

New & Cool Tools! Management with Project Honolulu



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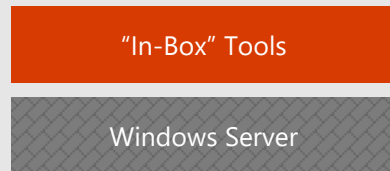


Server Management

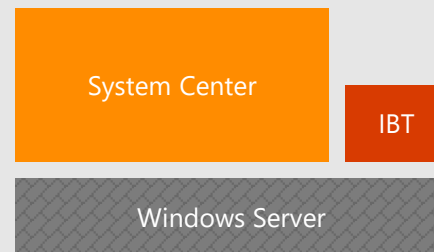
Core graphical management experiences for Windows Server



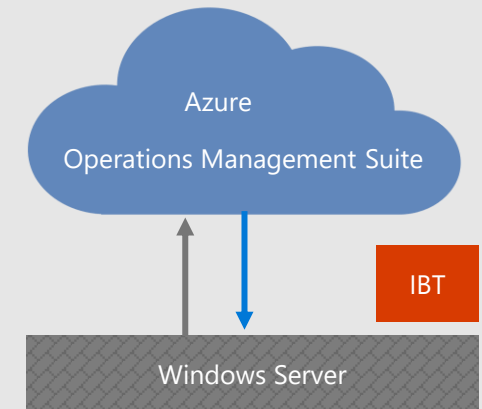
Smaller deployments for small-to-medium business, remote/branch office.



Larger deployments for enterprises, hosters, and service providers.



Cloud for hybrid IT management as a service.



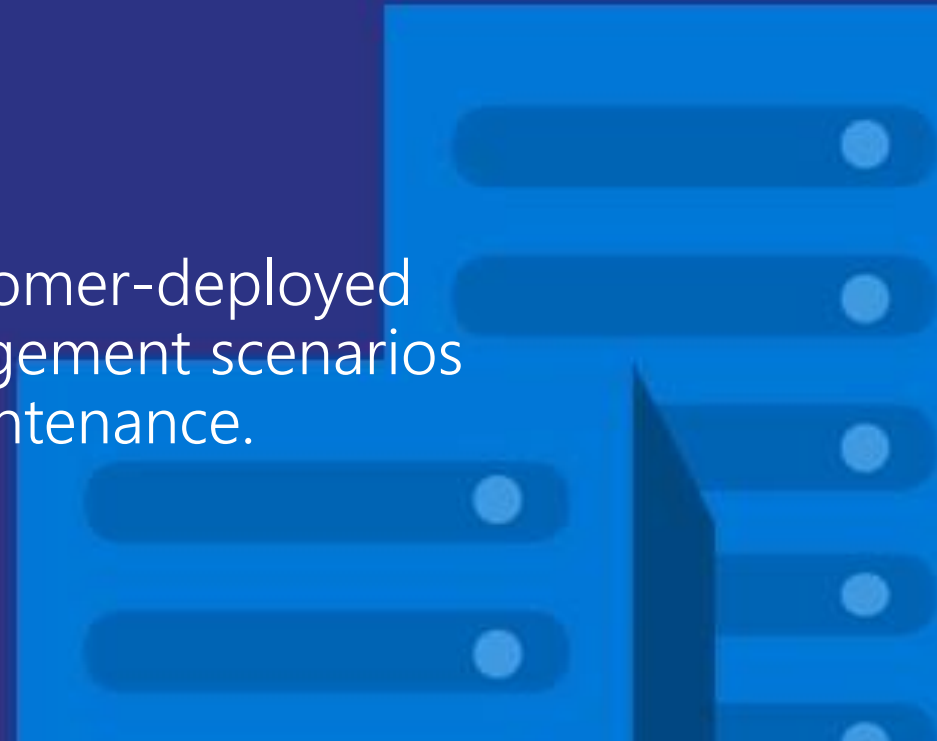
Server management experiences: evolution of "in-box" tools, what's new and what's next. Complementary to System Center and OMS; not replacements, and not competitors.

Project Honolulu

Public Preview

Released 9/14/2017

Project "Honolulu" is a browser-based customer-deployed solution for remote Windows Server management scenarios for troubleshooting, configuration and maintenance.





- Windows Firewall with Advanced Security
- Inbound Rules
- Outbound Rules
- Connection Security Rules
- Monitoring

Name	Group
DFS Management (WMI-In)	DFS Management
...	...

Computer\HKEY_CURRENT_USER\Software

- Adv...
- Xa...
- AppC...
- Autop...
- Banne...
- BitBud...
- Cabin...
- CIDOp...
- CIDSa...



