

Successful implementing of Azure Local

Lenovo

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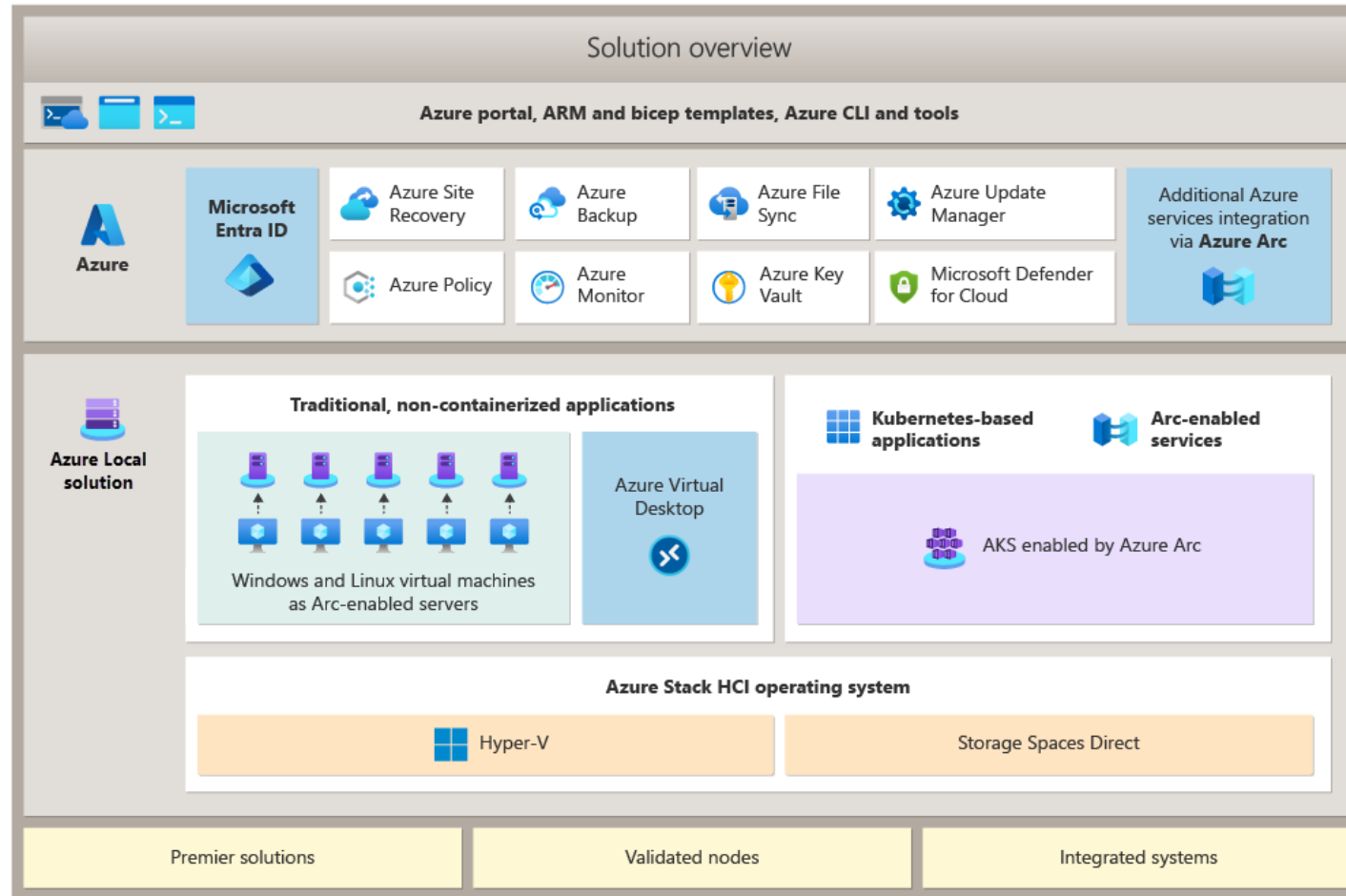


Brian Asferg Nielsen

Technology Architect, Atea



Different node types



Which solution should I get?

Which solution category should I get?			
Feature	Premier Solutions	Integrated Systems	Validated Nodes
Certified hardware with at least 5 years of support	✓	✓	✓
Solution testing frequency ¹	Continuously, by Microsoft and partner	2-4 times per year	Once
Solution update automation	Full-stack updates in a single step	Full-stack updates after sideload of firmware/drivers	Manual, separate software and firmware/driver update
Integrated support queues between Microsoft and solution partner	✓	✓	N/A
Azure Local pre-installed ²	✓	✓	
Available for purchase as a multi-node solution	✓	✓	
Security features enabled by default ³	✓	✓	
Azure Local software support available from solution partner	✓	✓	
Proactive call-home support services available	✓		

Azure Local documentation

The screenshot shows the Azure Local documentation page on the Microsoft Learn website. The browser address bar displays the URL: `learn.microsoft.com/en-us/azure/azure-local/?view=azloc-2508`. The page features a top navigation bar with the Microsoft Learn logo and links to Documentation, Training, Q&A, and Topics. A secondary navigation bar includes links to Azure, Products, Architecture, Develop, Learn Azure, Troubleshooting, and Resources, along with buttons for Portal and Free account. On the left, a sidebar titled 'Version' shows 'Azure Local 2508' selected, with a 'Filter by title' input field. Below this, a list of topics is visible, including Overview, Evaluate, Plan, Review requirements, Review network reference patterns, Review cloud deployment network considerations, Review Azure Arc gateway, Review security, Assess environment readiness, Configure advanced Active Directory settings, Deploy, Read overview, Complete prerequisites, Prepare Active Directory, Download the software, and Install the OS. The main content area is titled 'Azure Local documentation' and includes a breadcrumb 'Learn / Azure /'. A descriptive paragraph states: 'Azure Local is a distributed infrastructure solution enabled by Azure Arc that lets you run virtual machines, containers, and select Azure services.' The content is organized into six cards: 'About Azure Local' (with links for Overview, What is Azure Local?, What's New, and Azure Local disconnected operations), 'Deploy' (with a list of steps: Download the software, Install the OS, Register with Arc, Deploy via the portal, and Deploy via ARM template), 'Update and Upgrade' (with links for How-to Guide, About updates, Update via Azure portal, About upgrades, Upgrade OS, and Upgrade solution), 'Deploy workloads' (with links for Deploy and Deploy Azure Kubernetes Service clusters), 'Manage' (with links for How-to Guide and Manage at-scale), and 'Monitor' (with links for Overview and What is Azure Local monitoring?).

learn.microsoft.com/en-us/azure/azure-local/?view=azloc-2508

Learn | Documentation | Training | Q&A | Topics

Azure | Products | Architecture | Develop | Learn Azure | Troubleshooting | Resources

Portal | Free account

Version

Azure Local 2508

Filter by title

Azure Local documentation

- > Overview
- > Evaluate
- > Plan
 - > Review requirements
 - > Review network reference patterns
 - Review cloud deployment network considerations
 - Review Azure Arc gateway
 - > Review security
 - Assess environment readiness
 - Configure advanced Active Directory settings
- > Deploy
 - Read overview
 - Complete prerequisites
 - 1. Prepare Active Directory
 - 2. Download the software
 - 3. Install the OS

Learn / Azure /

Azure Local documentation

Azure Local is a distributed infrastructure solution enabled by Azure Arc that lets you run virtual machines, containers, and select Azure services.

