# 在Azure雲服務上安裝ISE

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## 簡介

本文檔介紹如何使用Azure虛擬機器安裝Cisco ISE IOS例項。Cisco ISE IOS在Azure雲服務上可用。

必要條件

需求

思科建議您瞭解訂用和資源組。

採用元件

本文檔的內容基於這些軟體和雲服務。

- Cisco ISE版本3.2。
- Microsoft Azure雲服務

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除(預設))的組態來啟動。如果您的網路運作中,請確保您瞭解任何指令可能造成的影響。

程式

導航到所有服務>訂用。確保存在具有活動訂閱的Azure帳戶以及與Microsoft的企業協定。使用 Microsoft PowerShell Azure模組CLI執行命令以保留空間:(請參閱<u>如何安裝Azure PowerShell</u>,以 便安裝電源外殼和相關包)。

Connect-AzAccount -TenantID <Tenant-ID> Register-AzResourceProvider -ProviderNamespace Microsoft.AVS | Register-AzResourceProvider -ProviderNamespace Microsoft.Batch



注意:用您的實際租戶ID替換租戶ID。

在以下位置完成必備條件<u>請求Azure VMware解決方案的主機配額</u>以獲取更多詳細資訊。 在右側的訂閱後建立資源組,導航到所有服務>資源組。按一下「新增」。輸入資源組名稱。

#### Home > Resource groups >

#### Create a resource group

Basics Tags Review + create

**Resource group** - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. Learn more  $C^{3}$ 

Project details		
Subscription * 🕕		$\sim$
Resource group * ①	recourse-group-name	~
Resource details		
Region * <sup>①</sup>	(US) East US	~

### 虛擬網路和安全組

需要網際網路可達性的子網必須配置路由表,將下一跳作為internet。請參閱公用子網和專用子網示例。具有公共IP的PAN同時具有離線和聯機源更新,而具有專用IP的PAN必須依賴於離線源更新。

Microsoft Asses	2.0	inands resources, services, and door (S-A		0 Q Ø Ø Ø	R .			
Home 3 Virtual retworks 3								
Create virtual netwo	ork -		Home > SST-Vnet > PublicRout	eTable				
latio P Addresse Securi	ty Taga Anvina - create		PublicRouteTab	e   Routes 🌶 –				
The virtual network's address space	specified as one or more address prefixe	es in CIDA notation (e.g. 1921168.1.0/D4)	Search (Cov(s))	- + AM				
Pvt address space			Dr. march (control)					
112428-016		<ul> <li>Image: A set of the set of the</li></ul>	Cveniew	,O Bearch routes				
			Activity log	Name	12 Address prefix	T <sub>4</sub> Next hop type	1; Next hop IP address	- 74
Ald Pul address space O			Access control (AM)	DM2-1	10100010	VITUE NETWORK DESIGN		
The subnet's address range in CO network.	Restation (e.g. 152,168,14/24), it must b	e contained by the address space of the virtual	• Tapi	DM2-2	192.168.159-0/24	Virtual network gateway	4	
+ All admit (2) homes and	laner.		Ø Diagnose and solve probleme	internet	02050	Internet		_
District name	Subnet address range	NUMT gateway	Settings	Local	111.11.1.1.1.1	Vistori asturali		
SET Submer Public	172.42.8-9/20							
SST-Submet Private	172.42.16.0.29							
Stif Same Patrice	172.42.32.0/20							
SST Submet Private 2	172.42.48.0/20							
C Lise of a NAT gateway is recommended in the analyse of the pick charter the pick chart	ended for autocurid internet access from a sc orbait retreach, Latern more (?	dnet fee on deploy a NET galaxies and assign	PrivateRouteTable	Routes &				×
			P Search (Cmd+/) = =	+ A60				
			Cverview	,○ Bearch routes				
Review 4 control	( Berline ) Net Sele	the American American Street and American	Activity log	Name	14 Address prefix	T <sub>2</sub> Next hop type	To Next hop IP address	74
			Access control (AM)	DM2-1	10.10.0.0/16	Virtual network gateway	+	
			🔮 Tags	DM2-2	192.168.139.0/24	Virtual network gateway		
			Diagnose and solve problems	Local	172.42.00/16	Virtual network		

#### 建立SSH金鑰對

a.使用Azure Web Portal首頁上的搜尋欄搜尋SSH金鑰。

Microsoft Azure		E & 🖉 @ O	R
Azure Services	All       Services (5)       Marketplace (1)       Documentation (99+)       Resources (0)       Resource Groups (0)         Azure Active Directory (0)       Services         Services       SSH keys       QnA makers         2 <sup>2</sup> Bitiocker Keys       Resource Keys       Resource Keys	► rvices	
Resources	T Key vaults		
Recent Favorite	C SSH Key		

