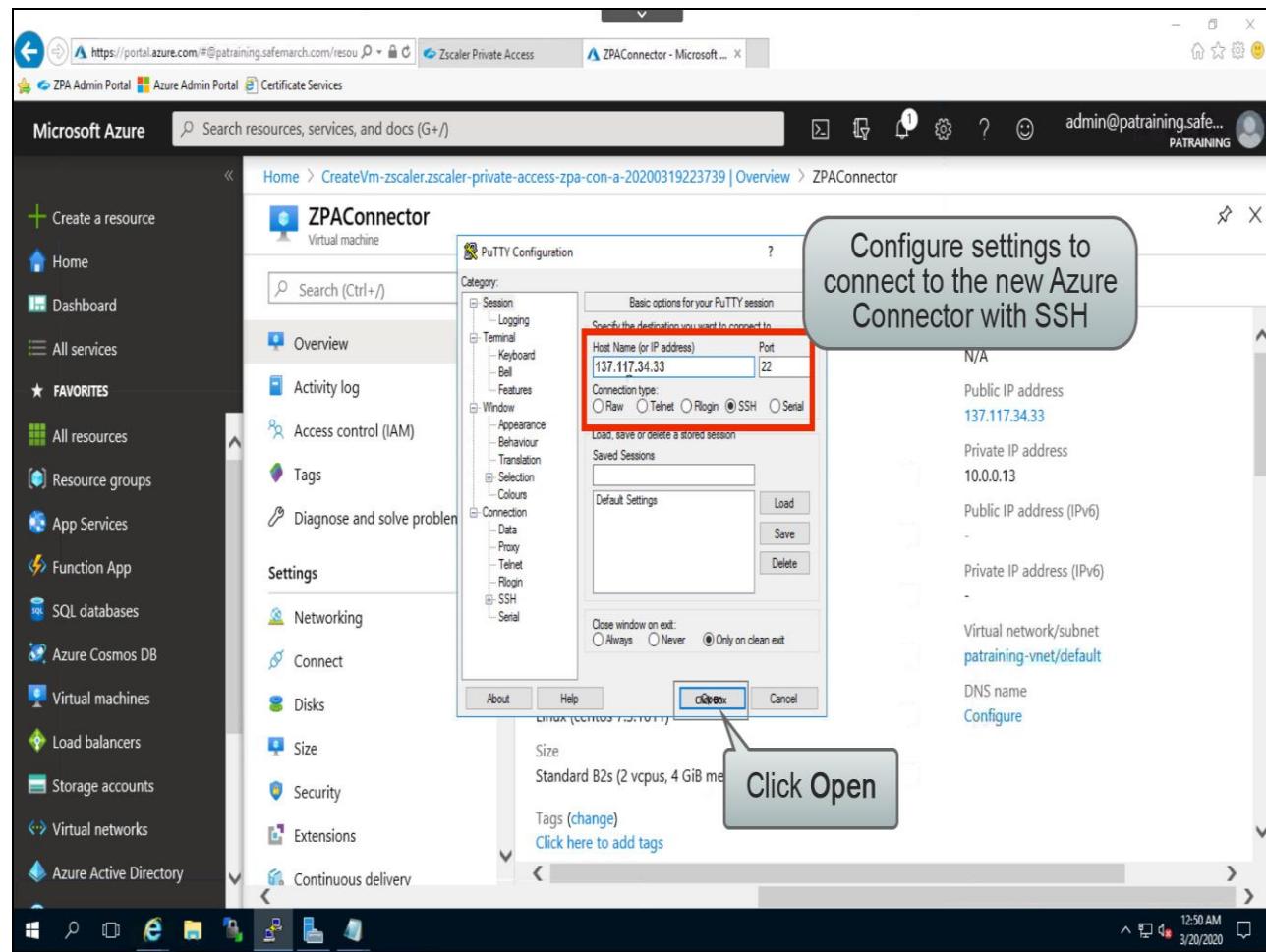
Slide 30 - Slide 30

The screenshot shows the Microsoft Azure portal interface. The left sidebar contains navigation links such as 'Create a resource', 'Home', 'Dashboard', 'All services', 'FAVORITES', 'All resources', 'Resource groups', 'App Services', 'Function App', 'SQL databases', 'Azure Cosmos DB', 'Virtual machines', 'Load balancers', 'Storage accounts', 'Virtual networks', and 'Azure Active Directory'. The main content area displays the 'ZPAConnector' virtual machine details under the 'Virtual machines' section. The 'Overview' tab is selected. The 'Connect' button in the toolbar is highlighted with a callout bubble containing the text 'Click to open PuTTY'. Other visible details include the resource group 'patraining', status 'Running', location 'East US', subscription 'patraining', computer name 'zpaconnector', operating system 'Linux (centos 7.3.1611)', and network information like 'Private IP address' (10.0.0.13) and 'Public IP address' (137.117.34.33). The bottom of the screen shows the Windows taskbar with icons for Start, Search, Task View, File Explorer, Edge, and File Explorer.

Slide notes

To access the Connector terminal interface, click to open **PuTTY**, ...

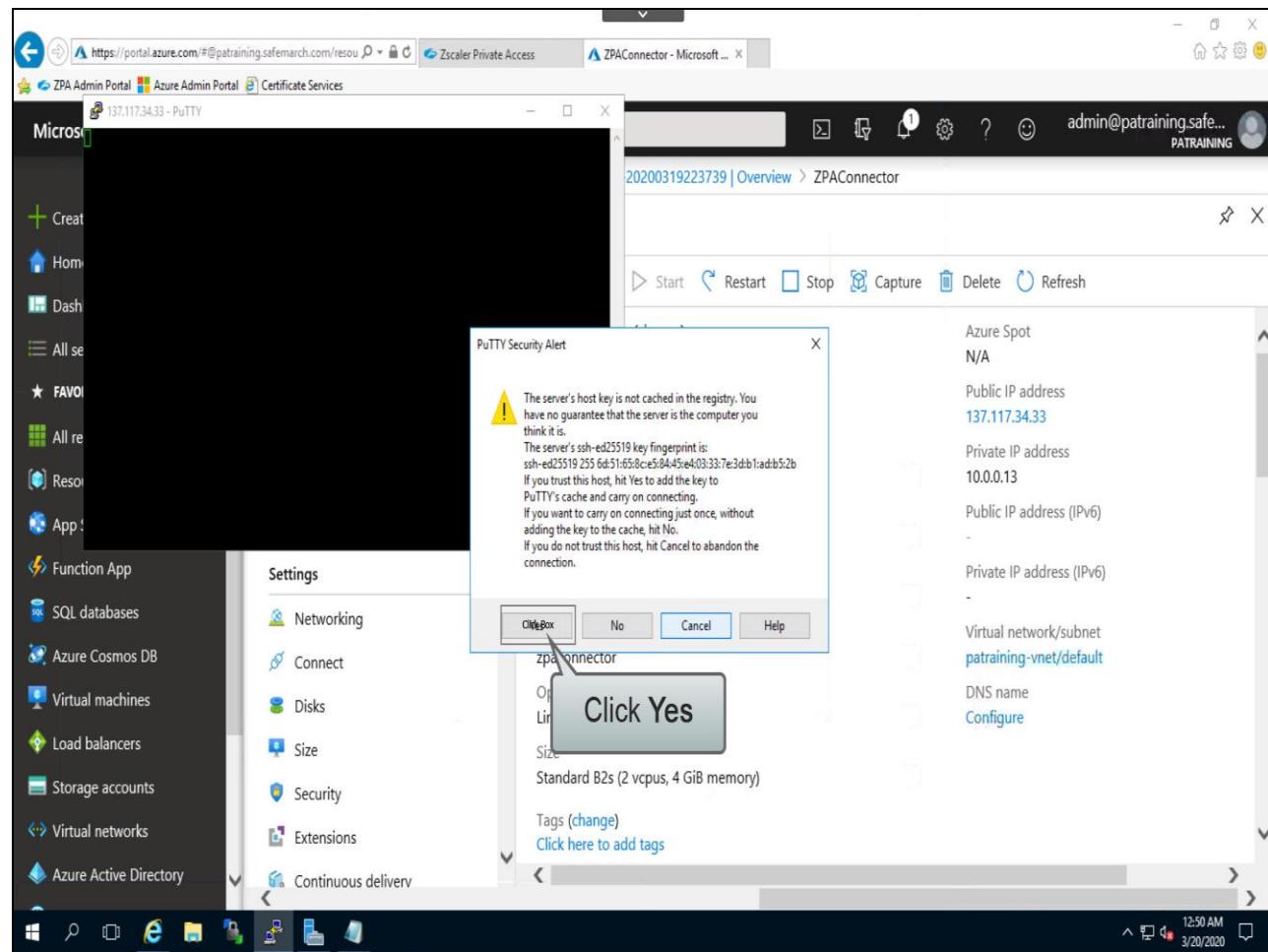
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Slide notes