About Azure Local

- OVERVIEW
 - What is Azure Local?
- WHAT'S NEW
 - What's new in Azure Local?
 - Azure Local disconnected operations (preview)

Deploy

- DEPLOY
 - 1. Download the software
 - 2. Install the OS
 - 3. Register with Arc
 - 4A. Deploy via the portal
 - 4B. Deploy via ARM template

Update and Upgrade

- HOW-TO GUIDE
 - About updates
 - Update via Azure portal
 - About upgrades
 - Upgrade OS
 - Upgrade solution

Deploy workloads

- DEPLOY
 - Deploy Azure Kubernetes Service clusters

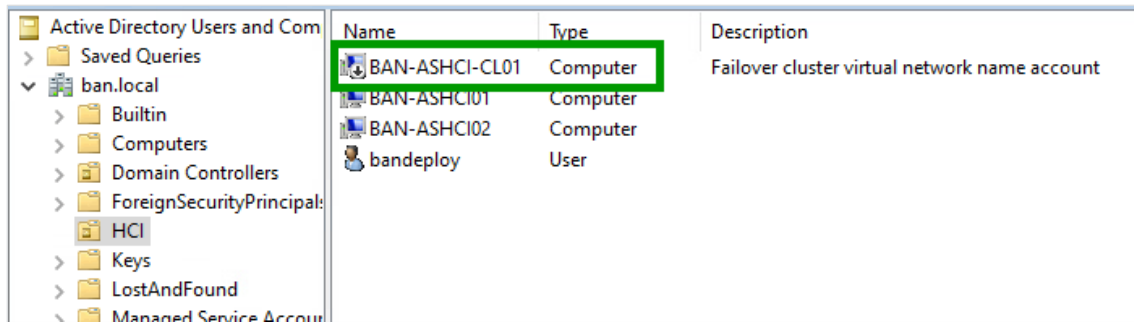
Manage

- HOW-TO GUIDE
 - Manage at-scale

Monitor

- OVERVIEW
 - What is Azure Local monitoring?

Prepare AD & DNS



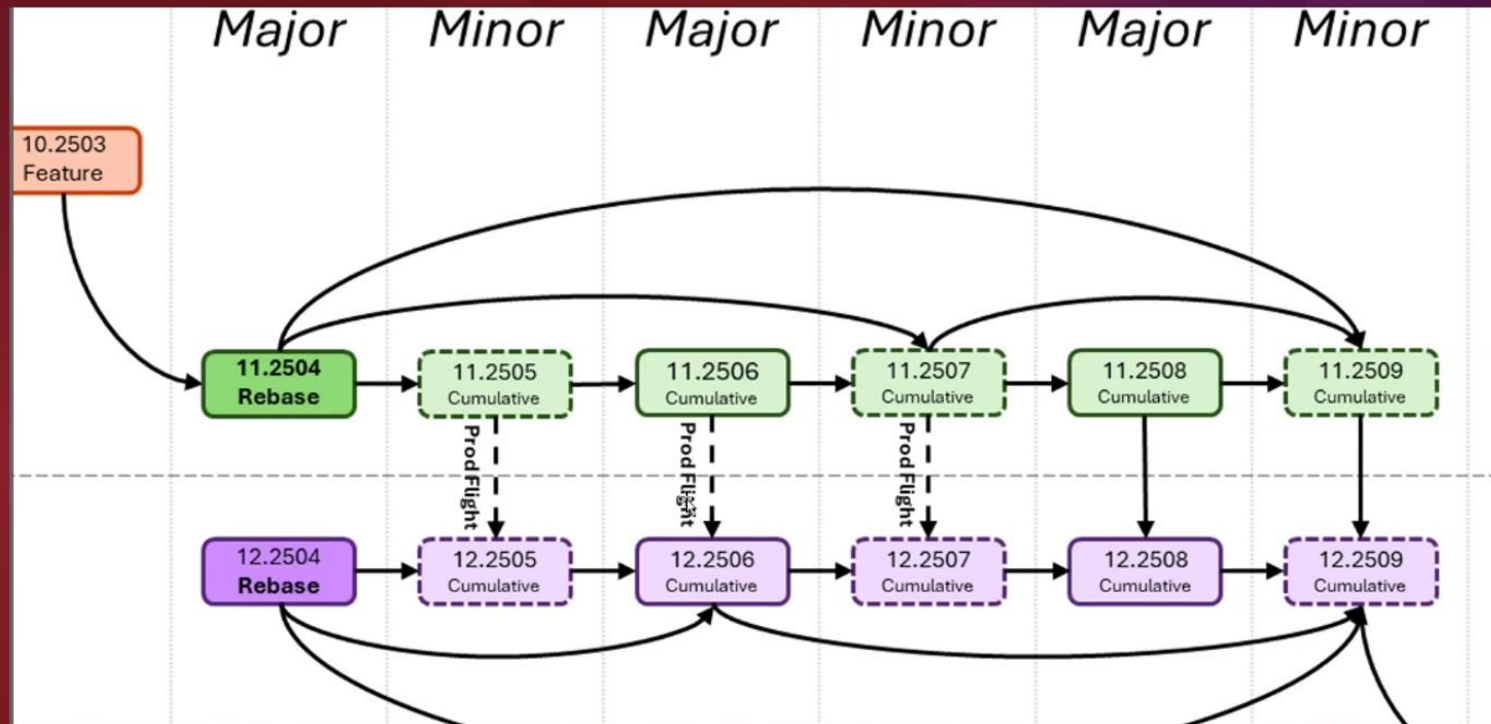
Active Directory requirements for Azure Local include:

- A dedicated Organization Unit (OU)
- Group policy inheritance that is blocked for the applicable Group Policy Object (GPO).
- A user account that has all rights to the OU in the Active Directory.
- Machines must not be joined to Active Directory before deployment.
- Create DNS records upfront.

```
PS C:\work> $password = ConvertTo-SecureString '<password>' -AsPlainText -Force
PS C:\work> $user = "bandeploy"
PS C:\work> $credential = New-Object System.Management.Automation.PSCredential ($user, $password)
PS C:\work> New-HciAdObjectsPreCreation -AzureStackLCMUserCredential $credential -AsHciOUnName "OU=HCI,DC=ban,DC=local"
PS C:\work>
```

Two Operating Systems

Azure Local Releases prior To SBE Update



Download of software

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and a Copilot button. The user's name, brian.asferg.nielsen@at, and the ATEACLOUDTEAM email address are visible in the top right corner. The main content area is titled 'Azure Arc | Azure Local' and features a left-hand navigation pane with options like Overview, All Azure Arc resources, Azure Arc resources, Host environments, Azure Local, VMware vCenters, SCVMM management servers, Data services, Internet of Things (IoT), Application services, Licenses, Management, and DevOps. The 'Get started' tab is selected, displaying a message about Azure Stack HCI being part of Azure Local. The main section, 'Get started with Azure Local', provides an overview of extending cloud power to distributed locations and offers three steps: 1. Order hardware (with an 'Explore catalog' link), 2. Download software (with a 'Download' button), and 3. Deploy Azure Local (with a 'Create instance' button).

portal.azure.com/#view/Microsoft_Azure_ArcCenterUX/ArcCenterMenuBlade/~/hciGetStarted

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

brian.asferg.nielsen@at
ATEACLOUDTEAM

Home > Azure Arc

Azure Arc | Azure Local

Microsoft

Search

Get started Overview All systems

Overview

All Azure Arc resources

Azure Arc resources

Host environments

Azure Local

VMware vCenters

SCVMM management servers

Data services

Internet of Things (IoT)