Volume	Layout
(C:)	Simple
(Disk 0 partition 1)	Simple
(Disk 0 partition 2)	Simple
(Disk 0 partition 5)	Simple
Data (D:)	Simple
Tmp (E:)	Simple

Disk 0
Basic
233.56 GB
Online
450 MB
Healthy (R)

Disk 1
Basic
238.47 GB
Online
Data (D:)
238.47 GB
Healthy (Primary Partition)

Update status

Server Manager Dashboard

- Dashboard
- All Servers
- File and Storage S...
- Hyper-V

Add Roles and Features Wizard

Select features

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features**
- Confirmation
- Results

Select one or more features to install on the selected server.

Features

- ☒ Remote Server Administration Tools (2 of 42 installed)
 - ☐ Feature Administration Tools
 - ☐ SMTP Server Tools
 - ☐ BitLocker Drive Encryption Administration Tools
 - ☐ BitLocker Drive Encryption Tools
 - ☐ BitLocker Recovery Password Viewer
 - ☐ BITS Server Extensions Tools
 - ☐ DataCenterBridging LLDP Tools
 - ☐ Failover Clustering Tools
 - ☐ Failover Cluster Management Tools
 - ☐ Failover Cluster Module for Windows PowerShell
 - ☐ Failover Cluster Automation Server
 - ☐ Failover Cluster Command Interface
 - ☐ IP Address Management (IPAM) Client
 - ☐ Network Load Balancing Tools
 - ☐ Shielded VM Tools
 - ☐ SNMP Tools
 - ☐ Storage Replica Module for Windows PowerShell
 - ☐ WINS Server Tools

Description

Remote Server Administration Tools includes snap-ins and command-line tools for remotely managing roles and features.