...paste in the IP address for the Connector for a **port 22** connection using **SSH** and click **Open**.

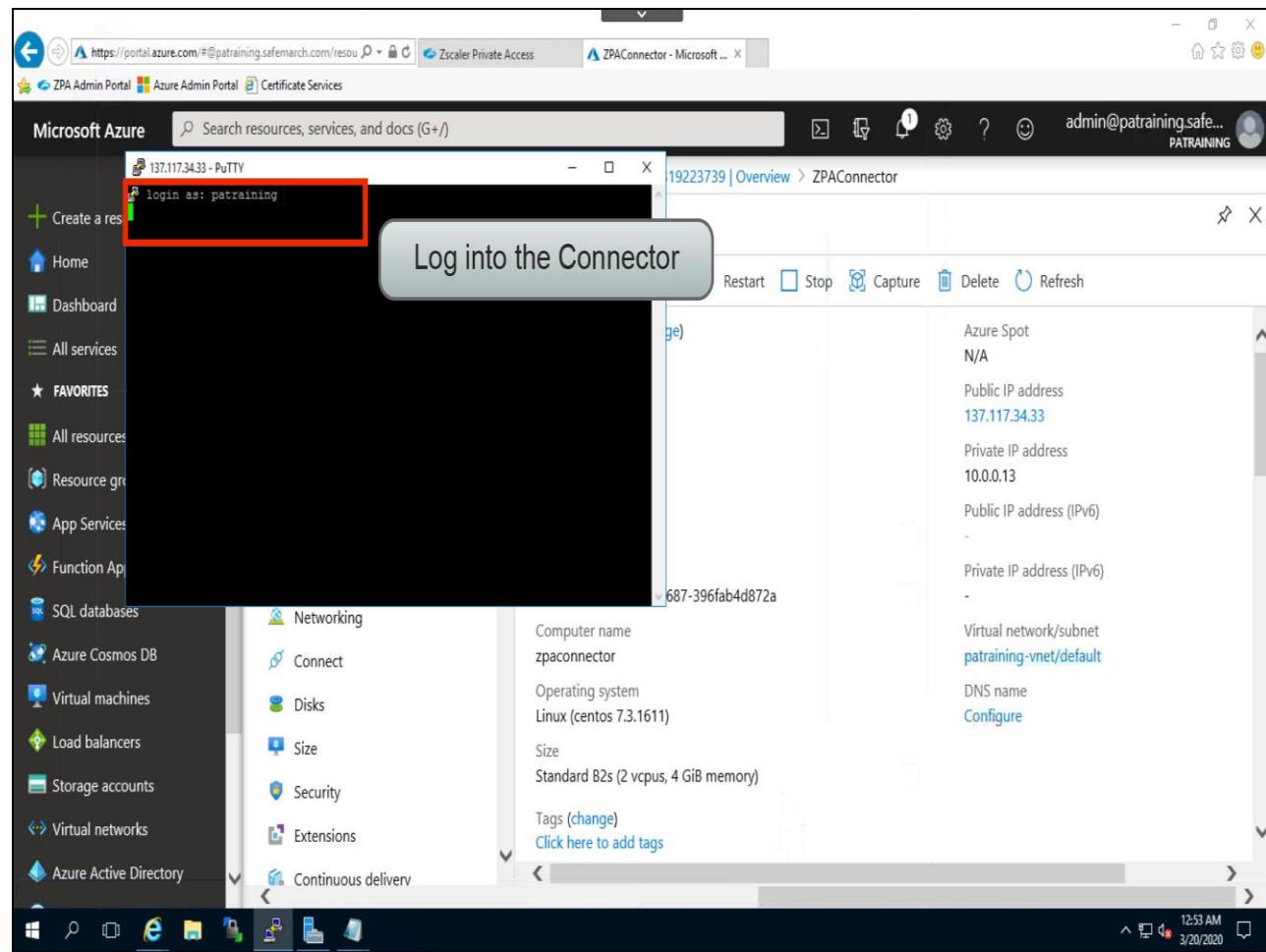
Slide 32 - Slide 32



Slide notes

Click Yes to accept the certificate, ...