Application services

Licenses

Management

DevOps

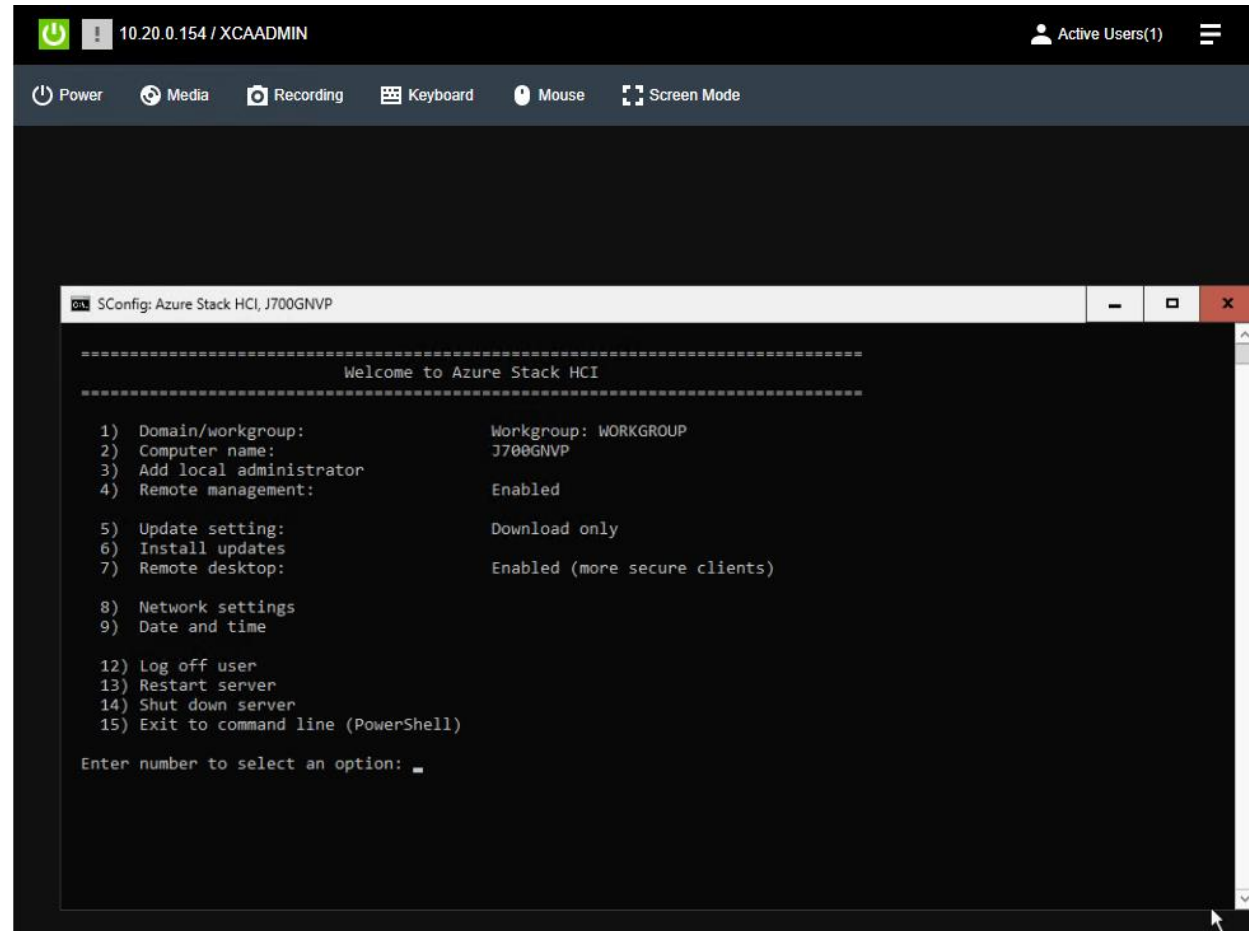
Azure Stack HCI is now part of Azure Local. [Learn more](#)

Get started with Azure Local

Extend the power of the cloud to distributed locations with Azure Local enabled by Azure Arc. Deploy and manage container-based and VM-based applications with local compute and storage on your own hardware. [Learn more](#)

- 1. Order hardware**
Pick a validated hardware from your preferred vendor. Choices range across several platforms.
[Explore catalog](#)
- 2. Download software**
Download and install Azure Local software, if your system didn't come installed with an OS.
[Download](#)
- Deploy Azure Local**
Create an Azure Local instance from the cloud using your machines. Configure clustering, networking, and storage using a guided workflow or a template.
[Create instance](#)

SConfig



SSL inspection

Check with `curl -v https://<URL>`

```
width:600px;
}
</style>
<![endif]-->
<div class="pg_red">
<div class="pg_cont">
<div id="logo_container" class="logo_container">
<table id="logo" width="50%" cellpadding="0" border="0" align="center">
<tbody>
<tr align="center">
<td align="center" class="bh">
</td></tr>
</tbody></table></div>
<table class="m_tbl" cellpadding="0" cellspacing="0" align="center">
<tbody><tr>
<td height="100" valign="top" style="position:relative;">
<div class="uq_cd">D22</div>
<!--locale en_US-->
<table id="en_US" width="100%" border="0" cellpadding="0" cellspacing="0">
<tbody><tr><td class="eu_h">
<i class="a_i"></i>
Sorry, you don't have permission to visit this site.
</td></tr>
<tr><td class="hr"><hr></td></tr>
<tr><td class="eu_co">
<b>You have attempted to access a website which is blocked. Please connect with network administrator for further support.
</b>
</td></tr>
```

❗ Important

Azure Local doesn't support HTTPS inspection. Make sure that HTTPS inspection is disabled along your networking path for Azure Local to prevent any connectivity errors. This includes use of [Entra ID tenant restrictions v1](#) which is not supported for Azure Local management network communication.

Environment Checker

Invoke-AzStackHciHardwareValidation
Invoke-AzStackHciConnectivityValidation

```

C:\WINDOWS\system32\cmd.exe
> ✓ Healthy External Endpoint Container Registries For official Microsoft artifacts su
or bandwidth testing.
> ✓ Healthy External Endpoint Download Resource bridge (appliance) client needs to Val
Diagnostics:
> ✓ Proxy Settings - Environment Proxy Settings Collects proxy configuration from env
> ✓ BAN-ASHCI02 -> Environment
> ✓ Proxy Settings - Proxy Settings Consistency Checks that all nodes are configured
> ✓ BAN-ASHCI02,BAN-ASHCI02 -> Proxy Settings
> ✓ External Endpoint - System Check - SSL Inspection Detection Well known endpoint f
> ✓ BAN-ASHCI02 -> https://login.microsoftonline.com/common/oauth2
> ✓ DNS - Test DNS Test DNS Resolution
> ✓ BAN-ASHCI02 -> 10.20.20.70
> ✓ DNS - Test DNS Test DNS Resolution
> ✓ BAN-ASHCI02 -> 10.20.0.71
> ✓ Proxy Settings - WinHttp Proxy Settings Collects proxy configuration for WinHttp
> ✓ BAN-ASHCI02 -> WinHttp

Summary
The following is summary of the unique issues found, these issues should be reviewed prior to continuing. Critical issu
es require remediation and are blocking issues. Warning issues are sub-optimal non-blocking issues. Informational issues
are for your information.
> ✓ 97 successes

Summary
> ✓ 97 / 97 (100%) resources test successfully.

Log location: C:\Users\Administrator\.AzStackHci\AzStackHciEnvironmentChecker.log
Report location: C:\Users\Administrator\.AzStackHci\AzStackHciEnvironmentReport.json
Use -Passthru parameter to return results as a PSObject.

```

```
Administrator: C:\WINDOWS\system32\cmd.exe
```

```
> ✓ Healthy TpmEndorsementKeyInfo Test TPM Certificate Properties Checking TPM for desired properties
> ✓ Healthy Tpm Test TPM Property AutoProvisioning is Enabled Checking TPM for desired properties

Checking AzStackHci Hardware Compatibility
Testing BAN-ASHCI02
[ooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo]

Checking Test-Volume on BAN-ASHCI02
Formatting Results
Writing Results for BAN-ASHCI02
[o]

oller instance count by group
> ✓ Healthy VideoController Test VideoController Instance Consistency By Group Checking all servers have same VideoContr
oller instance count by group
> ✓ Healthy VideoController Test VideoController Instance Count Consistency Checking all servers have same VideoControll
er instance count
> ✓ Healthy VideoController Test VideoController Property ConfigManagerErrorCode Checking VideoController for property C
onfigManagerErrorCode has desired value
> ✓ Healthy VideoController Test VideoController Property ConfigManagerErrorCode Checking VideoController for property C
onfigManagerErrorCode has desired value
> ✓ Healthy VideoController Test VideoController Property Status Checking VideoController for property Status has desire
d value
> ✓ Healthy VideoController Test VideoController Property Status Checking VideoController for property Status has desire
d value
> ✓ Healthy Virtualization-based Security Test Virtualization-based Security Checking Virtualization-based Security capa
bility
> ✓ Healthy Volume Test Volume Instance Consistency By Group Checking all servers have same Volume instance count by gro
up
> ✓
```

Deploy Azure Local from wizard

portal.azure.com/#view/Microsoft_AzureStackHCI_PortalExtension/CreateCluster.ReactView/_provisioningContext~/7B"initialValues"%3A%7B"subscripti

Microsoft Azure Search resources, services, and docs (G+)

Home > Azure Arc | Azure Local >

Deploy Azure Local ...