DESTINATION SERVER
smehost.redmond.corp.microsoft.com

Hide

< Previous Next > Install Cancel

BPA results

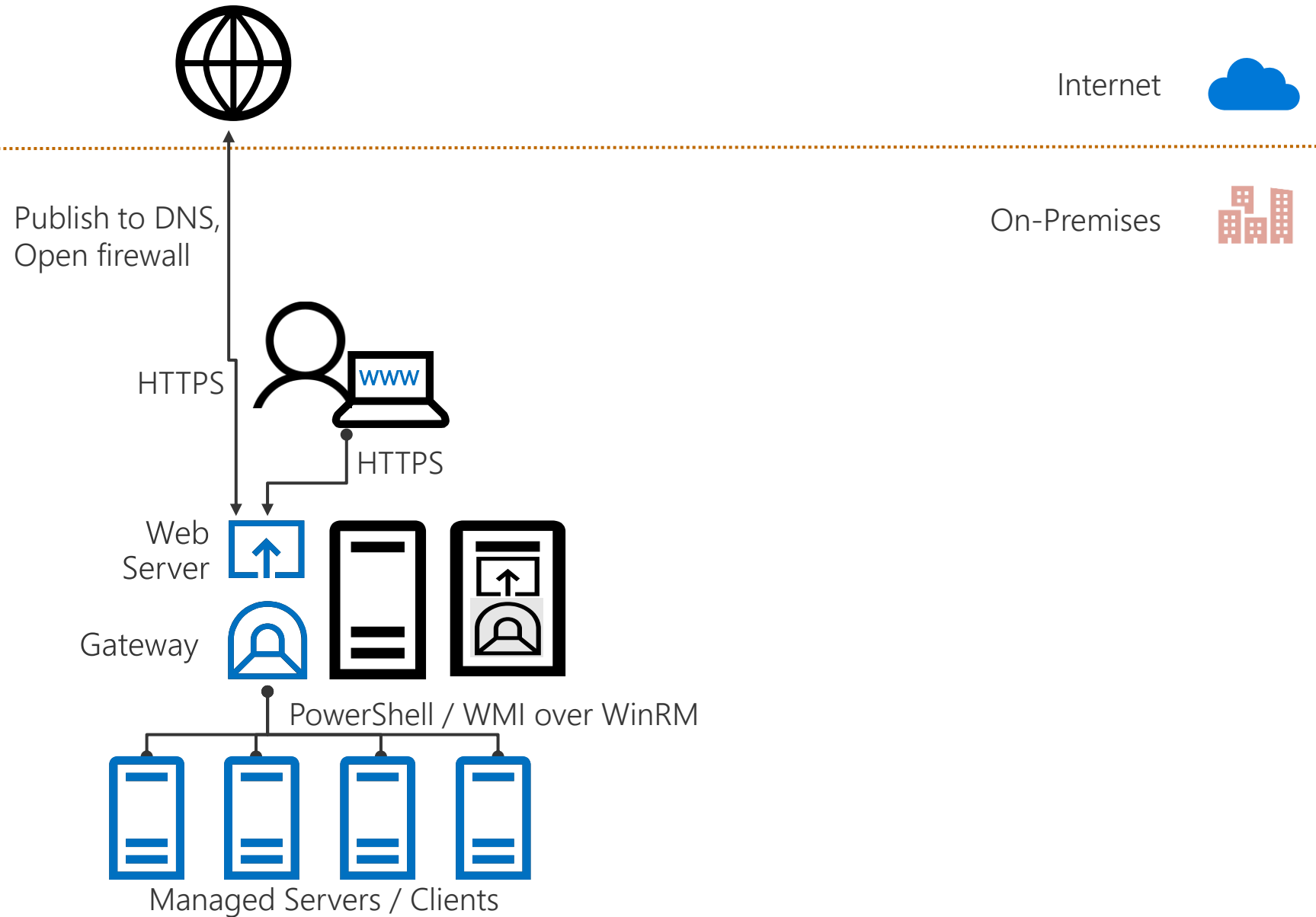
BPA results

BPA results

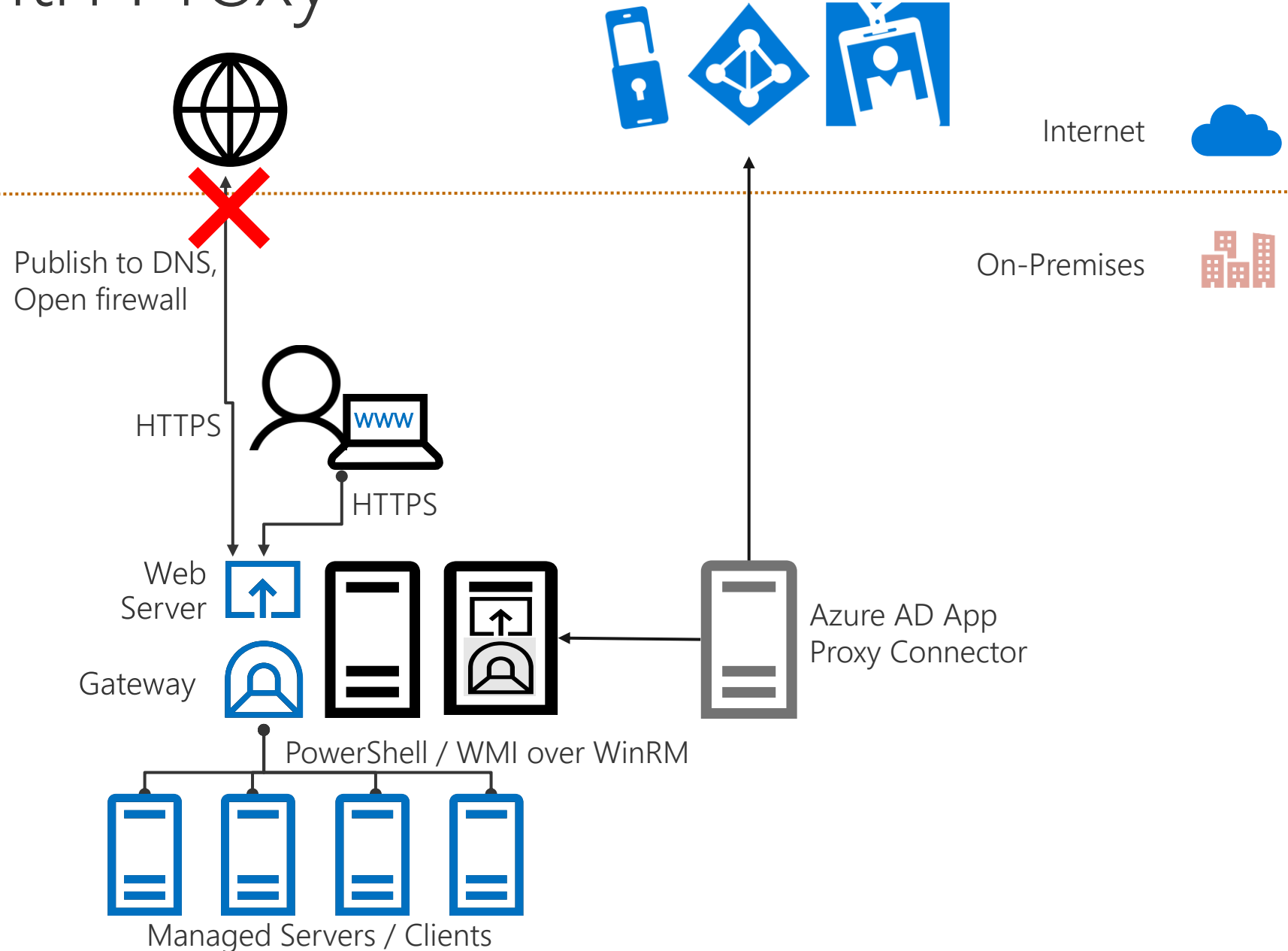
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tered connections (where charges may