## b.在下一個窗口中,按一下Create。

Microsoft Azure	$\mathcal{P}^{-}$ Search resources, services, and docs (G+/)		
Home >			
SSH keys 🖈 ··· Click Create			
+ Create 🕲 Manage view $\lor$ 🕐 Refresh 🐇	Export to CSV 😽 Open query 🛛 🕅 Assign tags		
Filter for any field Subscription equals all	Resource group equals all $  imes $ Location equals all $  imes $ $ \mbox{the source} $ Add filter		
Showing 0 to 0 of 0 records.			
Name 🛧	Type ↑↓	Resource group ↑↓	Location $\uparrow_{\downarrow}$
		ę	
	Or Use This Option No SS	6H keys to display	
	SSH is an encrypted connection p-tocol that a secure connection p-tocol that a	llows secure sign-ins over unsecured connectional machines, without having to use passwords.	ons. SSH keys allow
		Create SSH key	

## c.在下一個窗口中,選擇Resource Group和Key Name。然後按一下Review + Create。

Home > SSH keys >		
Create an SSH key		
,		
Basics         Tags         Review + create           Creating an SSH key resource allows you to Learn more         Project details           Project details         Select the subscription to manage deploye your resources.	o manage and use public keys stored in Azure with Linux virtual machines. d resources and costs. Use resource groups like folders to organize and manage all	Select Resource group you created from D
Subscription * ①	ry-tac-rrh-aaa-azura	Drop Down List
Resource group * ()	(New) resource-group-name	
Instance datails		Create Kay Bala Nama
Region * (i)	(US) East US	Create Key Pair Name
Key pair name *	key-pair-name	
SSH public key source	Generate new key pair	
Clic	k Review + Create	
Review + create < Previ	ous Next : Tags >	

d.然後按一下Create並下載Private Key。



## 思科ISE支援的Azure VM大小

Azure VM Sizes	vCPU	RAM (in GB)
Standard_D4s_v4	4	16
(This instance supports the Cisco ISE evaluation use case. 100 concurrent active endpoints are supported.)		
Standard_D8s_v4	8	32
Standard_F16s_v2	16	32
Standard_F32s_v2	32	64
Standard_D16s_v4	16	64
Standard_D32s_v4	32	128
Standard_D64s_v4	64	256

- Fsv2系列Azure VM大小經過計算最佳化,最適合用作計算密集型任務和應用程式的PSN。
- Dsv4系列是一般用途的Azure VM大小,最適合用作PAN或MnT節點或兩者,用於資料處理任 務和資料庫操作。

如果您使用一般用途執行處理作為PSN,則效能數值會低於作為PSN之計算最佳化執行處理的效能。Standard\_D8s\_v4 VM大小只能用作額外的小型PSN。



注意:請勿克隆現有Azure雲映像以建立思科ISE例項。執行此操作可能導致所建立的ISE機 器出現隨機和意外故障。

Microsoft Azure雲服務中Cisco ISE的限制

 如果您<u>使用Azure虛擬機器</u>建立<u>Cisco ISE</u>,預設情況下,Microsoft Azure透過DHCP伺服器向 VM分配專用IP地址。在Microsoft Azure上建立思科ISE部署之前,您必須使用Microsoft Azure分配的IP地址更新轉發和逆向DNS條目。

或者,在安裝思科ISE後,透過更新Microsoft Azure中的網路介面對象為虛擬機器分配靜態 IP地址:

- 1. 停止虛擬機器。
- 2. 在VM的「專用IP地址設定」區域的「分配」區域中,按一下靜態。
- 3. 重新啟動虛擬機器。

4. 在思科ISE串列控制檯中,將IP地址分配為Gi0。

5. 重新啟動Cisco ISE應用伺服器。

- 只有兩個NIC(千兆乙太網0和千兆乙太網1)支援雙NIC。為了在思科ISE例項中配置輔助 NIC,您必須首先在Azure中建立網路介面對象,關閉思科ISE例項的電源,然後將此網路介面 對象附加到思科ISE。在Azure上安裝並啟動Cisco ISE後,使用Cisco ISE CLI手動將網路介面 對象的IP地址配置為輔助NIC。
- Cisco ISE升級工作流程在Microsoft Azure上的Cisco ISE中不可用。僅支援全新安裝。但是 ,您可以執行配置資料的備份和恢復。
- 公共雲僅支援第3層功能。Microsoft Azure上的思科ISE節點不支援依賴第2層功能的思科 ISE功能。例如,透過Cisco ISE CLI使用DHCP SPAN分析器探測功能和CDP協定功能是當前 不支援的功能。
- 當您執行配置資料的恢復和備份功能時,在備份操作完成後,首先透過CLI重新啟動思科 ISE。然後,從Cisco ISE GUI啟動恢復操作。
- Azure不支援使用基於密碼的身份驗證對思科ISE CLI進行SSH訪問。您只能透過金鑰對訪問 思科ISE CLI,並且必須安全地儲存此金鑰對。如果使用私鑰(或PEM)檔案並且丟失該檔案 ,則無法訪問Cisco ISE CLI。不支援任何使用基於密碼的身份驗證方法訪問Cisco ISE CLI的 整合,例如, Cisco DNA Center 2.1.2版及更早版本。
- Azure上的Cisco ISE IOS部署通常利用動態多點虛擬專用網路(DMVPN)和軟體定義廣域網 (SD-WAN)等VPN解決方案,其中IPSec隧道開銷可能導致MTU和分段問題。在這種情況下 ,思科ISE IOS不會收到完整的RADIUS資料包,並且身份驗證失敗不會觸發故障錯誤日誌。