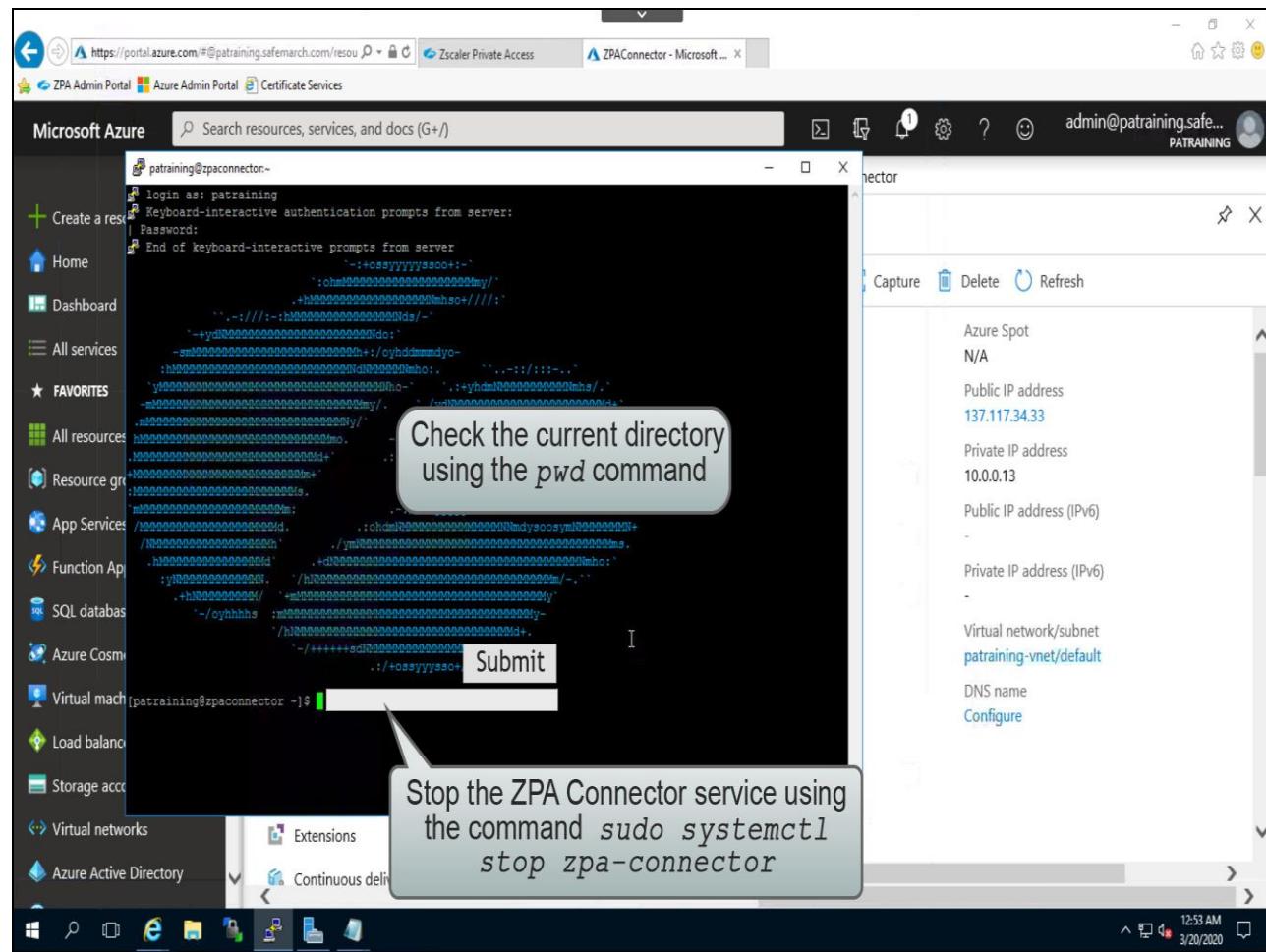
Slide 33 - Slide 33



Slide notes

...then login at the terminal prompt with the username and password you set when creating the VM.

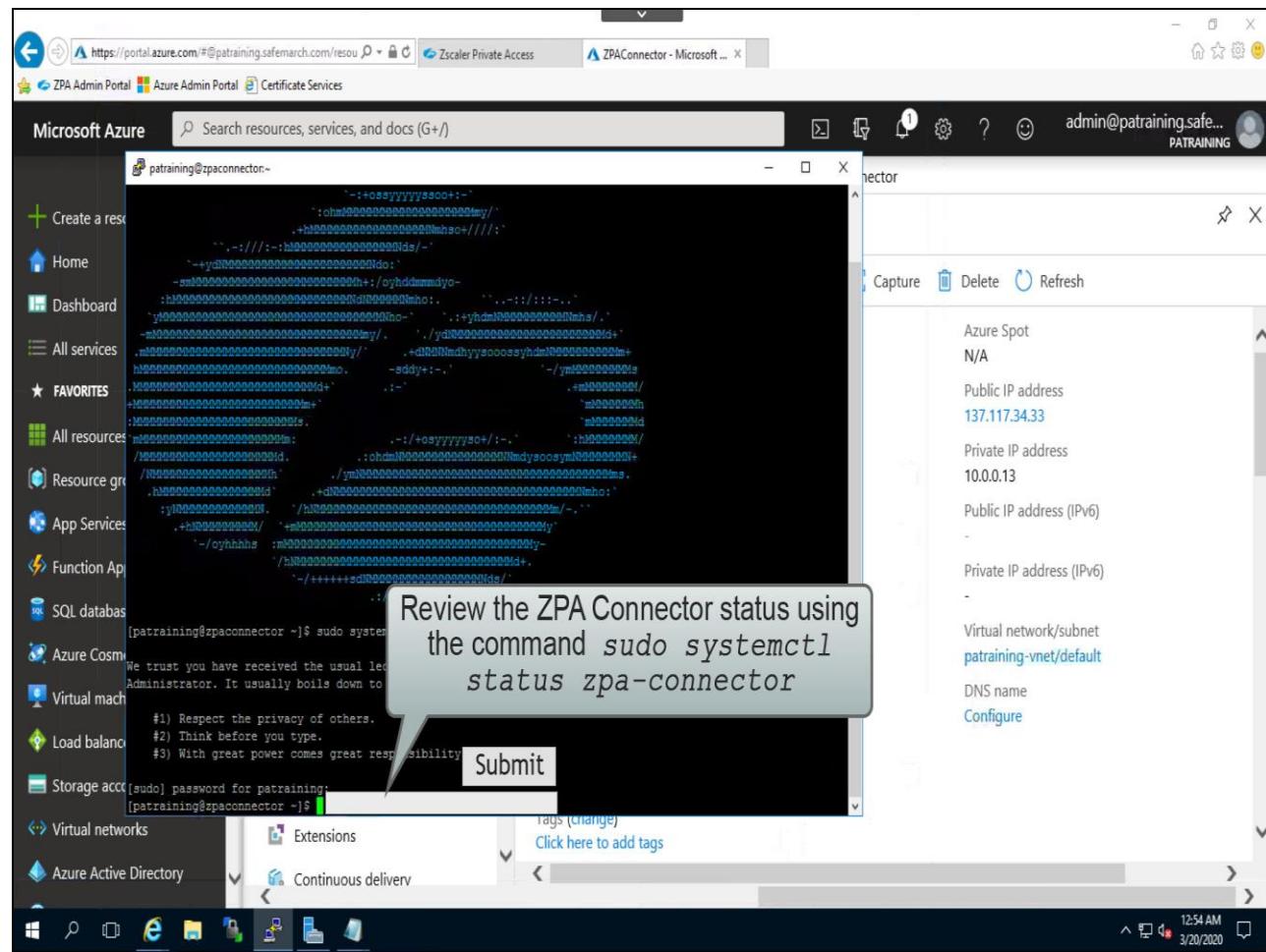
Slide 34 - Slide 34



Slide notes

Check the current directory using the `pwd` command (should be `/home/[admin user name]`), then to stop the ZPA Connector service enter the command `sudo systemctl stop zpa-connector`. Enter the admin password when prompted.

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Slide notes

Check that the service has actually stopped using the command **sudo systemctl status zpa-connector**.

Slide 36 - Slide 36

The screenshot shows a Microsoft Azure Cloud Shell window. On the left, the Azure portal sidebar is visible with various service icons like Create a resource, Home, Dashboard, All services, Favorites, All resources, Resource groups, App Services, Function Apps, SQL databases, Azure Cosmos DB, Virtual machines, Load balancers, Storage accounts, Virtual networks, and Azure Active Directory. The main area shows a terminal session for user 'patraining' on 'zpaconnector'. The terminal output includes:

```
[patraining@zpaconnector ~]$ sudo systemctl stop zpa-connector
We trust you have received the usual lecture from the local System Administrator. It usually boils down to these three things:
#1) Respect the privacy of others.
#2) Think before you type.
#3) With great power comes great responsibility.

[sudo] password for patraining:
[patraining@zpaconnector ~]$ sudo systemctl status zpa-connector
● zpa-connector.service - Zscaler Private Access Connector
   Loaded: loaded (/usr/lib/systemd/system/zpa-connector.service; enabled; vendor preset: enabled)
   Active: inactive (dead) since Fri 2020-03-20 07:54:04 UTC; 34s ago
     Main PID: 920 (code=killed, signal=TERM)
    CGroup: /system.slice/zpa-connector.service
           ├─920 /opt/zscaler/bin/zpa-connector -c /etc/zpa-connector.conf
           └─921 /opt/zscaler/bin/zpa-connector -c /etc/zpa-connector.conf

Mar 20 05:43:11 zpaconnector zpa-connector[920]: [patraining@zpaconnector ~]$
```