Architecture

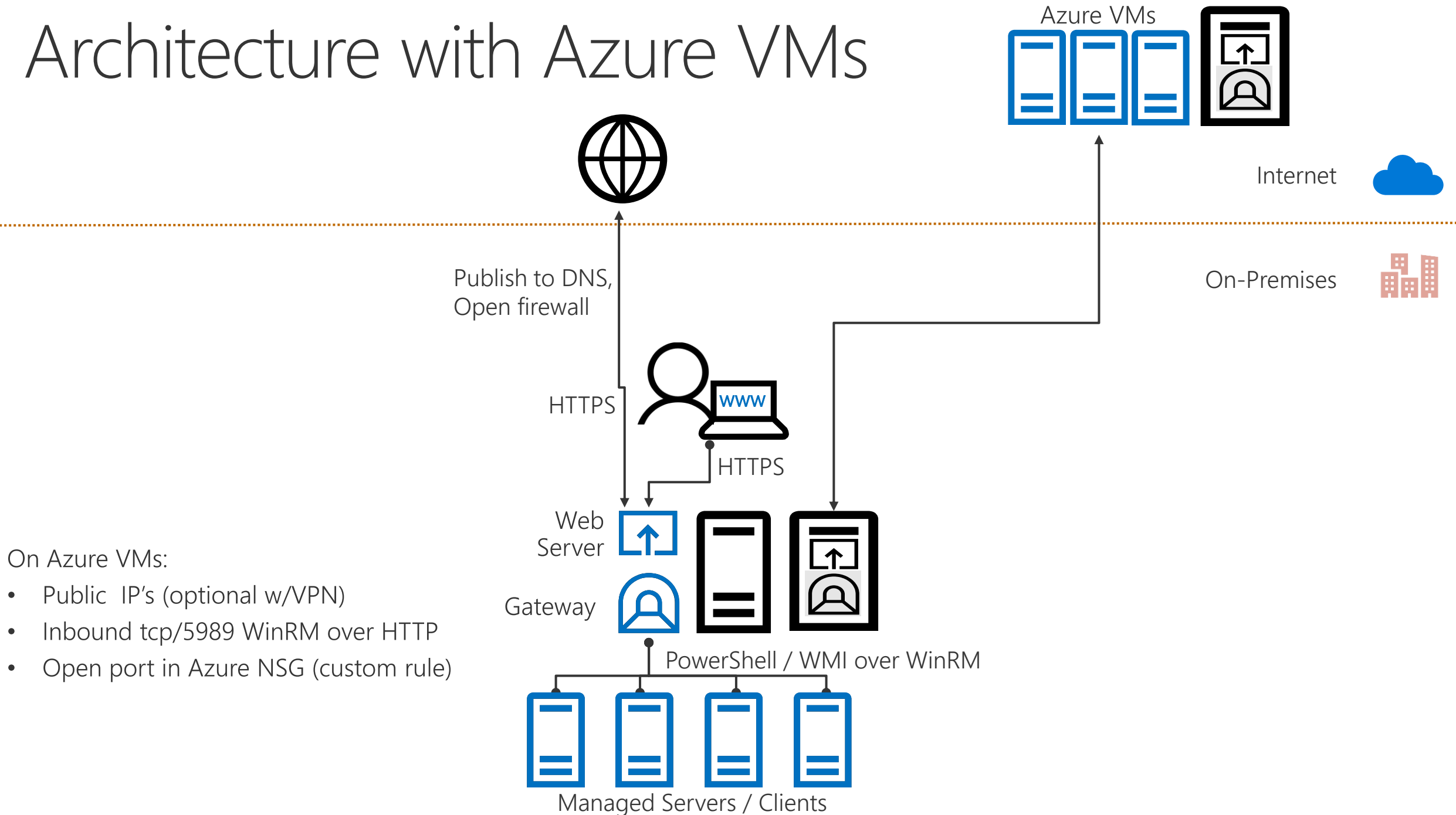


Architecture with Proxy

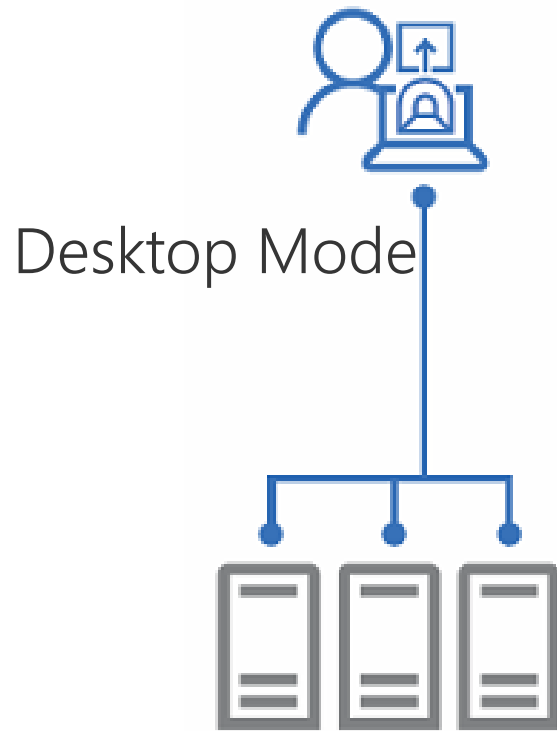


<https://gotoguy.blog>

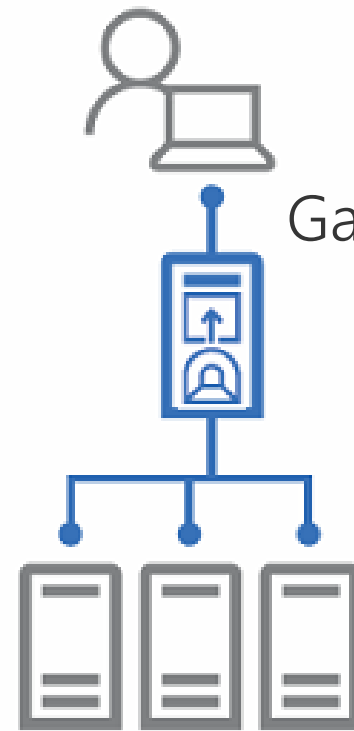
Architecture with Azure VMs



Deployment Models

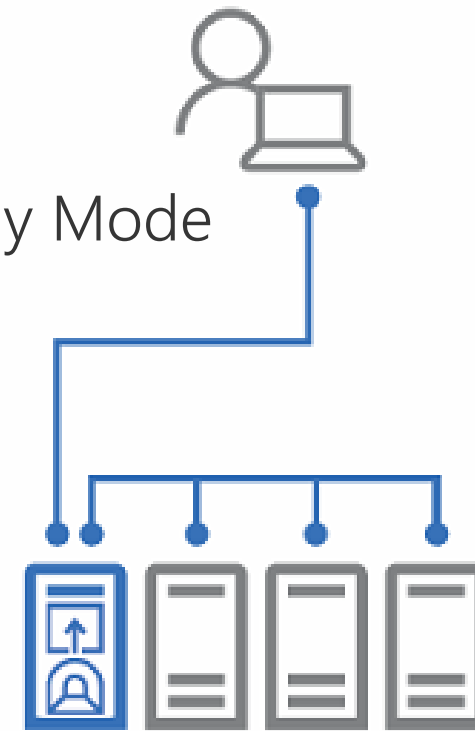