一種可能的解決方法是尋找Microsoft技術支援,以探索Azure中允許無序片段傳遞至目標而不 被丟棄的任何解決方案。

• CLI管理員使用者必須是「iseadmin」。

## 設定

### 連線到Azure雲的ISE部署示例



• 步驟 1.導航到Azure門戶並登入您的Microsoft Azure帳戶。

Microsoft Azure			urces, servic	es, and docs (G+/)						2	8	Φ	۲	0	R
	Azure services														
	+	<b>\$</b>	[]	*	•	۲		SQL	<b>S</b>	$\rightarrow$					
	Create a resource	SSH keys	Resource groups	Quickstart Center	Virtual machines	App Services	Storage accounts	SQL database	ns Azure Cosmor DB	More service					
	Resources          Recent       Favorite         Name       Type       Last Viewed         No resources have been viewed recently														
					View all re	sources									
	Navigate	5	()	Resource groups		All resource		21	Dashboard						
	Tools														
	Microsoft Le Learn Azure training from	with free online n Microsoft	۳	Azure Monitor Monitor your apps and infrastructure		Microsoft D Secure your infrastructur	efender for Cloud apps and e	\$	Cost Management Analyze and optim cloud spend for fre	ize your e					

• 步驟 2.請使用窗口頂部的搜尋欄位搜尋Marketplace。

Microsoft Azure		×	5 <b>6</b> 0 @ 0 <i>R</i>
Azure services + Create a resource	All Services (8) Marketplace (31) Documentation Resource Groups (0) Services	n (99+) Azure Active Directory (6) Resources (0)	265
Resources	<ul> <li>Budgets</li> <li>Cost alerts</li> </ul>	S Cost Management	
Recent Favorite	\$1, Cost analysis Marketplace	Managed applications center See all	
Name	Striim VM Subscription	SaaS Accelerator	
	Contoso MPPO SaaS - Seat 1	Fimple Marketplace Offer     Contoso MPPO SaaS - Site 1	
	Tackle Cloud GTM Platform	C Labra Cloud Commerce Management Platform	

• 步驟 3.使用Search the Marketplace搜尋欄位搜尋思科身份服務引擎(ISE)。

= Microsoft Azure		P Search resources, s	services, and docs (G	*/)			E	8	۵	۲	۲	R
Home > Marketplace	115											
Get Started Service Providers	Cisco identity service engine cisco identity service engine	×	$\rm Pricing: All \ \times$	Operating System : All $\times$	Publisher Type : All 🗙	Product Type : All	Publisher name : All	×				
Management	cisco identity services engine											
Private Marketplace Private Offer Management	Cisco Identity Services Engine (ISE) Recommended for you ③											

• 步驟 4.按一下Virtual Machine。

=	Microsoft Azure		P Search resources, ser	vices, and docs (G+/)	2	8	Φ	۲	0	
Hom	e >									
Ma	rketplace									
Get S	tarted									
Servic	e Providers	Cisco Identity Services Engine (ISE)	) × P	Pricing : All 🗶 Operating System : All 🗶 Publisher Type : All 🗶 Product Type : All 🗶	Publisher name : All	×				
		Azure benefit eligible only ③	Azure services only							
Man	agement	Showing 1 to 3 of 3 results for 'Cisco I	dentity Services angine (ISE)'. Clear se	al Machine earch						
Privat	e Marketplace	2 Yes have 1 secults contracted for one	un de la contrata e la contrat	nate elane						
Privat	e Offer Management									
My N	Aarketplace	-duals. CISCO	abab. CitCo	cisco						
	and pass	Cisco Identity Services	Cisco Identity Services	Cisco ISE						
Favor	ites	Engine (DE)	Engine (ISE)	Marcal Kanada Marcal Ka						
Recen	itly created	Cisco Systems, Inc.	Cisco Systems, Inc.	Microsoft Sentinel, Microsoft Co						
Privat	e plans	Cisco Identity Services Engine (ISE)	Abure Application Cisco Identity Services Engine (SE)	Adute Application Streamline security policy						
				management, and reduce operating costs.						
Cate	gories									
Secur	ity (3)		Bring services	Ritzunia						
Netw	orking (2)		frank in C	Contract territor						
AI + 1	Auchine Learning (0)	Create V	Cleate ~	Create V V						

• 步驟 5.在顯示的新窗口中,按一下Create。

	Microsoft Azure	𝒫 Search resources, services, and docs (G+/)
Home	> Marketplace >	
Cisco S	co Identity Services Engine (ISE) 🖈 … ystems, Inc.	
cito Cis	Cisco Identity Services Engine (ISE Cisco Systems, Inc.   Virtual Machine	Add to Favorites
	Plan Cisco Identity Services Engine (ISE) B V	Start with a pre-set configuration
	Want to deploy programmatically? Get started	
Ove	rview Plans + Pricing Usage Information + Support Ratings	+ Reviews

