



Windows Server Management: The Next Generation

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also known as
Project Honolulu

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Agenda

- What is Honolulu and why is Microsoft making it
- Current Honolulu capabilities
- Deployment options
- Honolulu architecture
- Different management solutions
- Summary

About Us

- Aleksandar Nikolić
 - PowerShell and Azure trainer
 - Cloud and Datacenter Management MVP
 - Microsoft Azure MVP
 - Co-founder of PowerShellMagazine.com
- Jan Egil Ring
 - Lead Architect, Infrastructure at Crayon
 - Cloud and Datacenter Management MVP
 - Member of the editorial board of PowerShellMagazine.com

Why is Microsoft developing Project Honolulu?

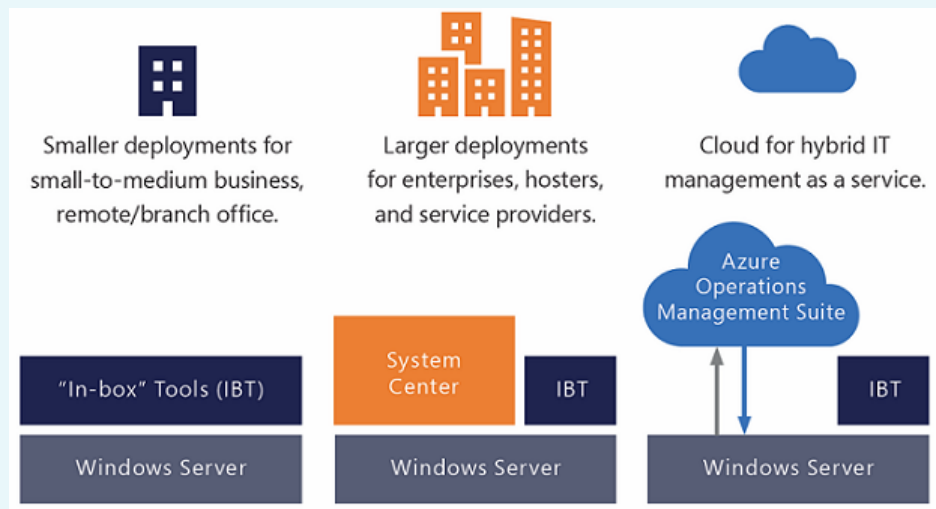
- Simple answer: “You’ve asked for it.” 😊
- Server Management Tools, an **Azure-hosted** service
- The primary customer feedback on the UserVoice forum:
 - Enable an on-premises customer-deployed solution with **no Azure** requirement
- Currently in Technical Preview

What is Honolulu?

- Locally deployed, browser-based, management tool set
- Enables on-premises administration of Windows Servers (and Windows clients) with no Azure or cloud dependency.
- Particularly useful for management on private networks that are not connected to the Internet.

What is Honolulu?

- Modern evolution of “in-box” management tools, like Server Manager and MMC.
- It is complementary to System Center and Operations Management Suite
- Not intended to replace these products and services.



How does Honolulu work?

- The Honolulu app runs in a web browser (Microsoft Edge or Google Chrome)
- Manages Windows Server 2016, Windows Server 2012 R2, Windows Server 2012, and Windows 10 nodes through the Honolulu gateway
- The gateway runs on Windows Server 2016 or Windows 10.
- The gateway manages servers via PowerShell remoting and WMI over WinRM.
- Download from this link: <https://aka.ms/HonoluluDownload>

What does Honolulu do?

- Consolidates many distinct tools into one interface
- Allows you to manage servers, failover clusters, hyper-converged clusters, and virtual machines from the same console
- Firewall rules, Windows Update, Certificate Manager, PowerShell console, RDP...
- Simplified GUI to configure and manage hyper-converged clusters

Current capabilities

Honolulu does not yet completely replace the Server Manager and Microsoft Management Console (MMC).

- Displaying resources and resource utilization
- Certificate Management
- Event Viewer
- File Explorer
- Firewall Management
- Configuring Local Users and Groups
- Network Settings
- Viewing/Ending Processes and Creating Process Dumps
- Registry Editing
- Managing Windows Services
- Enabling/Disabling Roles & Features
- Managing Hyper-V VMs & Virtual Switches
- Managing Storage
- Managing Windows Update
- PowerShell console
- RDP

What is missing?

Honolulu does not currently replicate the following RSAT tools:

- AD Directory Administrative Center
- AD Domains and Trusts
- AD Module for Windows PowerShell
- AD Site and Services
- AD Users and Computers
- ADSI Edit
- Cluster Aware Updating
- Component Services
- DFS Management
- DHCP
- DNS
- File Server Resource Manager
- Group Policy Management
- iSCSI initiator
- Network Load Balancing Manager
- Performance Monitor
- Print Management
- Remote Access management
- Routing and Remote Access
- Shielding Data File Wizard
- Task Scheduler
- Volume Activation Tools
- Windows Server Update Services

<http://aka.ms/honolulufeedback>



Where can you install Honolulu?