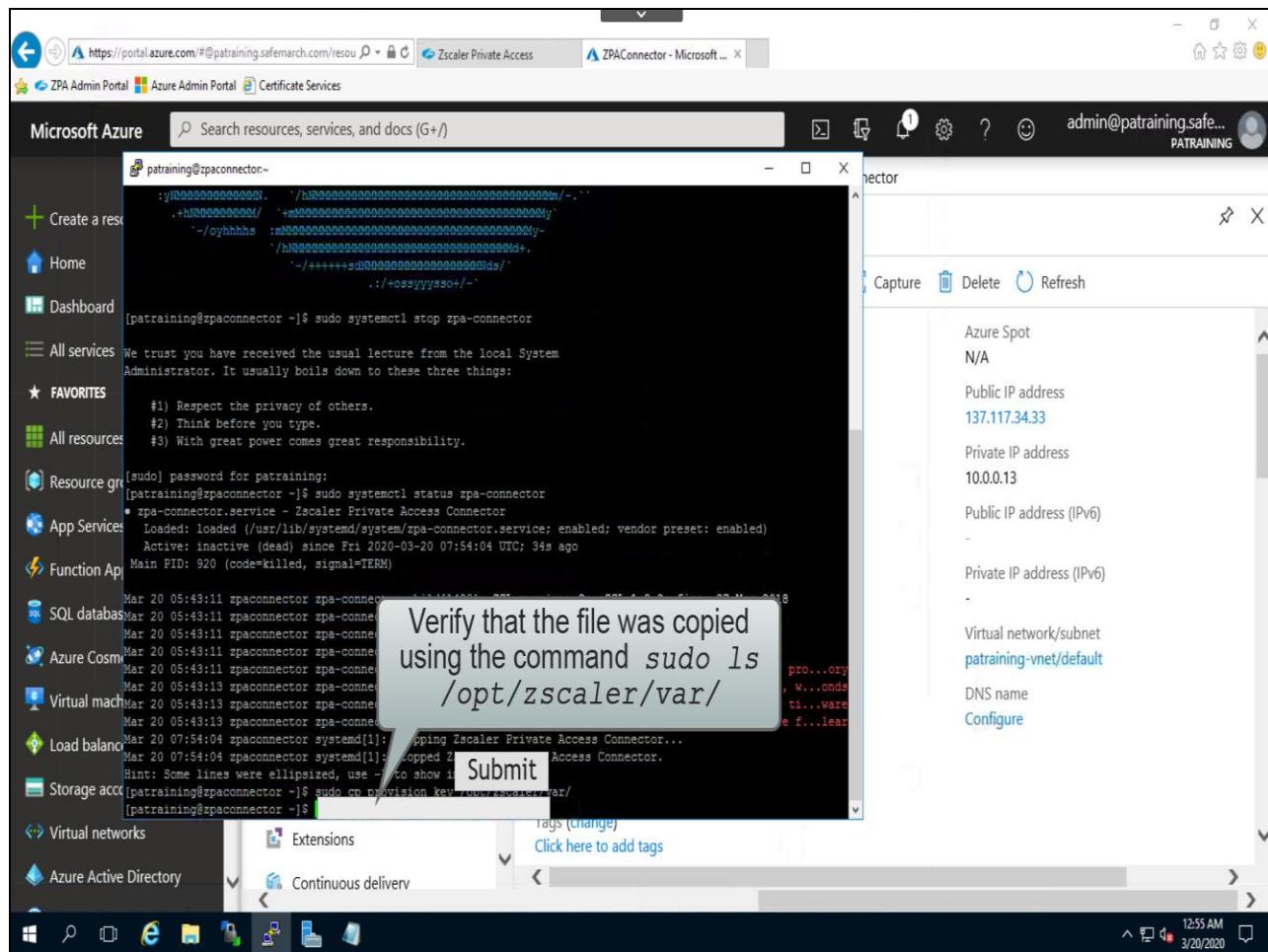
A callout bubble highlights the status line: "ZPA Connector status should indicate **inactive (dead)**". Another callout bubble provides instructions: "Copy the provision_key file to the ZPA Connector directory using the command `sudo cp provision_key /opt/zscaler/var/provision_key`". A red box highlights the "Submit" button at the bottom of the terminal window.

Slide notes

The ZPA Connector status should indicate **inactive (dead)**.

Copy the **provision_key** file to the ZPA Connector directory using the command `sudo cp provision_key /opt/zscaler/var/provision_key`.

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Slide notes

To verify that the file was actually copied, list the contents of the ZPA Connector directory with the command **sudo ls /opt/zscaler/var/**.

Slide 38 - Slide 38

The screenshot shows a Microsoft Azure Cloud Shell interface. On the left, the Azure portal sidebar lists resources like 'Create a resource', 'Home', 'Dashboard', 'All services', 'FAVORITES', 'All resources', 'Resource groups', 'App Services', 'Function Apps', 'SQL databases', 'Virtual networks', 'Azure Active Directory', and 'Storage accounts'. The main area is a terminal window with the following content:

```
[patraining@zpaconnector ~]$ sudo systemctl stop zpa-connector
We trust you have received the usual lecture from the local System Administrator. It usually boils down to these three things:
#1) Respect the privacy of others.
#2) Think before you type.
#3) With great power comes great responsibility.

[patraining@zpaconnector ~]$ sudo password for patraining:
[patraining@zpaconnector ~]$ sudo systemctl status zpa-connector
● zpa-connector.service - Zscaler Private Access Connector
  Loaded: loaded (/usr/lib/systemd/system/zpa-connector.service; enabled; vendor preset: enabled)
  Active: inactive (dead) since Fri 2020-03-20 07:54:04 UTC; 34s ago
    Main PID: 920 (code=killed, signal=TERM)
   CGroup: /system.slice/zpa-connector.service
           └─920 /usr/bin/zpa-connector

Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: SSL version: OpenSSL 1.0.2o-fips 27 Mar 2018
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: libevent version: 2.1.8-stable
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: Zscaler Private Access Connector
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: Zscaler Private Access Connector
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: Provisioning key update version
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: Provisioning key update version
[patraining@zpaconnector ~]$
```

A callout box highlights the command `sudo systemctl start zpa-connector` with the text: "Start the ZPA Connector service using the command `sudo systemctl start zpa-connector`". Below the terminal, a red box highlights the "Submit" button in a modal dialog.