• 步驟 6.在基礎頁籤中:

a.在專案詳細資訊區域,從預訂和資源組下拉選單中選擇所需的值

b.在例項詳細資訊區域,在虛擬機器名稱欄位中輸入值。

c.從Image下拉選單中選擇Cisco ISE image。

d.從Size下拉選單中選擇要用來安裝Cisco ISE的例項大小。選擇思科ISE支援的例項,如標題為 Azure Cloud的表中所列。

思科ISE支援的例項位於<u>Azure雲上的思科ISE</u>部分。

e.在Administrator account > Authentication type區域中,按一下SSH Public Key單選按鈕。

f.在使用者名稱欄位中,輸入iseadmin。

g.從SSH public key source下拉選單中選擇Use existing key stored in Azure。

h.從儲存的金鑰下拉選單中,選擇作為此任務的先決條件而建立的金鑰對。

j.在入站埠規則區域中,點選允許選定埠單選按鈕。

k.在許可區域中,從許可型別下拉選單中選擇其他。



Resource group *	Resource Group You Created	~
	Create new	
Instance details		
Virtual machine name * 💿	ise-vm-name	~
Region * 🛈	(US) East US	$\sim$
Availability options	Availability zone	$\sim$
Availability zone * 💿	Zones 1	$\sim$
	You can now select multiple zones. Selecting multiple zones will create per zone. Learn more o?	e one VM
Security type ③	Standard	$\sim$
Image * 💿	Cisco Identity Services Engine (ISE) BYOL 3.2 - x64 Gen1	~
VM architecture	See al images   Configure VM generation	
/	• x64	
Click Here To Select ISE Image	x64     Arm64 is not supported with the selected image.	
Click Here To Select ISE Image	x64     Arm64 is not supported with the selected image.	
Click Here To Select ISE Image Run with Azure Spot discount ③ Size * ③	x64     Arm64 is not supported with the selected image.     Standard_D32s_v4 - 32 vcpus, 128 GiB memory (\$863.59/month)     See all sizes	~
Click Here To Select ISE Image Run with Azure Spot discount ③ Size * ③	<ul> <li>x64</li> <li>Arm64 is not supported with the selected image.</li> </ul> Standard_D32s_v4 - 32 vcpus, 128 GiB memory (\$863.59/month) See all sizes	~
Click Here To Select ISE Image Run with Azure Spot discount  Size  Administrator account Authentication type	<ul> <li>x64</li> <li>Arm64 is not supported with the selected image.</li> <li>Standard_D32s_v4 - 32 vcpus, 128 GiB memory (\$863.59/month)</li> <li>See all sizes</li> <li>SSH public key</li> </ul>	~



注意:對於「磁碟型別」,可從下拉選單中選擇更多選項。您可以選擇符合您需求的產品 。對於對生產和效能敏感的工作負載,推薦使用高級SSD。

• 步驟 9.在Network Interface區域,從Virtual network、Subnet和Configure network security group下拉選單中,選擇已建立的虛擬網路和子網。



注意:具有公共IP地址的子網接收線上和離線狀態饋送更新,而具有專用IP地址的子網僅接 收離線狀態饋送更新。 Home > Virtual machines >

								٨	
asics	Disks	Networki	ng	Managemen	t Moni	toring	Advanced	Tags	Review + create
efine ne bound earn mo	etwork co and outbo pre 3	nnectivity for ound connec	r your v tivity w	virtual machine vith security gr	e by configu oup rules, o	uring net or place	work interface behind an exis	card (NIC) ting load b	settings You can control ports. balancing Virtual Network You created Or Click Create New
Vetwork	k interfac	e							
When cre	eating a vi	rtual machin	e, a ne	twork interface	e will be cre	ated for	you.		
/irtual ne	etwork *	0		Create n	ew	2			$\sim$
Subnet *	0			Selec	t The Sub	net Yo	ur created		
Public IP	0			Create n	ew				
NIC netw	vork secur	ity group 🛈		O Nor Bas	ne ic vanced				Select Security Group You Created Or Click Create New
Configur	e network	security gro	up *	Create n	ew	/			
Delete pi deleted	ublic IP an ①	d NIC when	VM is						
nable a	ccelerated	networking	0			The	selected imag	e does not	support accelerated networking.
.oad ba	lancing								
ou can	place this	virtual mach	ine in t	he backend po	ool of an ex	isting Az	zure load balar	ncing soluti	ion. Learn more 🖻
Review	v + create		<	Previous	Next : M	lanagem	nent >		
• 步	驟 10	點選下	一步	:管理。	_				
Delete deleteo	public IF d i	and NIC v	vhen \	/M is					
<b>F</b>	accelera	ted netwo	rking	0					