Version	Installation Mode
Windows 10	Desktop mode
Windows Server, version 1709	Gateway mode
Windows Server 2016	Gateway mode

Desktop Mode: Connect to the Honolulu gateway from the same computer on which it's installed (i.e. `http://localhost:[port]`) (port **6516**, by default)

Gateway Mode: Connect to the Honolulu gateway from a client browser on a different machine (i.e. `https://servername`) (port **443**, by default)

What can you manage with Honolulu?

Version	Managed node via Server Manager	Managed cluster via Failover Cluster Mgr	Managed HCI cluster via HC Cluster Mgr
Windows Server, version 1709	Yes	Yes	Yes, on Insider builds
Windows Server 2016	Yes	Yes	Future
Windows Server 2012 R2 (with WMF 5.1)	Yes	Yes	N/A
Windows Server 2012 (with WMF 5.1)	Yes	Yes	N/A

DEMO

Project Honolulu (gateway and desktop mode)

Deployment options

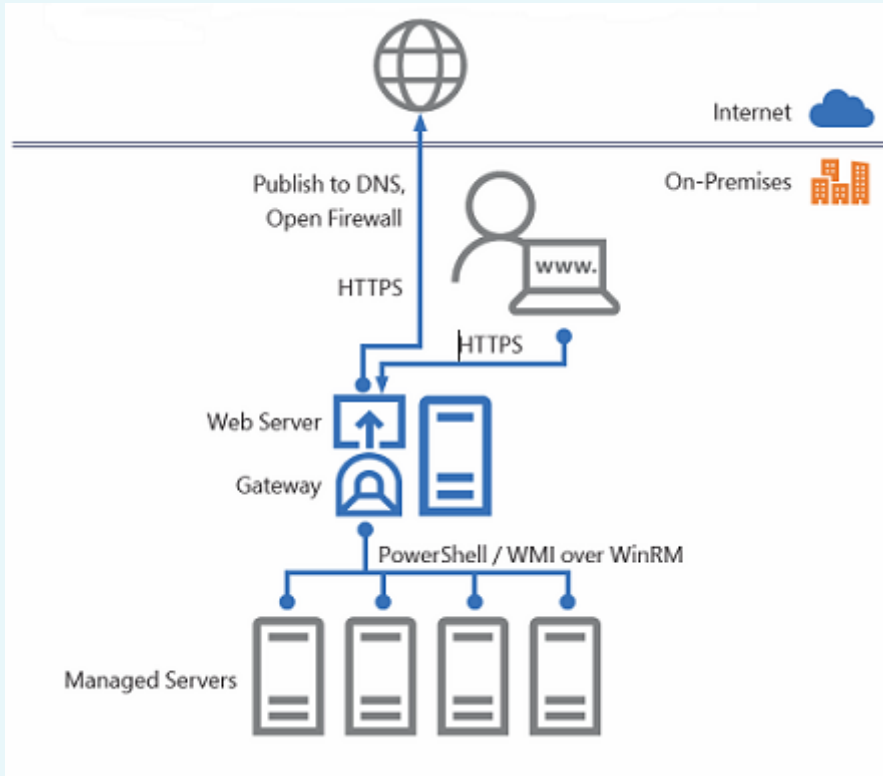


Install on a local Windows 10 client that has connectivity to the managed servers. Great for quick start, testing, ad-hoc or small scale scenarios.

Install on a designated gateway server and access from any client browser with connectivity to the gateway server.

Install directly on a managed server for the purpose of managing itself or a cluster in which it's a member node.

Architecture



- How to provide secure remote access to on-premises Honolulu app?
- Publishing the web server to DNS and setting up the corporate firewall can allow you to access Honolulu from the public internet
- Azure Application Proxy

DEMO

Honolulu via Azure App Proxy

NIC

Managing HCI with Honolulu

- Hyper-Converged Infrastructure (HCI) consolidates compute, storage and networking.
- Microsoft's offering is based on Hyper-V and Storage Spaces Direct (S2D).
- Honolulu provides the following capabilities for HCI:
 - Cluster dashboard visualizing health alerts, storage performance metrics, compute/storage resource consumption and inventory
 - Summary, inventory view and commands for administering servers, VMs, disks, virtual switches and volumes

DEMO

How to manage a hyper-converged cluster with Honolulu

NIC

DEMO

Honolulu: Behind the scenes

NIC

Summary

- Honolulu is free of charge.
- Honolulu doesn't require Azure.
- No internet connection is required.
- It can be deployed locally on Windows 10 or Windows Server 2016.
- Target nodes: Windows Server 2016, 2012 R2, 2012, and Windows 10.
- “No server-side configuration is required!”
- Currently tested with Edge and Chrome.
- When will Honolulu be generally available? Sometime in **2018**.

Resources

- <https://aka.ms/HonoluluDownload>
- <http://aka.ms/honoluludocs>
- <http://aka.ms/honolulufeedback>

- All slides and demos from the conference are available at **github.com/nordicinfrastructureconference/2018** (bit.ly/2y7JhA3)