On the right side of the screen, there's a panel titled "ZpaConnector" with the following details:

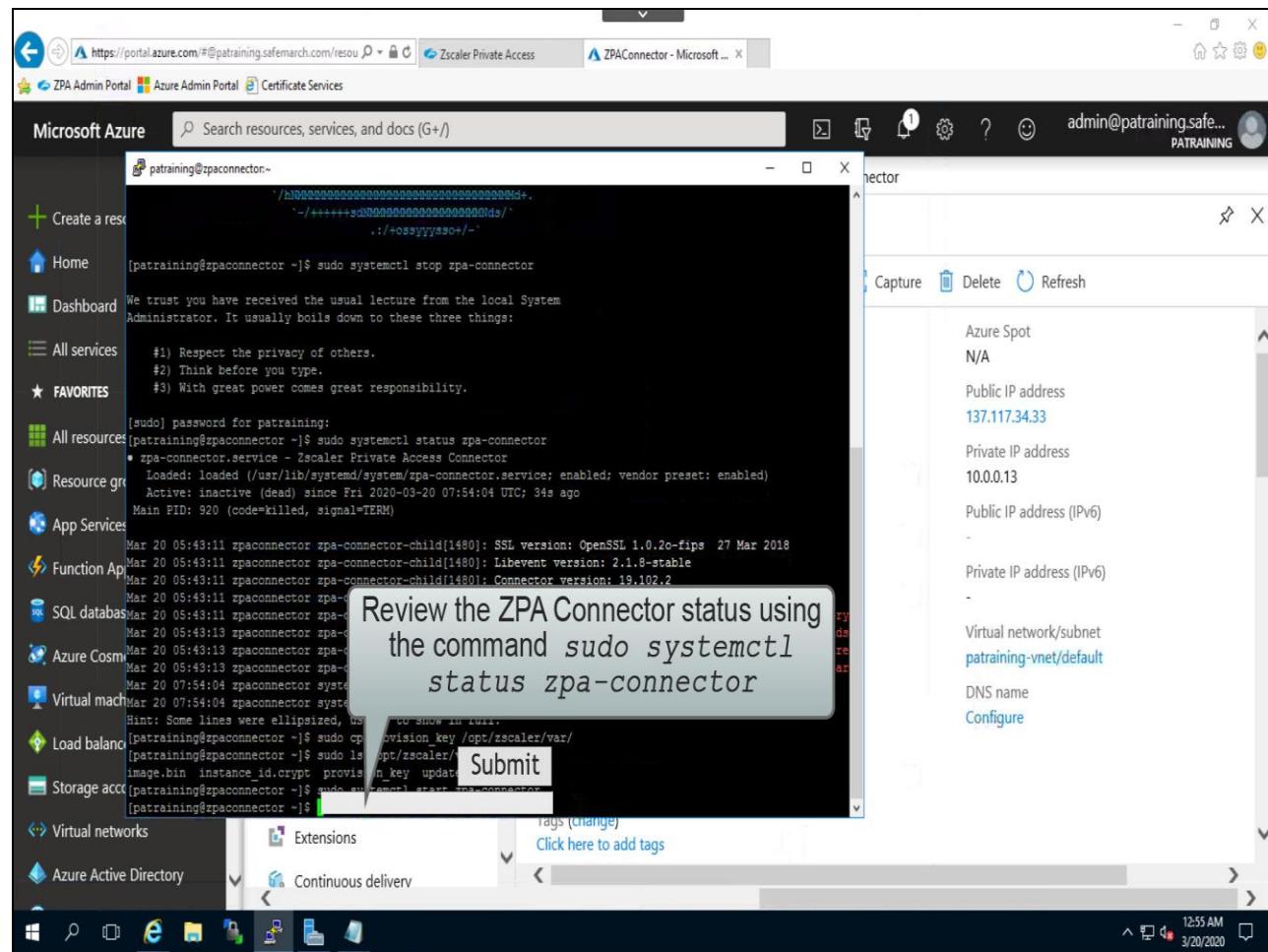
- Azure Spot: N/A
- Public IP address: 137.117.34.33
- Private IP address: 10.0.0.13
- Public IP address (IPv6): -
- Private IP address (IPv6): -
- Virtual network/subnet: patraining-vnet/default
- DNS name: Configure

Slide notes

Make sure that the provisioning key file is listed and that it has the correct file name (**provision_key** in all lower case).

To restart the ZPA Connector service enter the command `sudo systemctl start zpa-connector`.

Slide 39 - Slide 39



Slide notes

Then to verify that the service has started OK, enter the command **sudo systemctl status zpa-connector**.

Slide 40 - Slide 40

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu includes 'Create a resource', 'Home', 'Dashboard', 'All services', 'FAVORITES' (with 'ZPA Admin Portal' selected), 'All resources', 'Resource groups', 'App Services', 'Function Apps', 'SQL databases', 'Azure Cosmos DB', 'Virtual machines', 'Load balancers', and 'Storage accounts'. Below these are 'Virtual networks' and 'Azure Active Directory'. At the top, there are tabs for 'ZPA Admin Portal', 'Azure Admin Portal', and 'Certificate Services'. The main content area shows a terminal window titled 'patraining@zpaconnector~' with the following log output:

```
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: SSL version: OpenSSL 1.0.2o-fips 27 Mar 2018
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: Libevent version: 2.1.8-stable
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: Connector version: 19.102.2
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: Checking Enrollment
Mar 20 05:43:11 zpaconnector zpa-connector-child[1480]: Cannot get provisioning key, please check if pro...ore
Mar 20 05:43:13 zpaconnector zpa-connector[920]: zscaler-update: zpa-connector-child exited too fast, w...ondu
Mar 20 05:43:13 zpaconnector zpa-connector[920]: zscaler-update: zpa-connector-child failed too many ti...ware
Mar 20 05:43:13 zpaconnector zpa-connector[920]: zscaler-update: zpa-connector Default software f...lear
Mar 20 07:54:04 zpaconnector systemd[1]: Stopping Zscaler Private Access Connector...
Mar 20 07:54:04 zpaconnector systemd[1]: Stopped Zscaler Private Access Connector.
```

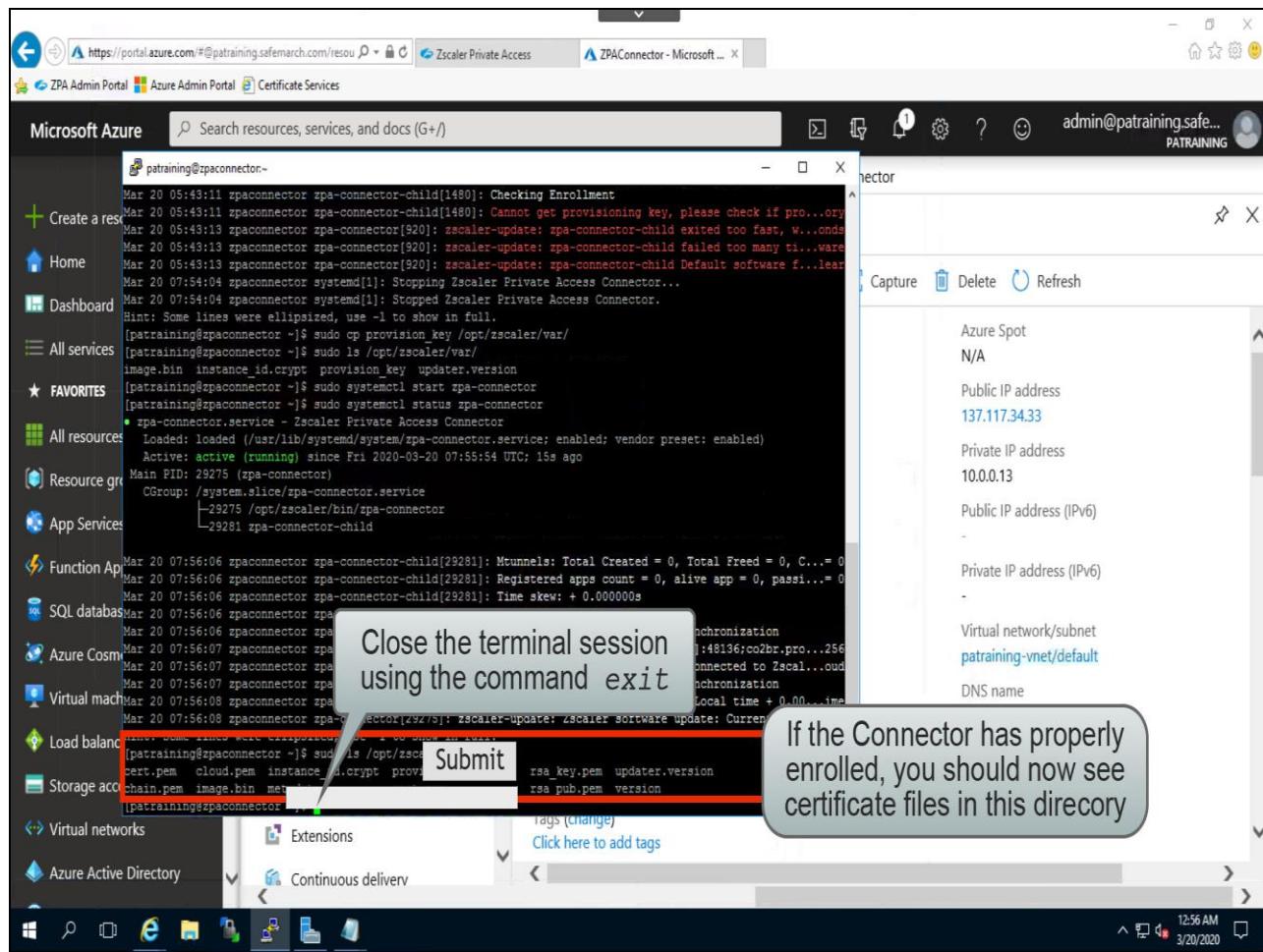
A callout box highlights the status message: "ZPA Connector status should indicate active (running) with no error messages". Another callout box points to the log output: "Check the contents of the ZPA Connector directory using the command sudo ls /opt/zscaler/var/". A red box highlights the terminal window, and a green box highlights the status message in the status bar at the bottom right.