• 步驟 11.在管理頁籤中,保留必填欄位的預設值,然後按一下下一步:高級。

■ Microsoft Azure		${\cal P}$ Search resources, services, and docs (G+/)							
Home > Virtual machines >									
Create a virtual machine									
"Click Next on This Page > Monitoring > Advanced"									
Basics Disks Networking Manage	ement Monitoring Advance	ed Tags Review + create							
Configure management options for your VM.									
Microsoft Defender for Cloud									
Microsoft Defender for Cloud provides unified workloads. Learn more 🖻	security management and advanced	I threat protection across hybrid cloud							
<ul> <li>Your subscription is protected by Microso</li> </ul>	ft Defender for Cloud basic plan.								
Identity									
Enable system assigned managed identity ①	]								
Azure AD									
Login with Azure AD 🕠	]								
A This image does not support Login with Az	zure AD.								
Auto-shutdown									
Enable auto-shutdown ①	]								

Home > Virtual machines >

## Create a virtual machine

Basics Dis Configure more	ks Networking	Management our VM.	Monitoring	Advanced	Tags Review Premium SS	+ create SD "Recommended Type or Production "
Alerts Enable recom	mended alert rules 🛈					
Diagnostics	irs (i)	Enable	with managed s	torage account	(recommended)	
boot diagnost		C Enable	with custom sto	rage account		
Enable OS gue	est diagnostics ①					



• 步驟 12.在User data區域中,選中Enable user data覈取方塊。

在User data欄位中,填寫以下資訊:

hostname=<Cisco ISE的主機名>

primarynameserver=<IPv4地址>

dnsdomain=<域名>

ntpserver=<IPv4地址或NTP伺服器的FQDN>

timezone=<timezone>

password=<password>

ersapi=<是/否>

openapi=<是/否>

pxGrid=<是/否>

pxgrid\_cloud=<是/否>



注意:對於透過使用者資料條目配置的每個欄位,必須使用正確的語法。您在「使用者資料」欄位中輸入的資訊在輸入時不會經過驗證。如果您使用錯誤的語法,當您啟動映像時 ,思科ISE服務不會出現。

有關必須透過使用者資料欄位提交的配置,請參閱準則:

a.主機名:輸入僅包含字母數字字元和連字元(-)的主機名。主機名的長度不能超過19個字元,並且 不能包含下劃線(\_)。

b.主名稱伺服器:輸入主名稱伺服器的IP地址。僅支援IPv4地址。

在此步驟中,您只能增加一個DNS伺服器。您可以在安裝後透過Cisco ISE CLI增加其他DNS伺服器

o

c. dnsdomain:輸入DNS域的FQDN。條目可以包含ASCII字元、數字、連字元(-)和句點(.)。

d. ntpserver:輸入必須用於同步的NTP伺服器的IPv4地址或FQDN。

在此步驟中只能增加一個NTP伺服器。您可以在安裝後透過Cisco ISE CLI增加其他NTP伺服器。使用有效且可訪問的NTP伺服器,因為ISE操作需要此伺服器。

e.時區:輸入時區,例如Etc/UTC。建議您將所有思科ISE節點設定為協調世界時(UTC)時區,特別 是如果您的思科ISE節點安裝在分散式部署中。此程式可確保來自部署中各個節點的報告和記錄的 時間戳始終同步。

f.密碼:配置基於GUI的登入思科ISE的密碼。您輸入的密碼必須符合Cisco ISE密碼策略。密碼必須 包含6到25個字元,且至少包含一個數字、一個大寫字母和一個小寫字母。密碼不能與使用者名稱 相同,也不能與使用者名稱相反(iseadmin或nimdaesi)、cisco或ocsic。允許的特殊字元為 @~\*!,+=\_-。請參閱<u>Cisco ISE管理員指南</u>的「基本設定」一章中的「使用者密碼策略」一節瞭解 您的版本。

g. ersapi:輸入yes以啟用ERS,或輸入no以禁止ERS。

h. openapi:輸入yes以啟用OpenAPI,或輸入no以禁止OpenAPI。

i. pxGrid:輸入yes以啟用pxGrid,或輸入no以停用pxGrid。

j. pxgrid\_cloud:輸入yes以啟用pxGrid雲,或輸入no以停用pxGrid雲。要啟用pxGrid雲,必須啟用 pxGrid。如果停用pxGrid,但啟用pxGrid雲,則在啟動時不會啟用pxGrid雲服務。



#### Performance (NVMe)

Enable capabilities to enhance the performance of your resources.

Higher remote disk storage performance with NVMe ①

The selected image and size are not supported for NVMe. <u>See supported VM images and sizes</u> and <u>sizes</u>

#### Host

Azure Dedicated Hosts allow you to provision and manage a physical server within our data centers that are dedicated to your Azure subscription. A dedicated host gives you assurance that only VMs from your subscription are on the host, flexibility to choose VMs from your subscription that will be provisioned on the host, and the control of platform maintenance at the level of the host. Learn more

Host group (i)	No host groups found	$\sim$	
----------------	----------------------	--------	--

#### **Capacity reservations**

Capacity reservations allow you to reserve capacity for your virtual machine needs. You get the same SLA as normal virtual machines with the security of reserving the capacity ahead of time. Learn more 3

C	Alan Alan	-	
Review + create	< Previous	Next : Tags >	

使用者資料段落

• 步驟 13.點選下一步:標籤。

#### Performance (NVMe)

Enable capabilities to enhance the performance of your resources.