Basics 1 Configuration Networking Management Security Advanced Tags Validation Review + create

Before you start, make sure to prepare your Active Directory domain and connect all machines in this system to Azure Arc. [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.

Subscription * ⓘ sub-test-001

Resource group * ⓘ BAN-RG01

Instance details

You'll use the instance name later to manage this Azure Local instance as a whole instead of managing the underlying machines. Create an empty key vault to securely store secrets for this system, such as cryptographic keys, local admin credentials and BitLocker recovery keys. [Learn more](#)

Instance name * ⓘ

Region * ⓘ (Europe) West Europe

Select the machines to use and validate

Selecting more than one machine creates a multi-node instance. [How do I add a machine?](#)

+ Add machines Refresh Retry installation

Review + create < Previous Next: Configuration

Deploy Azure Local from ARM template

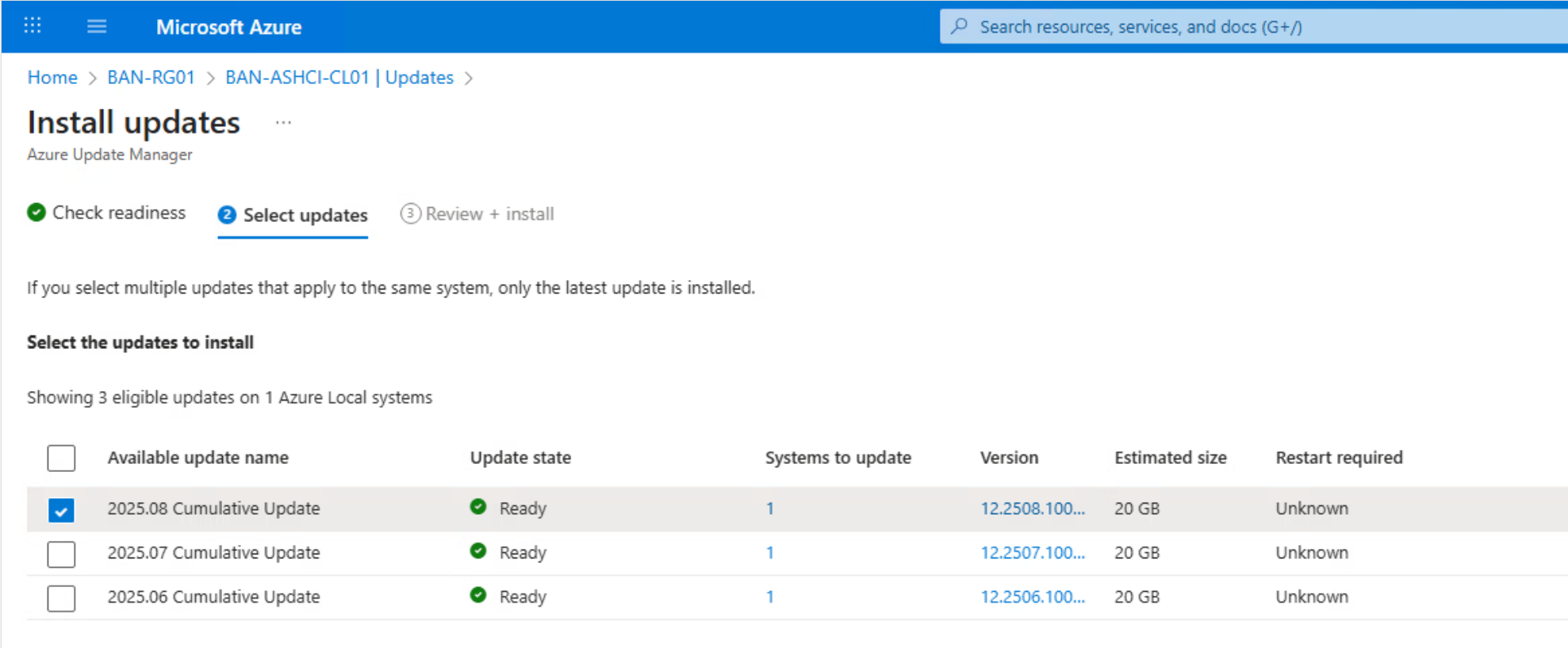
Is 10.71.1x.0 / 10.71.2x.0 conflicting with existing IP scopes?



The screenshot shows a code editor with two tabs open. The active tab is 'Deployment_af_bancluster02_med_arm_template.json'. The code is a JSON file defining deployment parameters for an Azure ARM template. It includes fields for schema, content version, deployment mode, key vault name, soft delete retention days, diagnostic storage account name, logs retention in days, storage account type, cluster name, and location. The code is syntax-highlighted and has line numbers on the left.

```
1 {  
2   "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentParameters.json#",  
3   "contentVersion": "1.0.0.0",  
4   "parameters": {  
5     "deploymentMode": {  
6       "value": "Validate"  
7     },  
8     "keyVaultName": {  
9       "value": "ban-hcikv"  
10    },  
11    "softDeleteRetentionDays": {  
12      "value": 30  
13    },  
14    "diagnosticStorageAccountName": {  
15      "value": "bandiagsal"  
16    },  
17    "logsRetentionInDays": {  
18      "value": 30  
19    },  
20    "storageAccountType": {  
21      "value": "Standard_LRS"  
22    },  
23    "clusterName": {  
24      "value": "bancluster02"  
25    },  
26    "location": {  
27      "value": "[resourceGroup().location]"  
28    },  
29  }
```

Choose which update to install



Microsoft Azure

Search resources, services, and docs (G+/)

Home > BAN-RG01 > BAN-ASHCI-CL01 | Updates >

Install updates

Azure Update Manager

1 Check readiness 2 **Select updates** 3 Review + install



If you select multiple updates that apply to the same system, only the latest update is installed.

Select the updates to install


Showing 3 eligible updates on 1 Azure Local systems

<input type="checkbox"/>	Available update name	Update state	Systems to update	Version	Estimated size	Restart required
<input checked="" type="checkbox"/>	2025.08 Cumulative Update	✓ Ready	1	12.2508.100...	20 GB	Unknown
<input type="checkbox"/>	2025.07 Cumulative Update	✓ Ready	1	12.2507.100...	20 GB	Unknown
<input type="checkbox"/>	2025.06 Cumulative Update	✓ Ready	1	12.2506.100...	20 GB	Unknown

Update process

  Microsoft Azure

Search resources, services, and docs (G+/)

 Copilot

Home > BAN-RG01 > BAN-ASHCI-CL01 | Updates >


Update progress

Azure Local

Update details

Name	Version	Solution extension version	Size	KB article
2025.08 Cumulative Update	12.2508.1001.52	-	20 GB	Release notes

We are currently downloading updates on your system. This process may take some time, you can continue to monitor the progress.