Slide notes

The ZPA Connector status should now indicate **active (running)**, with no error messages indicated in the log messages.

Another check is to confirm that the Connector has been provisioned with the required certificates, so enter the command **sudo ls /opt/zscaler/var/**.

Slide 41 - Slide 41



Slide notes

You should now see a set of certificate related files in that directory (**cert.pem**, **chain.pem**, **'root.pem'**, etc.).

To close the terminal session, enter the command **exit**.

Slide 42 - Slide 42

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes links for ZPA Admin Portal, Azure Admin Portal, and Certificate Services. The main search bar contains the placeholder "Search resources, services, and docs (G+/" followed by a magnifying glass icon. The user's email, "admin@patraining.safe...", and name, "PATRINING", are displayed in the top right corner.

The left sidebar menu lists various Azure services: Create a resource, Home, Dashboard, All services, Favorites, All resources, Resource groups, App Services, Function App, SQL databases, Azure Cosmos DB, Virtual machines, Load balancers, Storage accounts, Virtual networks, and Azure Active Directory.

The main content area displays the "ZPAConnector" virtual machine details. The title bar says "ZPAConnector" under "Virtual machine". Below it, there are tabs for "Overview", "Activity log", "Access control (IAM)", "Tags", "Diagnose and solve problems", "Networking", "Connect", "Disks", "Size", "Security", "Extensions", and "Continuous delivery".

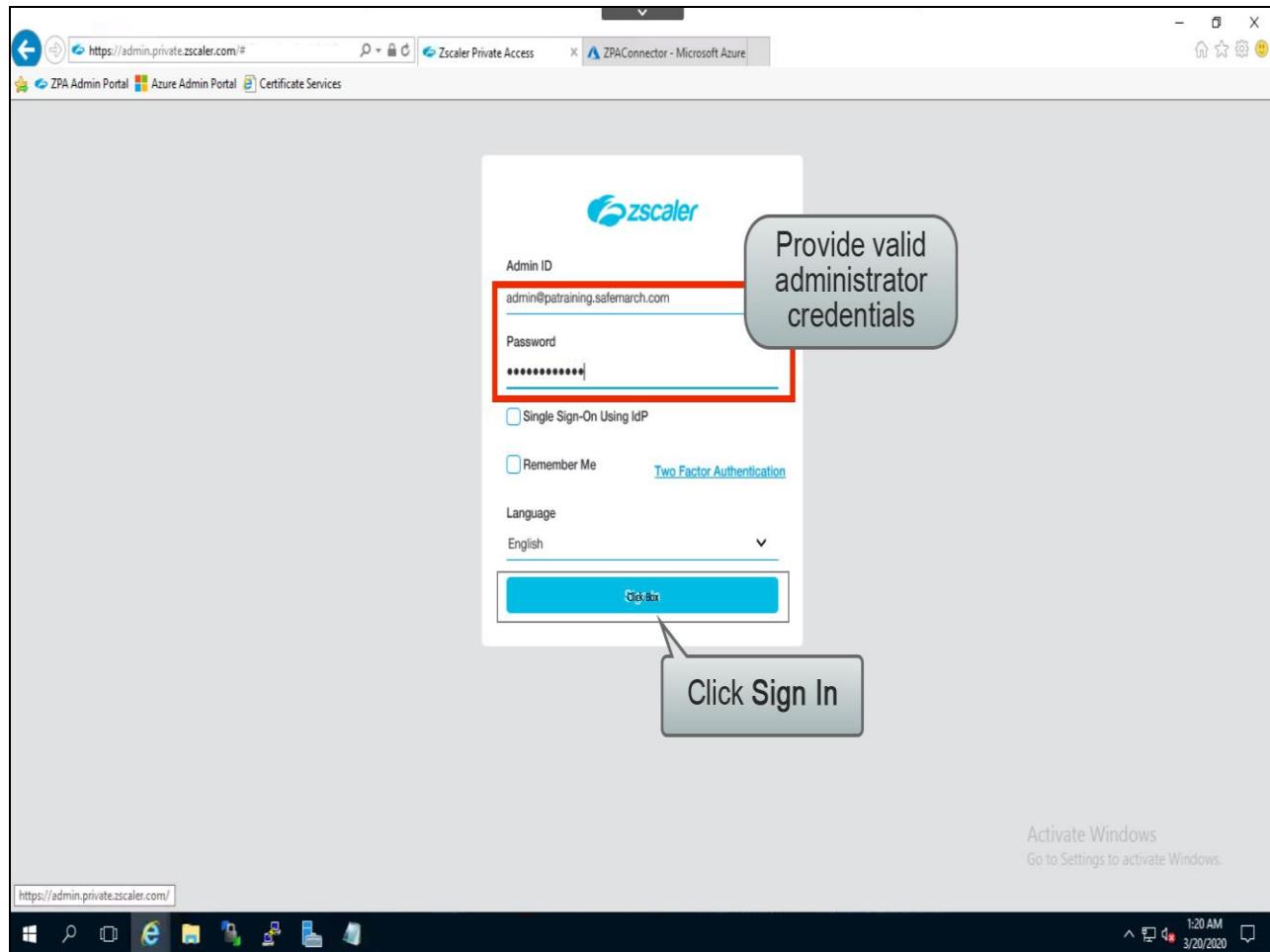
The "Overview" tab is selected, showing the following information:

Setting	Value
Azure Spot	N/A
Status	Running
Location	East US
Subscription	patraining
Subscription ID	e9ea4f2a-9b06-42fc-8687-396fab4d872a
Computer name	zpaconnector
Operating system	Linux (centos 7.3.1611)
Size	Standard B2s (2 vcpus, 4 GiB memory)
Tags	Click here to add tags

At the bottom of the main content area, there are buttons for "Connect", "Start", "Restart", "Stop", "Capture", "Delete", and "Refresh". The status bar at the bottom right shows the time as 12:56 AM and the date as 3/20/2020.