Higher remote disk storage performance with NVMe (i)	The selected image and size are not supported for NVMe. See supported VM images and sizes
Review + create < Prev	vious Next : Tags >

### • 步驟 14.要建立名稱-值對並合併多個資源和資源組,請在名稱和值欄位中輸入值。

Home > Virtual machines >

Creat	e a vi	rtual mac	hine							k
Basics	Disks	Networking	Manag	gement	Monitoring	Advanced	Tags	Review + create		
Tags are multiple	name/valu resources	e pairs that enab and resource gro	le you to ups. <mark>Lear</mark>	categoriz	e resources and	view consolidat	ed billing	by applying the same ta	ag to	
Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.										
Name	D			Value 🛈			Resource			
	Tag	Name	:		Value Name		13 select	ed $\checkmark$	]	

• 步驟 15.點選下一步:檢視+建立。

Review + create	< Previous	Next : Review + create >

• 步驟 16.檢視您目前提供的資訊,然後按一下Create。

會顯示Deployment is in progress視窗。建立思科ISE例項並可供使用大約需要30分鐘。Cisco ISE VM例項顯示在 虛擬 Machines窗口(使用主搜尋欄位以查詢該窗口)。

#### Home > Virtual machines >

#### Create a virtual machine

Validation passed				
Preferred e-mail address				
Preferred phone number				
Basics				
Subscription				
Resource group				
Virtual machine name				
Region				
Availability options	Availability zone			
Availability zone	1			
Security type	Standard			
Image	Cisco Identity Services En	gine (ISE) BYOL 3.2 - Gen1		
VM architecture	x64			
Size	Standard D16s v4 (16 vcp	us, 64 GiB memory)		
Authentication type	SSH public key			
Username	iseuser			
Key pair name				
Azure Spot	No			
Disks				
Create	< Previous Next > Do	wnload a template for automation		
CreateVm-cisco ci	sco-iso-virtual-cisco-iso 3	2-20230926145056 Overview	A	
Deployment	sco-ise-vii tuai-cisco-ise_s	_2-20230320143030   Overview 3	~	
O Search a	🗊 Delete 🚫 Cancel 🕮 Redeolov	Download     Defresh		
Overlag				
Overview	Deployment is in pro	ogress		
Inputs	Deployment name: CreateVm-cisc	o.cisco-ise-virtual-cisco-ise_3_2-2 Start time: 9/26/2023, 4:0	06:05 PM	
Outputs	Subscription: Resource group:	Correlation ID:	6	
Template	nesource group.			
	<ul> <li>Deployment details</li> </ul>			
	Resource	Туре	Status	Operation details
	Ð	Microsoft.Compute/virtualMachines	Created	Operation details
	0	Microsoft.Network/networkInterfaces	Created	Operation details
	0	Microsoft.Network/virtualNetworks	ок	Operation details
	0	Microsoft Network/publicInAddresses	OK	Operation datails
	0	Microsoft National Anatomic Carvait Converse	OK.	Operation details
	•	microsoft rework/networkseconyGroups	vn	operation details
	Give feedback			
	${\mathcal R}$ Tell us about your experience with depl	oyment		

下一步工作

由於Microsoft Azure預設設定,您建立的思科ISE VM僅配置為300 GB磁碟大小。Cisco ISE節點通 常需要300 GB以上的磁碟大小。首次從Microsoft Azure啟動Cisco ISE時,您可以看到Insufficient Virtual Memory警報。

在思科ISE VM建立完成後,登入思科ISE管理門戶以驗證思科ISE已設定。然後,在Microsoft

Azure門戶中,執行並完成虛擬機器窗口中的步驟以編輯磁碟大小:

1. 停止Cisco ISE例項。

Home >								
isedemo-cybersec	x x							
✓ Search «	💋 Connect 🕞 Start		🗌 Stop 🔀 Capture	📋 Delete	🕐 Refresh	Open in mobile	📯 Feedback	🛃 CLI / PS
Verview	A Freedola							
Activity log	Essentials							
Access control (IAM)	Resource group (move)	:						Operating system
A	Status	: Running						Size
Tags	Location	:						Public IP address
× Diagnose and solve problems	Subscription (move)	:					1	Virtual network/subnet
Settings	Subscription ID	:						DNS name
2 Networking	Availability zone	: 1						Health state
Ø Connect	Tags ( <u>edit</u> )	:						
a Disks								
📮 Size	Properties Monitor	ring Cap	pabilities (7) Recom	mendations	Tutorials			

## 2. 在左側窗格中按一下Disk,然後按一下要與Cisco ISE一起使用的磁碟。

Home > isedemo-cybersec									
sedemo-cybersec   Disks * ···· 2									
₽ Search «	🗟 Save 🗙 Discard 🕐 Refresh 🛛 🔘 Add	itional settings 🔗 Feedback	🥟 Troubleshoot						
Overview	OS disk								
Activity log	≓ Swap OS disk								
Access control (IAM)	Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (	Encryption ③			
🕈 Tags	isedemo-cybersec_OsDisk_1_d144bfa962e94fd6a244	d3 Premium SSD LRS	300	2300	150	SSE with PMK			
X Diagnose and some problems									
Settings	Data disks								
2 Networking	Filter by name								
Ø Connect	Showing 0 of 0 attached data disks								
B Disks	+ Create and attach a new disk 💋 Attach exist	ing disks	•						
📮 Size	LUN ③ Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (	Encryption ①			
Microsoft Defender for Cloud									