 Refresh

Download updates

In progress

Downloading 100%

Update name	Estimated size	Version	Restart required	Status
2025.08 Cumulative Update	20 GB	12.2508.100...	Unknown	Downloading

Validate that the system is ready

Not started

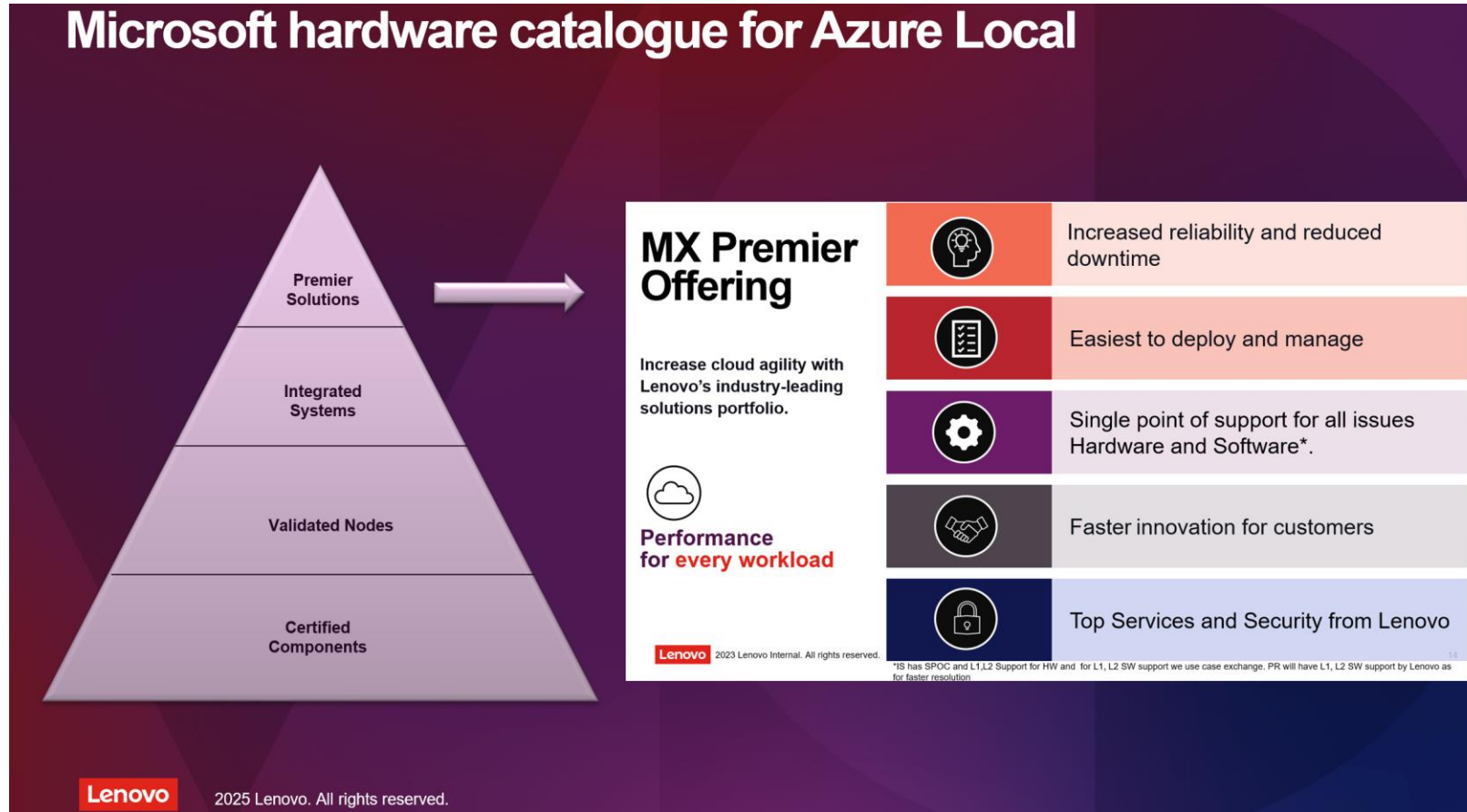
Waiting for updates to download...

Install updates

Not started

Waiting for the system to validate...

Why Azure Local Premier SKU



What is SBE?

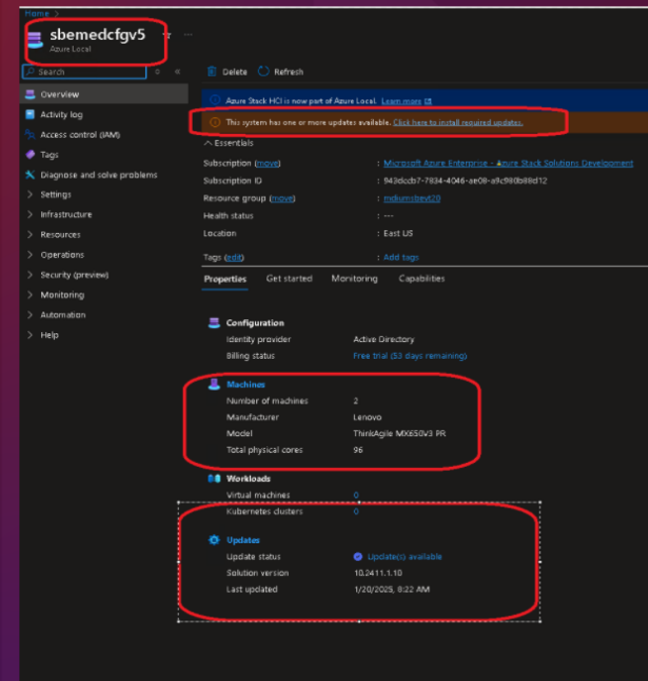
Solution Builder Extension

- The Solution Builder Extension (SBE) allows customers to apply updates from Lenovo to Azure Local instances, version 23H2 and 24H2
- Lenovo Microsoft Solution Team develops the Package frequently either to address a new Best Recipe release or to enhance the solution performance and management
- Currently support two different SBE Families
 - ThinkAgileMXPremier
 - ThinkAgileMXStandard
- Lenovo Logic for Cluster Aware Update (CAU) is embedded into SBE package to update MX HW inband with full hands-on cluster operation (no Human interaction)
- Health Check Module and monitoring services run before SBE begins installing and after to ensure cluster stability and offered in verbose logs context
- Drives Firmware update through S2D health Service, WDAC Supplemental Policy....
- SBE Family ThinkAgileMXPremier is offered through Download Connector (Update becomes available in Azure portal Under Update Azure Local instance update section)

Why Azure Local Premier SKU

SBE Premier update

- Lenovo SBE families
 - ThinkAgileMXPremier
 - ThinkAgileMXStandard
- SBE Premier will be offered over Download Connector, any new update from Lenovo will be automatically discovered by Update Ressource Provider (URP) of Azure Local instance



Why Azure Local Premier SKU

SBE Premier update

The screenshot displays the Azure Update Manager interface. At the top, the 'Updates' tab is active, showing a 'One-time update' button highlighted with a red box. Below this, a table shows the system status: 'Update(s) available' (highlighted with a red box), 'Update readiness' is 'Healthy', 'Current version' is '10.2411.1.10', and 'Last successful update' is '1/20/2025, 8:22 AM'.

The main section is titled 'Install updates' and includes a progress bar with 'Check readiness' (completed), 'Select updates' (active), and 'Review + install' (pending). A note states: 'If you select multiple updates that apply to the same system, only the latest update is installed.'

Under 'Select the updates to install', it says 'Showing 1 eligible updates on 1 Azure Local systems'. A table lists the available update:

Available update name	Update state	Systems to update	Version	Estimated size	Restart required
<input checked="" type="checkbox"/> SBE_Lenovo_ThinkAgileMXPremier_4.1.2501.1022	Ready	1	4.1.2501.1022	2 GB	Unknown

At the bottom, the Lenovo logo is displayed next to the text '2025 Lenovo Internal. All rights reserved.' The page number '31' is in the bottom right corner.