Install on a local Windows 10 client that has connectivity to the managed servers. Great for quick start, testing, ad-hoc or small scale scenarios.



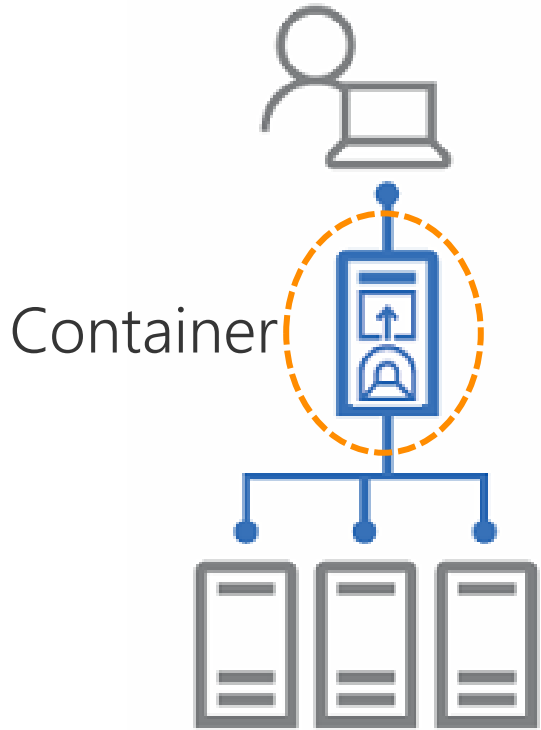
Install on a designated gateway server and access from any client browser with connectivity to the gateway server.