## 3. 按一下左側窗格中的大小+效能。

He	ome > Disks >							
8	CsDisk_1_d144bfa962e94fd6a24d3a28472c55fb 💉 🛪 👘							
×	Search «	+ Create VM + Cr	eate VM image version	+ Create snapsho	t 🗐 Delete 💍 Refr	resh 🛛 R Give feedback		
	Overview	∧ Essentials						
	Activity log	Resource group (move)	:				Disk size	: 300 GiB
80	Access control (IAM)	Disk state	: Reserved				Storage type	: Premium SSD LRS
	Tags	Location	:				Managed by	: isedemo-cybersec
÷.	S Since and a share and have a	Subscription (move)	:				Operating system	: Linux
1	biagnose and solve problems	Subscription ID					Completion percent	: 100
Se	ttings	Time created	: 9/26/2023, 4:06:17 PM	1			Max shares	: 0
-	Configuration						Availability zone	:1
	Size + performance						Performance tier	: P20 - 2300 IOPS, 150 MB/s
۲	Encryption						Security type	: Standard
d	Networking	Tags ( <u>edit</u> )	:					
4	Disk Export							
Ш	Properties	Show data for last:	(	1 hour 6 hours	12 hours 1 day	7 days		
	Locks							

### 4. 在自定義磁碟大小欄位中,輸入所需的磁碟大小(以GiB表示)。

Home >	_OsDisk_1_d144bfa962e94fd6a24d3a28472c55fb					
20	sDisk_1_d144bfa962	e94fd6a24d3a2847	2c55fb   Size + perfe	ormance 🛪 …		
Disk						
P Search «	Storage type					
S Overview	Premium SSD (locally-redundant storage)					
Activity log	Size	Disk tier	Provisioned IOPS	Provisioned throughput	Max Shares 🛈	
Access control (IAM)	4 GiB	P1	120	25	3	
🔷 Tags	8 GiB	P2	120	25	3	
× Diagnose and solve problems	16 GiB	P3	120	25	3	
Settings	32 GiB	P4	120	25	3	
Configuration	64 GiB	P6	240	50	3	
Size + performance	128 GiB	P10	500	100	3	
% Encryption	256 GiB	P15	1100	125	3	
A Networking	512 GiB	P20	2300	150	3	
Disk Export	1024 GiB	P30	5000	200	5	
Properties	2048 GiB	P40	7500	250	5	
Locks	4096 GiB	P50	7500	250	5	
Markeden	8192 GiB	P60	16000	500	10	
Monitoring	16384 GiB	P70	18000	750	10	
Metrics	32767 GiB	P80	20000	900	10	
Automation						
Tasks (preview) 300						
Export template						
Help Discard						

## 安裝後任務

有關成功建立Cisco ISE例項後必須執行的安裝後任務的資訊,請參閱您的Cisco ISE版本的<u>Cisco</u> I<u>SE安裝指南</u>中的「安裝驗證和安裝後任務」一章。

## 在Azure Cloud上恢復並重置密碼

完成幫助您重置或恢復思科ISE虛擬機器密碼的任務。選擇您需要的任務,並執行詳細步驟。

1. 透過串列控制檯重置思科ISE GUI密碼

- 步驟 1.登入到Azure Cloud,並選擇包含您的Cisco ISE虛擬機器的資源組。
- 步驟 2.從資源清單中,點選要重置其密碼的思科ISE例項。
- 步驟 3.從左側選單中的支援+故障排除部分,按一下串列控制檯。

Home > Virtual machines >		
Virtual machines «	Virtual machine	☆ ···
+ Create $\lor$ $\rightleftarrows$ Switch to classic $\cdots$	P Search	« 🖉 Connect 🗁 Start 🤇 Restart 🗌 Stop 🞉 Capture 📋 Delete 🖒 Refresh 🔋 Ope
Filter for any field	Insights	
Name 1	Alerts	Resource group (move) :
📮	ná Metrics	Status : Running
	Diagnostic settings	Location : East US (Zone 1)
	🧬 Logs	Subscription (move) :
	Connection monitor (classic)	Subscription ID :
	Workbooks	Availability zone : 1
		Tags (edit) : Add tags
	Automation	
	🖧 Tasks (preview)	Properties Monitoring Capabilities (7) Recommendations Tutorials
	Export template	
Click Parial Concolo	Help	Computer name
Cilck Serial Console	Sesource health	Operating system Linux (redhat 8.4)
	Boot diagnostics	Image publisher cisco
	Reformance diagnostics	Image offer cisco-ise-virtual
	VM Inspector (Preview)	Image plan cisco-ise_3_2
	Protector (Fleview)	VM generation V1
	Reset password	VM architecture x64
м,	Redeploy + reapply	Agent status Ready
	Serial console	Agent version 2.10.0.3
	Connection troubleshoot	Host group None