Why Azure Local Premier SKU

SBE Premier update

- Sequences show up in real time
 - Hardware Update

Install details

Try again

Update task	Result	Start time	End time	Description
✓ [SBE] Initialize SBE Update	InProgress	1/28/2025, 2:59 PM		Initialize SBE-only update steps.
✓ Perform initialization for update using SBE	InProgress	1/28/2025, 2:59 PM		Perform hardware vendor steps prior to t...
✓ Prepare SBE for use	InProgress	1/28/2025, 2:59 PM		Prepare to use SBE extension from hardw...
Prepare hardware update via SBE	Success	1/28/2025, 3:00 PM	1/28/2025, 3:02 PM	Prepare for hardware updates from error...
✓ Parallel per-node operation top step	Success	1/28/2025, 3:03 PM	1/28/2025, 3:05 PM	Parallel per-node operation top step
Configure hardware update PowerShell modules	Success	1/28/2025, 3:03 PM	1/28/2025, 3:04 PM	Configure Microsoft.AzureStack.SBE.Powe...
Configure hardware update settings on servers	Success	1/28/2025, 3:04 PM	1/28/2025, 3:05 PM	Configure hardware update settings on aL...
Configure hardware update PowerShell modules	Success	1/28/2025, 3:03 PM	1/28/2025, 3:04 PM	Configure Microsoft.AzureStack.SBE.Powe...
Configure hardware update settings on servers	Success	1/28/2025, 3:04 PM	1/28/2025, 3:05 PM	Configure hardware update settings on aL...
Update hardware update security policies via SBE	InProgress	1/28/2025, 3:05 PM		If needed, update the hardware update sec...
Initialize for update on cluster via SBE	Unknown status			Use SBE from hardware vendor to initializ...
✓ Parallel per-node operation top step	Unknown status			Parallel per-node operation top step
Initialize for update on server via SBE	Unknown status			Use SBE from hardware vendor to initializ...
Initialize for update on server via SBE	Unknown status			Use SBE from hardware vendor to initializ...
SBE Package Update	Unknown status			Perform Solution Builder Extension update.
[SBE] Complete SBE Update	Unknown status			Complete SBE-only update steps

If not Premier SKU - DIY

SBE Standard update (For MX IS and CN)

- When Lenovo releases a new SBE ThinkAgileStandard package, it becomes available in Azure portal with Status = “Additional Content Required”

Home > clusmallvt27 | Updates >

Install updates

Azure Update Manager

Check readiness **Select updates** Review + install

At least 1 update should be selected.

Some updates require the sideloading of solution extensions before they are ready to be installed. Please select "Additional content required" for details. Once sideloaded, it may take up to 15 minutes to reflect the readiness state.

If you select multiple updates that apply to the same system, only the latest update is installed.

Select the updates to install

Showing 1 eligible updates on 1 Azure Local systems

<input type="checkbox"/>	Available update name	Update state	Systems to update	Version	Estimated size	Restart required
<input type="checkbox"/>	SBE_Lenovo_MX650V3-MX630V3_4.1.2408.1002	▲ Additional content required	1	4.1.2408.1002	1 GB	Unknown

If not Premier SKU - DIY

SBE Standard update (For MX IS and CN)

- Customer must manually import package to cluster after downloading from ThinkAgile MX Updates Repository (for example, <https://thinkagile.lenovo.com/mx/MXBR2408/>)

For Lenovo ThinkAgile MX solutions running Azure Local 23H2 and later


The Solution Builder Extension (SBE) is now available for Lenovo ThinkAgile MX630 V3 and MX650 V3 solutions. For more information about SBE, check the following: [Microsoft SBE Article](#)

The standard SBE update package is used to fully update an Azure Local instance, including system firmware, device drivers, and the operating system, and provides instructions for its use. If you are running Azure Local 23H2 or later and want to take advantage of the benefits of SBE, the SBE update package can be downloaded below.

August 2024 ThinkAgile MX SBE update package release (Lenovo_SBE_MXBR2408) for:

- ThinkAgile MX630 V3 Certified Node or Integrated System Best Recipe (7D6U)
- ThinkAgile MX650 V3 Certified Node or Integrated System Best Recipe (7D6S)

The zip archive in the table below is used to automatically update ThinkAgile MX solutions listed above using the Solution Builder Extension.

File Name	Date Modified	Documentation	Description
 Parent Directory			
Lenovo_SBE_MXBR2408.zip			
SHA256 Hash: 5069a3ecbedeccc2d2bd1d5e229f10f1f9af12cfd13935918e0473d5a19d20a MD5 Hash: b6c82a0adc4514aca4b5f7208b65d0ac	12/13/2024	Lenovo SBE Guide	For solutions running Azure Local 23H2 or later, this archive contains the Solution Builder Extension (SBE) update package for ThinkAgile MX Best Recipe MXBR2408. This package includes all system firmware and device driver updates, so it is not necessary to download any of the manual update packages in the table below.

August 2024 ThinkAgile MX manual update release (MXBR2408) for:

- ThinkAgile MX455 V3 Premier Solution (7DGP)
- ThinkAgile MX630 V3 Certified Node or Integrated System Best Recipe (7D6U)
- ThinkAgile MX650 V3 Certified Node or Integrated System Best Recipe (7D6S)

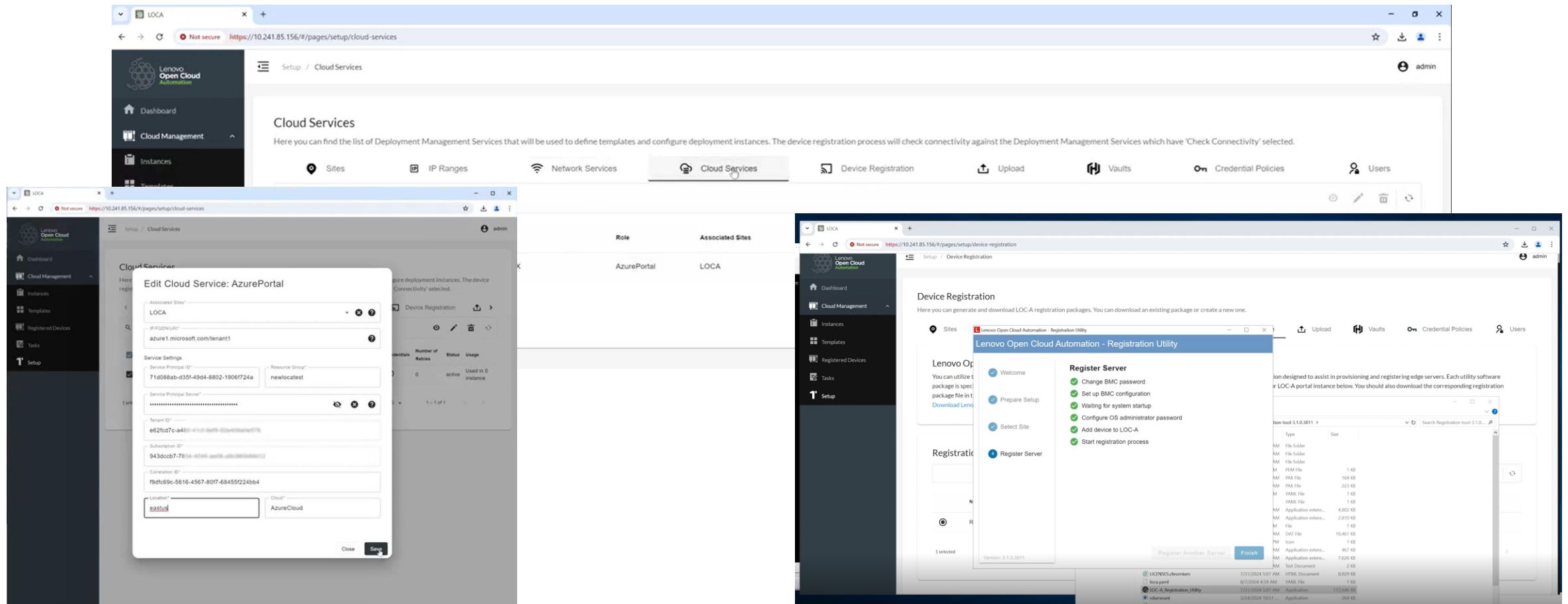
The zip archives in the table below are used to manually update ThinkAgile MX solutions listed above.