Gateway Mode



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

Deployment Models

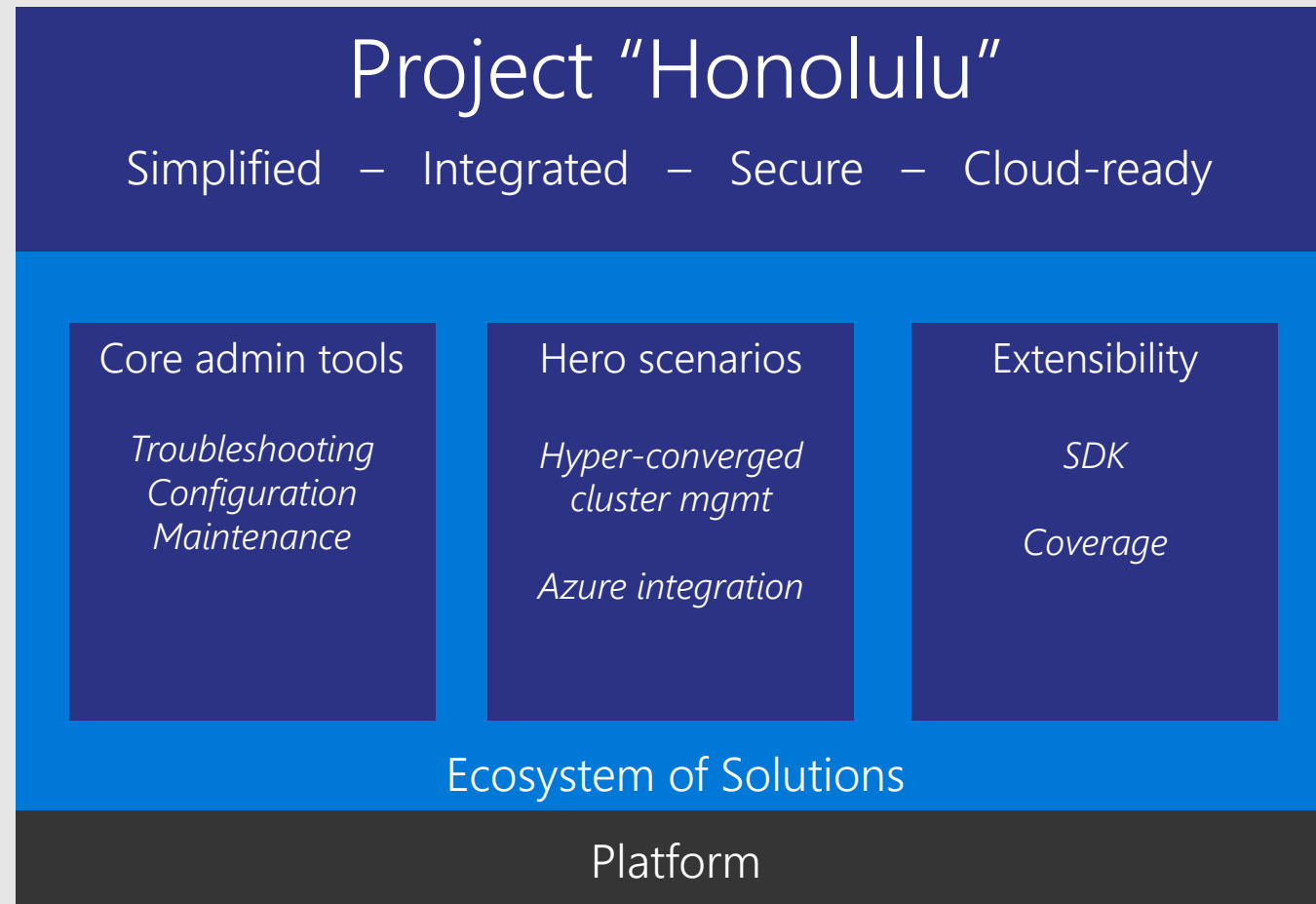


Run as Windows Container –On-Premises or in Azure
Self-contained, portable, flexible, scalable

**Not officially supported... yet.*

<https://github.com/aavdberg>

Modernizing the graphical management experience for Windows Server



Honolulu Design Choices



Visual Design

Aligning with Microsoft common design language and patterns



Leveraging open source technologies

Angular, TypeScript, jQuery, SignalR, Chart.js, PrimeNG, RxJS, etc.