• 步驟 4.如果在此處檢視錯誤消息,則必須透過執行完整的步驟啟用引導診斷:

a.從左側選單中按一下Boot Diagnostics。

Home > Virtual machines >	
Virtual machines « cxsecurity	Virtual machine
+ Create $\lor \rightleftharpoons$ Switch to classic $\cdots$	🔎 Search « 🖒 Refresh 🔕 Settings 🧪 Troubleshoot
Filter for any field Name ↑↓ 	♥ Insights     Screenshot     Serial log       ➡ Alerts     Updated: Wednesday, September 27, 2023, 4:11:12 AM UTC     Download screenshot
0	<ul> <li>Diagnostic settings</li> <li>Logs</li> <li>Connection monitor (classic)</li> <li>Workbooks</li> <li>Automation</li> <li>Tasks (preview)</li> <li>Export template</li> <li>Help</li> <li>Resource health</li> <li>Boot diagnostics</li> <li>YM Inspector (Preview)</li> <li>Reset password</li> <li>Reset password</li> <li>Reset password</li> <li>Reset password</li> <li>Serial console</li> <li>Connection troubleshoot</li> </ul>

b.按一下Enable with a custom storage account。然後按一下Save。

Home > Virtual machines > Boot diagnostics >					
Boot diagnostics					
Save X Discard					
Use this feature to troubleshoot boot failures for custom or platform images. Boot diagnostics can be used with a custom storage account or with a pre-provisioned storage account managed by Microsoft. Please download the info you need before switching from managed storage account to custom storage account. Learn more					
Status					
Enable with managed storage account (recommended)					
Enable with custom storage account					
O Disable					
Diagnostics storage account *					
No existing storage accounts in curre 🗸					
Create new					

• 步驟 5.從左側選單中的支援+故障排除部分,按一下串列控制檯。 Azure Cloud Shell將顯示在 新窗口中。如果螢幕為黑色,請按Enter以檢視登入提示。

Microsoft Azure	🔎 Search resources, services, and docs (G+/) 🛛 💀 😗 🖗
Home > Virtual machines > Virtual machines	Virtual machine
+ Create ∨ 22 Switch to classic ···· Filter for any field Name ↑: 	P Search
	0       0       ACCEPT       tcp       • • •       owner UID match 0         1       Serial console       0       0       DROP       tcp       • • •         Connection troubleshoot       2023-09-27703:35:07.859833Z       INFO       ExvHandler       ExtHandler       Set block dev timeout: sda with timeout: 300         Red Hat Customer Portal       2023-09-27703:35:37.801008Z       INFO       ExvHandler       ExtHandler       ExtHandler       ExtHandler       Ret Hat Customer Portal

- 步驟 8.登入串列控制檯。若要登入序列主控台,您必須使用安裝執行處理時設定的原始密碼。
- 步驟 9.請使用application reset-passwd ise iseadmin命令為iseadmin帳戶配置新的GUI密碼。

### 2. 為SSH訪問建立新的公鑰對

透過此任務,您可以向儲存庫中增加其他金鑰對。在Cisco ISE例項配置時建立的現有金鑰對不會被 您建立的新公鑰替換。

- 步驟 1.在Azure雲中建立新公鑰。
- Home > SSH keys >

Create an SSH key	Create	an	SSH	key	ł
-------------------	--------	----	-----	-----	---

Basics Tags Review + create

Creating an SSH key resource allows you to manage and use public keys stored in Azure with Linux virtual machines.

#### Learn more Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

your resources.		Drop Down List			
Subscription * ③		~			
Resource group * 🕕	(New) resource-group-name	<b>∠</b>			
	Courte and				
Instance details Create Key Pair Name					
Region * 🕕	(US) East US	~			
Key pair name *	key-pair-name				
SSH public key source	Generate new key pair	~			
Click Review + Create					
Review + create < P	Review + create < Previous Next : Tags >				

您將看到一個彈出窗口,您可以在其中選擇Download private key and create a resource,從而將 SSH金鑰下載為.pem檔案。

# Generate new key pair

An SSH key pair contains both a public key and a private key. Azure doesn't store the private key. After the SSH key resource is created, you won't be able to download the private key again. Learn more d

## Download private key and create resource

Return to create an SSH key resource

- 步驟 2.要建立新的儲存庫以將公鑰儲存到,請參閱Azure Repos文檔。如果已經有一個可透過 CLI訪問的儲存庫,請跳到步驟3。
- 步驟 3.要導入新的公鑰,請使用命令crypto key import <public key filename> repository <repository name>。
- 步驟 4.導入完成後,您可以使用新公鑰透過SSH登入思科ISE。

### 關於此翻譯

思科已使用電腦和人工技術翻譯本文件,讓全世界的使用者能夠以自己的語言理解支援內容。請注 意,即使是最佳機器翻譯,也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準 確度概不負責,並建議一律查看原始英文文件(提供連結)。