Lenovo ThinkAgile MX Premier Solution – with LOC-A

The collage illustrates the initial setup steps for the Lenovo ThinkAgile MX Premier Solution using LOC-A. It includes the LOCA login page, a Site Planning Excel spreadsheet for site configuration, and the LOCA web interface for uploading deployment files.

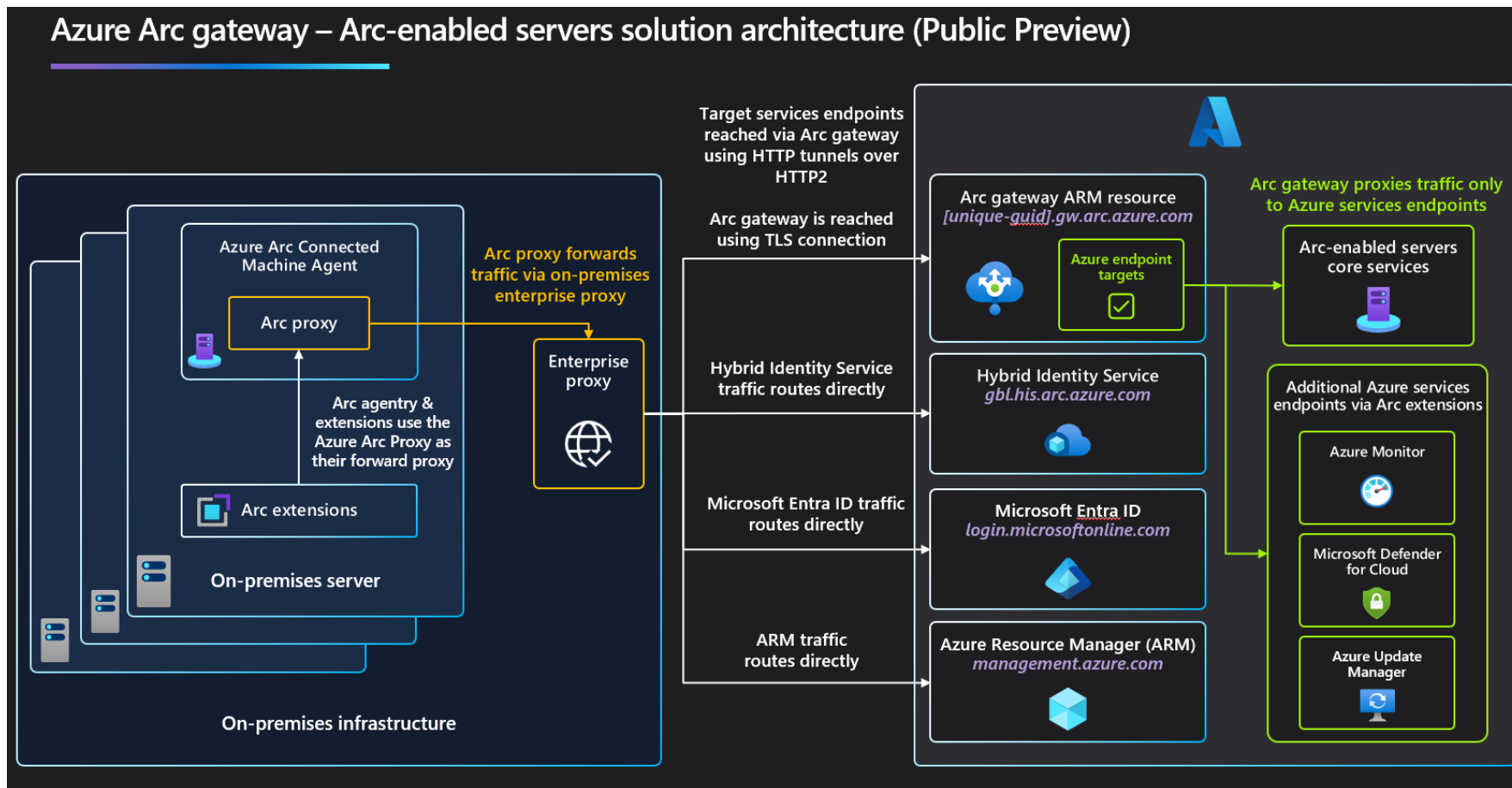
LOCA ISO image download
Install LOCA VM in OOB network