Building extensibility into the architecture

All core tools are built as separate modules

Deep linking and contextual reusability

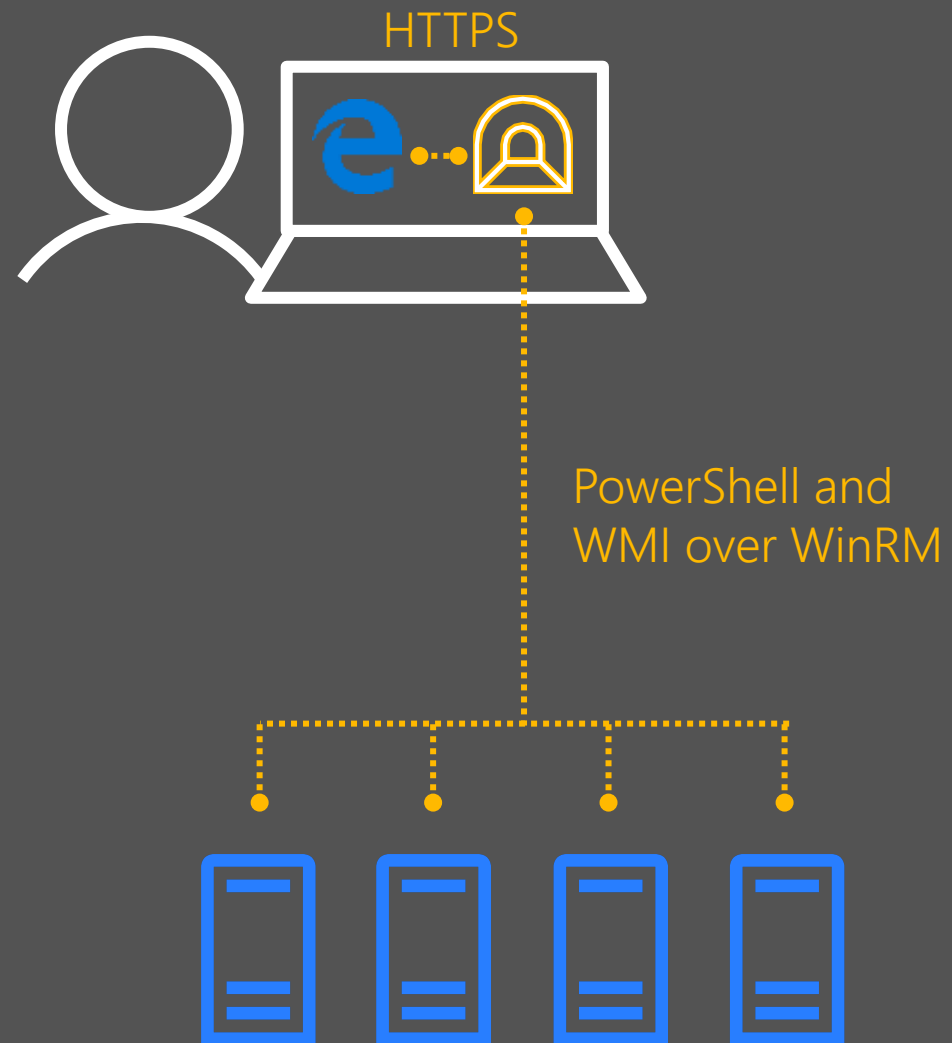


Designing for integration opportunities

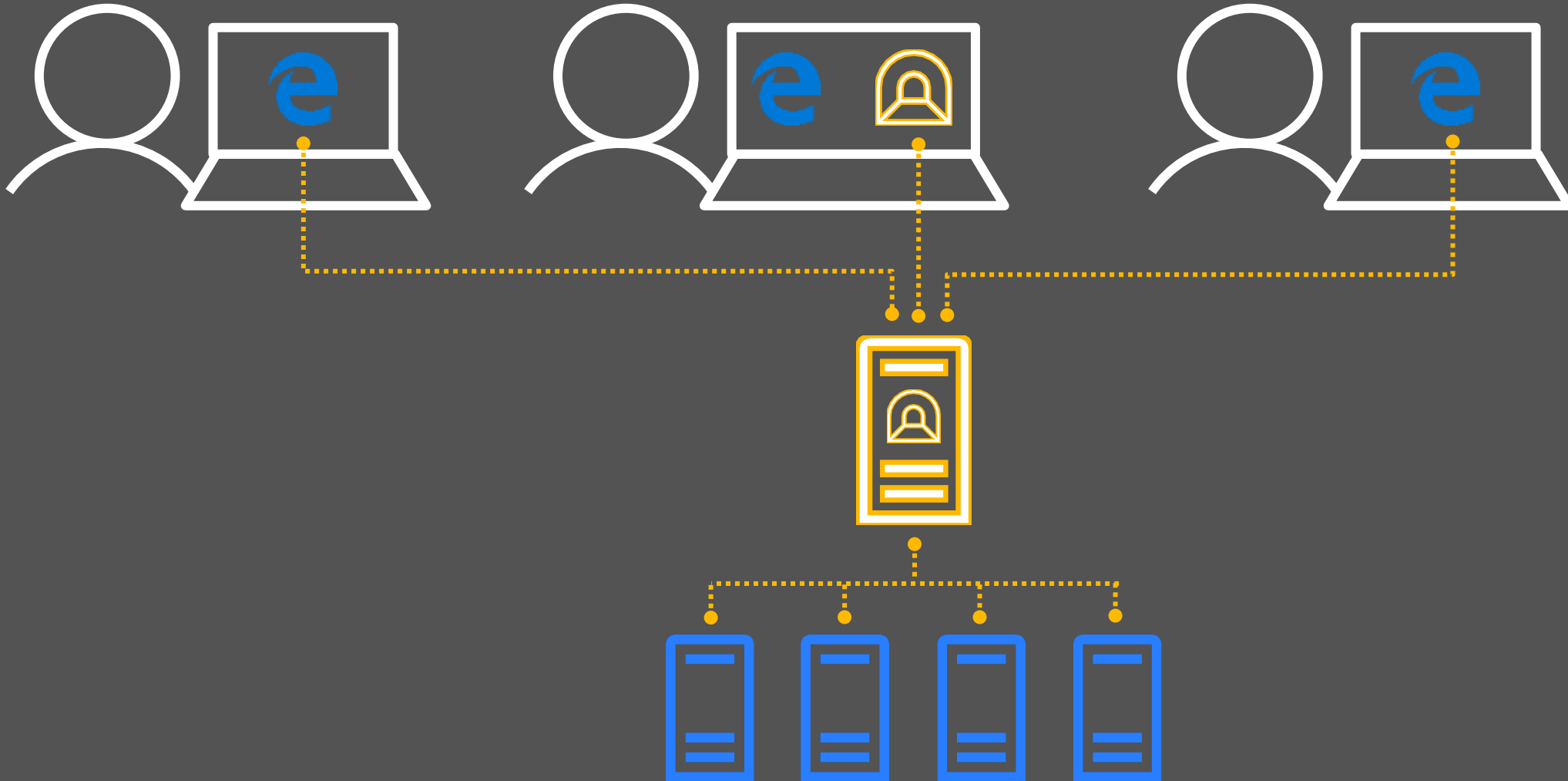
iFrame separation allows for implementation variety and portability of extension modules