Slide notes

Slide 43 - Slide 43



Slide notes

To check the status of the Connector at the ZPA Admin Portal, open the Admin Portal in a browser. Enter valid admin user credentials, configure sign on options as necessary and click **Sign In**.

Slide 44 - Slide 44

The screenshot shows the Zscaler Private Access (ZPA) Admin Portal dashboard. The left sidebar contains several navigation menus: Application Management, Authentication, Diagnostics, Live Logs, Administration (with a red box around it), Certificate Management, Connector Management (with 'Connectors' highlighted and a tooltip 'Click Connectors' pointing to it), Log Stream, Policy Management, Reporting, and Executive Insights App. The main dashboard area displays various metrics: Discovered Applications (0), Access Policy Blocks (0), Successful Transactions (4), Top Applications by Bandwidth (host-1.patraining.safemarch.com at 7.78 KB), and Top Policy Blocks (100% of Total Transactions). A Windows taskbar at the bottom shows the date (3/20/2020) and time (1:21 AM).

Slide notes

From the Administration menu, under CONNECTOR MANAGEMENT, click Connectors, ...

Slide 45 - Slide 45

The screenshot shows the Zscaler Private Access (ZPA) Admin Portal interface. On the left, there's a vertical sidebar with icons for Dashboard, Diagnostics, Live Logs, Administration, Search, and Zscaler App. The main content area has a header with tabs: Connectors (which is selected), Connector Groups, and Connector Provisioning Keys. Below the header is a search bar and an 'Add Connector' button. A table lists connectors with columns: Name, Status, Session, Update Status, Current Software Version, and Actions. Two rows are visible: 'Azure Box' and 'OnPrem-1'. Both connectors have a green checkmark in the Status column and 'Authenticated' in the Session column. The 'Update Status' column for 'Azure Box' shows 'Scheduled 1'. The 'Current Software Version' column shows '19.102.2'. The 'Actions' column for each row contains edit, delete, and refresh icons. A callout box points to the 'Azure Box' row with the text 'Click the name of the Connector'. Another callout box points to the 'Status' column of the same row with the text 'Verify that the Connector is listed and status is OK'.

Name	Status	Session	Update Status	Current Software Version	Actions
Azure Box	OK	Authenticated	Scheduled 1	19.102.2	
OnPrem-1	OK	Authenticated			

Slide notes

...and verify that the Azure Connector is listed and indicates a status of **OK**. To view full details for the Connector, click on the name.

Slide 46 - Slide 46

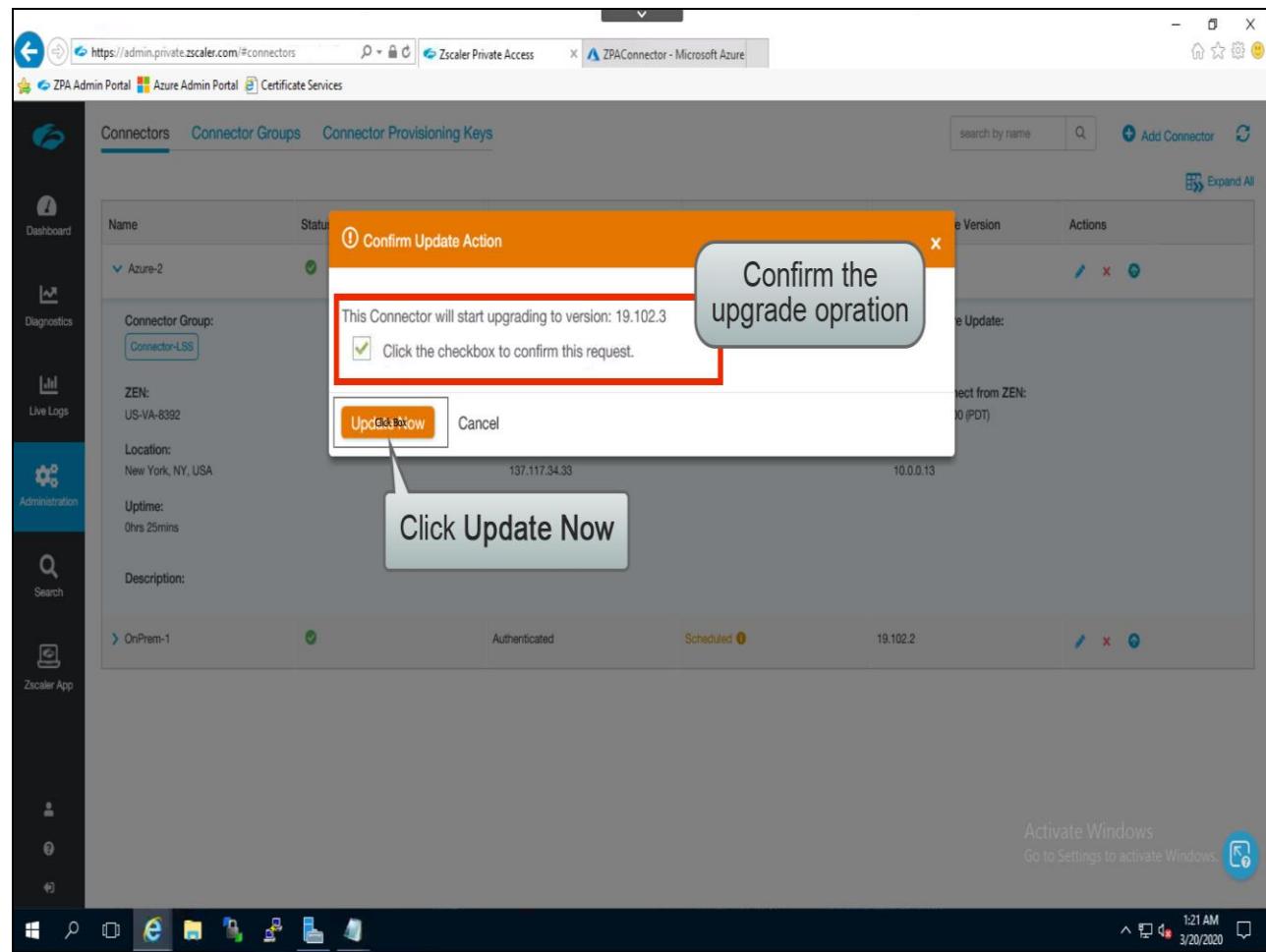
The screenshot shows the Zscaler Admin Portal interface. On the left, there is a vertical sidebar with icons for Dashboard, Diagnostics, Live Logs, Administration, Search, and Zscaler App. The main content area is titled 'Connectors' and displays a table of connectors. The table columns are: Name, Status, Session, Update Status, Current Software Version, and Actions. There are two rows visible: 'Azure-2' and 'OnPrem-1'. The 'Azure-2' row has its 'Update Status' cell highlighted with a red border. A tooltip box with the text 'Check the Update Status' is positioned over this cell. In the 'Actions' column for the 'Azure-2' row, there is a button labeled 'Update Now'. A second tooltip box with the text 'Click the Update Now icon' is positioned over this button. The 'Current Software Version' column shows '19.102.2' for 'Azure-2' and '19.102.1' for 'OnPrem-1'. The 'Actions' column for 'Azure-2' contains icons for edit, delete, and refresh. The 'Actions' column for 'OnPrem-1' also contains similar icons. At the bottom right of the main area, there is a 'Activate Windows' message: 'Go to Settings to activate Windows.' with a link icon. The bottom of the screen shows the Windows taskbar with various pinned icons and the system tray.