Lenovo ThinkAgile MX Premier Solution – with LOC-A



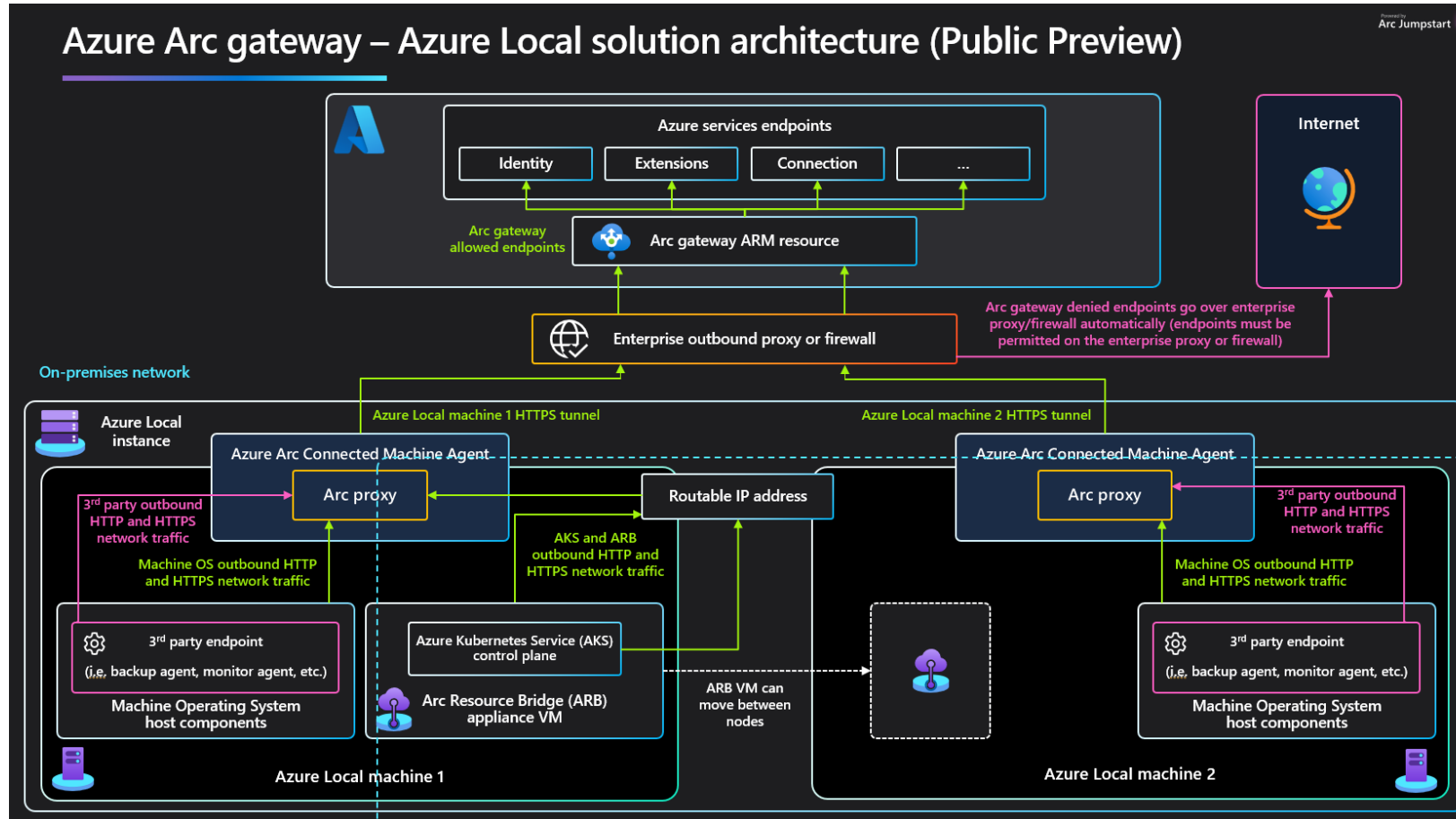
Proxy GW for services endpoints

Reduce numbers of destination endpoints – from 115 URL's to less than 15



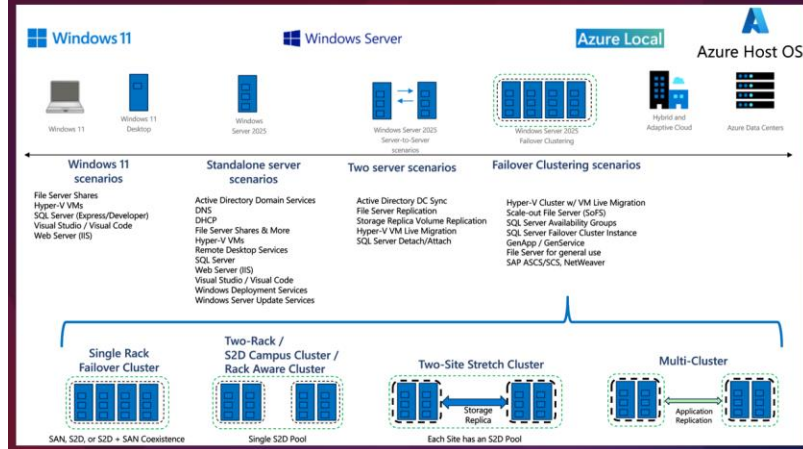
Proxy GW for services endpoints

Reduce numbers of destination endpoints – from 115 URL's to less than 15

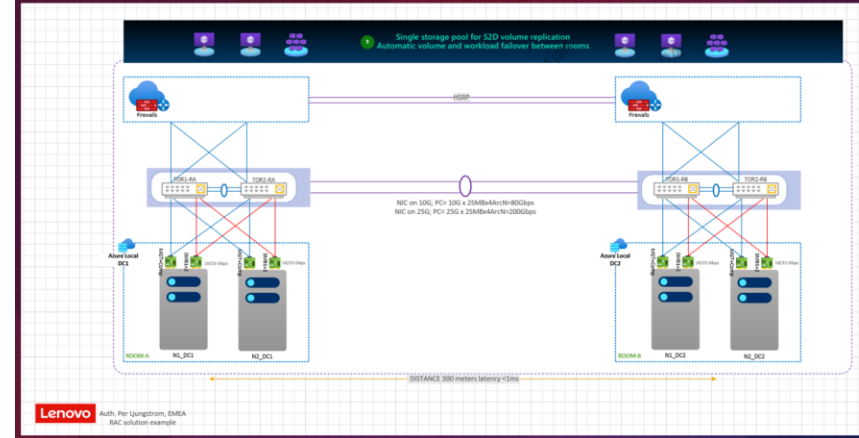


Azure Local RAC (metrocluster)

NDA slide (confidential)



RAC – how is storage calculated



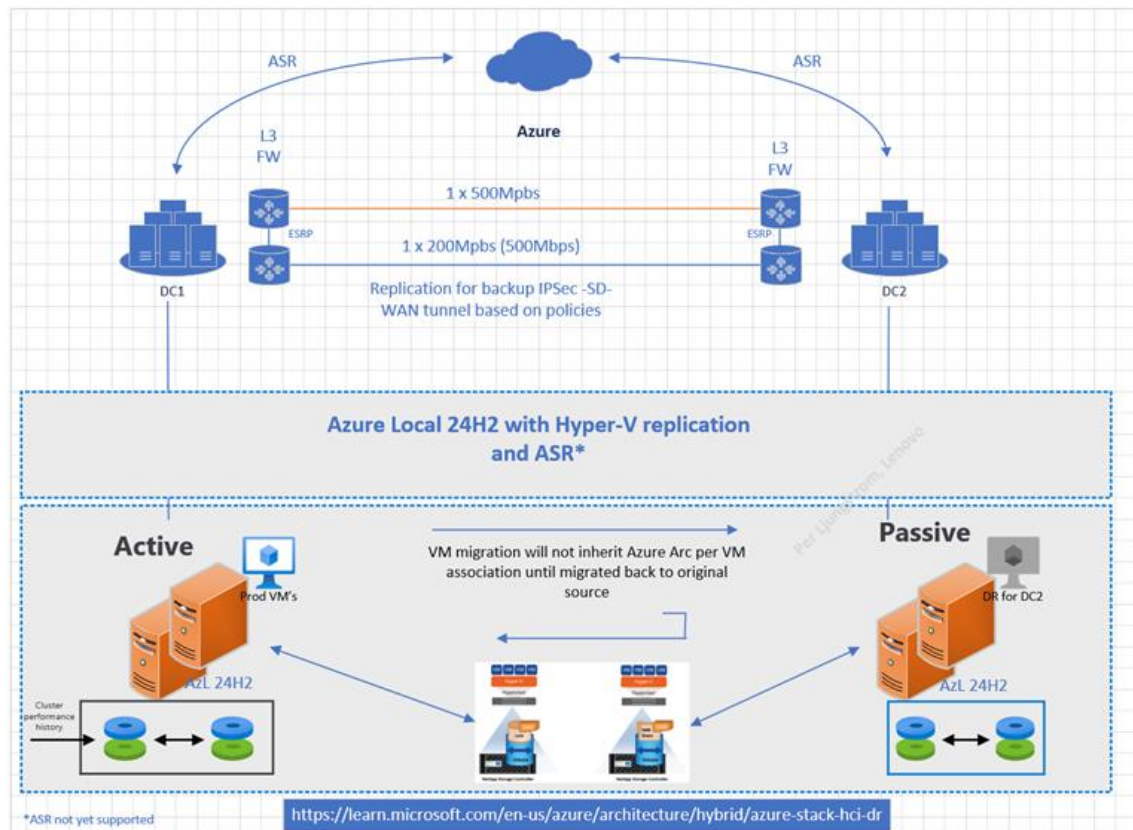
Rack Aware Cluster Supported configurations at GA

Machine # in two zones	# workload volumes	Volume Resiliency	Storage Efficiency	Sustain faults
1+1 (2-node cluster)	2	Two-way mirror	50%	Single fault (drive, node or rack)
2+2 (4-node cluster)	4			Three faults (drive or node)
3+3 (6-node cluster)	6			
4+4 (8-node cluster)	8	Rack Level Nested Mirror (Four-way mirror)	25%	When a rack fails, the remaining rack can sustain one fault of drive or node

- Rack aware cluster supports **only two local availability zones**, with a maximum of four machines in each zone. The two zones must contain an equal number of machines. A node can only be in one zone.
- Rack Aware Cluster **only supports green field deployment**, no conversion from standard cluster.

- Only layer 2
- Max 1km or 1ms RTT
- In Private Preview 2508
- Estimated GA Q1/26

Azure Local DC<->DC Hyper-V replicce



- DC1 is active , DC2 is passive
- Hyper-V replication or ASR
- ASR – per VM Arc instance will be recognized in Azure – Azure portal will works as normal
- Hyper-V replication – VM's instance will include it's Arc relation from source, hence new Azure Local instance differ, then Arc VM will lose it's Azure Portal relationship.
- Either a re-hydrate process via script must take place in case VM will stay(DC2), or in case it's moved back to source, a VM restart will secure-in old Arc relationship