Slide notes

Check the **Update Status** of the Connector: If it indicates **Success**, this means that the Connector is at the latest version of software and no update is necessary. If it is blank, or indicates **Failure**, refresh the page, or navigate away from the page and come back to it, the status should change to either **Success** or **Scheduled**.

If it indicates **Scheduled**, this means that a software update is required and will take place automatically at the next scheduled update interval for the Connector Group. To manually start the update immediately, click the **Update Now** control for the Connector.

Slide 47 - Slide 47



Slide notes

In the pop-up window click in the check box to confirm the request, then click **Update Now**.

Slide 48 - Slide 48

Name	Status	Session	Update Status	Current Software Version	Actions
Azure-2	Authenticated		Scheduled	19.102.2	
OnPrem-1	Authenticated		Scheduled	19.102.2	

Slide notes

Now, when you Mouse-over or click the connector status of **Scheduled**, ...

Slide 49 - Slide 49

The screenshot shows the Zscaler Private Access (ZPA) Admin Portal interface. The main content area is titled "Connectors" and lists two entries:

Name	Status	Session	Update Status	Actions
Azure-2	Authenticated		Scheduled 0	(Edit, Delete, Details)
OnPrem-1	Authenticated		Scheduled 0	(Edit, Delete, Details)

A tooltip for the "Azure-2" row provides specific details about its scheduled update:

- Scheduled Version: 19.102.3
- Upgrade Window: Mar 20, 01:26 AM - 05:26 AM (PDT)

The left sidebar contains navigation links for Dashboard, Diagnostics, Live Logs, Administration, Search, and Zscaler App. The top navigation bar includes links for ZPA Admin Portal, Azure Admin Portal, and Certificate Services. The top right corner shows standard browser controls and a system tray with the date and time.

Slide notes

...you should see that the **Upgrade Window** field now reflects the current date and time.

Slide 50 - Slide 50

The screenshot shows the Zscaler Private Access (ZPA) Admin Portal. The main page is titled "Connectors". There are two entries in the table:

Name	Status	Session	Update Status	Current Software Version	Actions
Azure-2	✓	Authenticated	Scheduled 1	19.102.2	
OnPrem-1	✓	Authenticated	Scheduled 1	19.102.2	

The left sidebar has the following navigation items:

- Dashboard
- Diagnostics
- Live Logs
- Administration
- Search
- Zscaler App

The bottom right corner of the screen shows a Windows notification: "Activate Windows Go to Settings to activate Windows." The bottom taskbar shows the date and time as 3/20/2020 1:24 AM.

Slide notes

Slide 51 - Slide 51

The screenshot shows the Zscaler Private Access (ZPA) Admin Portal interface. The main window displays the 'Connectors' page. There are two entries in the table:

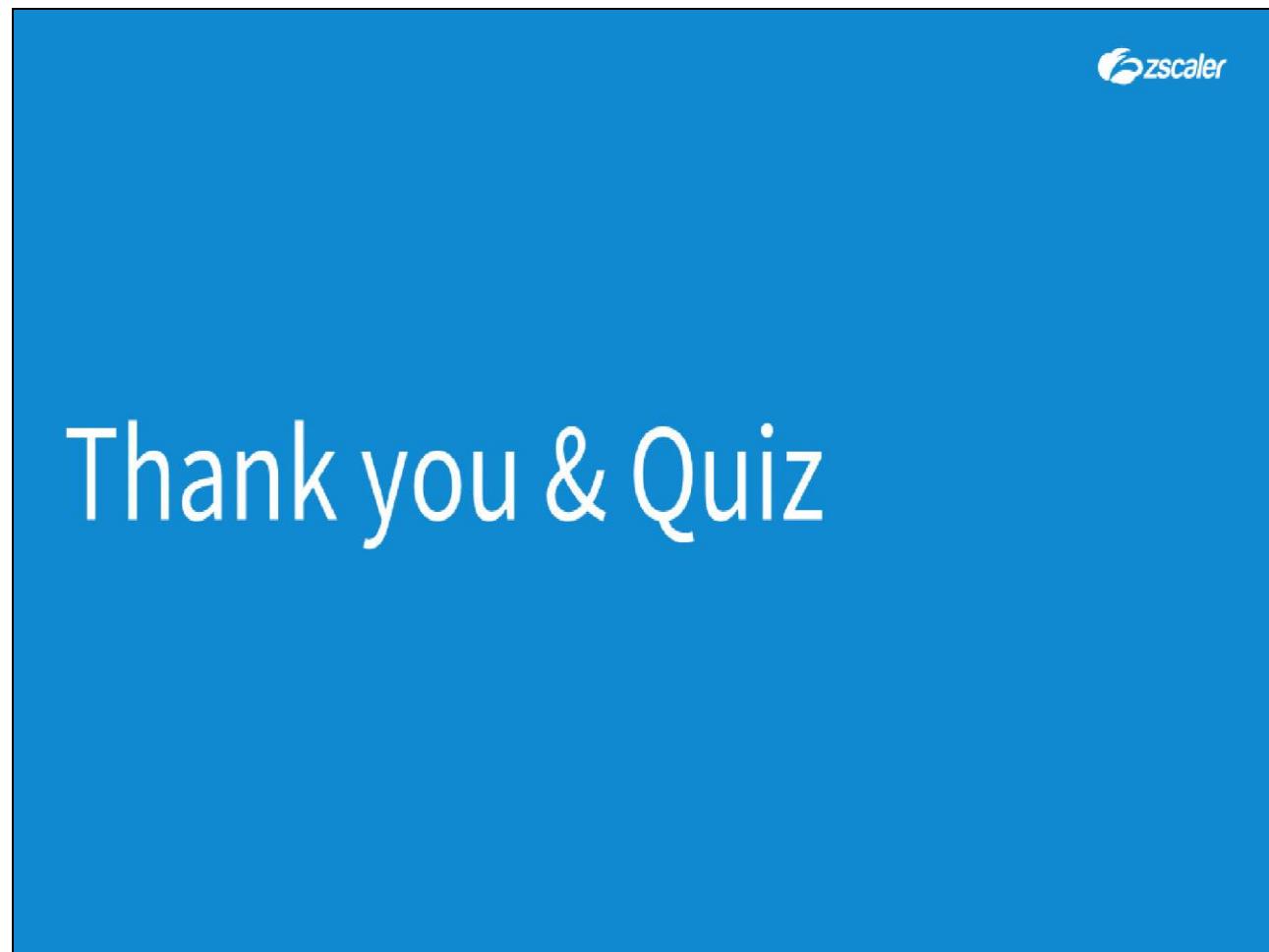
Name	Status	Session	Update Status	Current Software Version	Actions
Azure-2	Authenticated	Success	19.102.3		
OnPrem-1	Authenticated	Scheduled	19.102.2		

The left sidebar includes links for ZPA Admin Portal, Azure Admin Portal, and Certificate Services. The bottom right corner of the screen shows a Windows notification for activating Windows.

Slide notes

Once the update is complete, the status will show **Success**.

Slide 52 - Thank you & Quiz

**Slide notes**

Thank you for following this Zscaler training module, we hope this module has been useful to you and thank you for your time.

What follows is a short quiz to test your knowledge of the material presented during this module. You may retake the quiz as many times as necessary in order to pass.