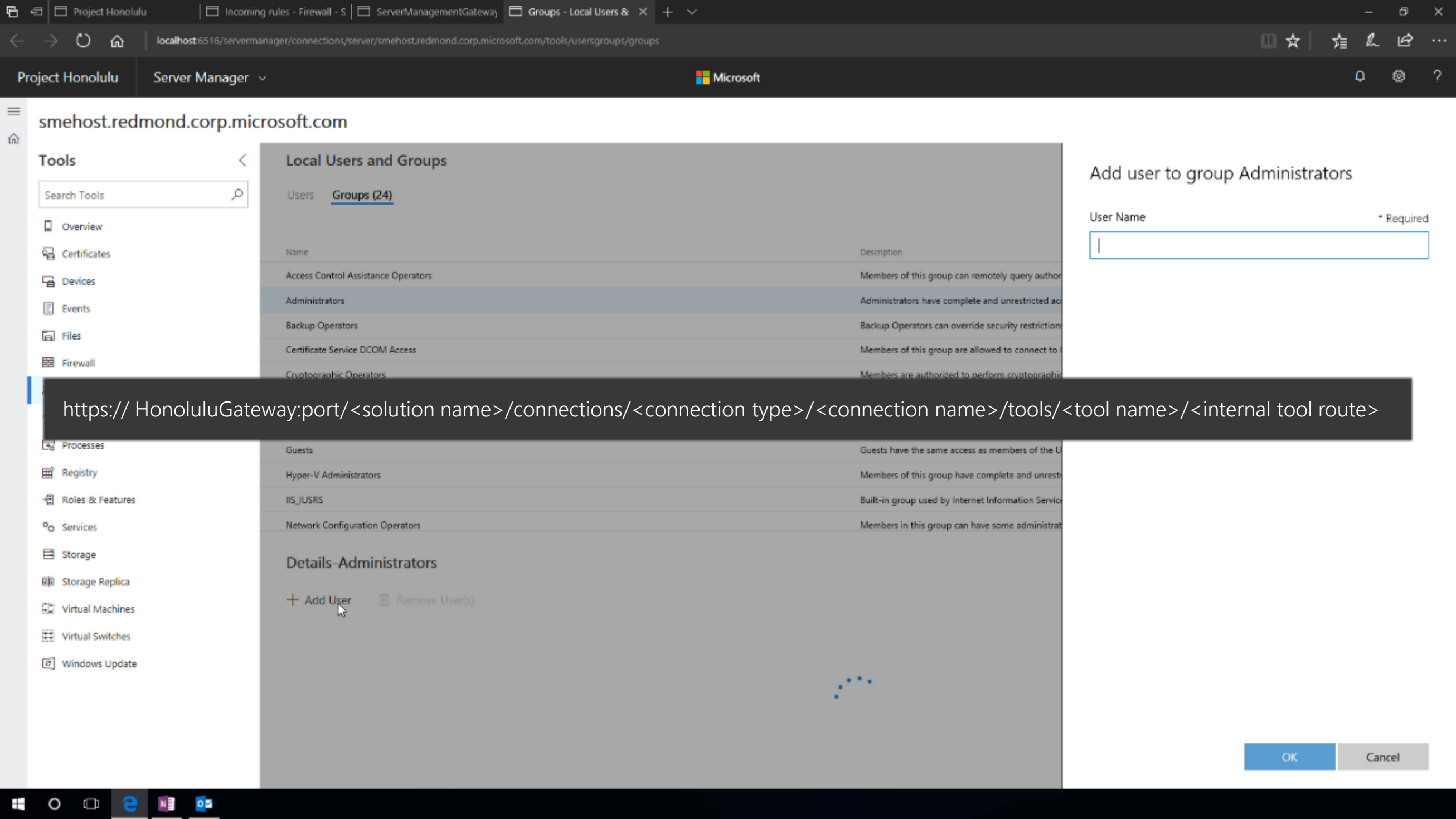
Content can be rendered for integration back into Azure or other cloud scenarios

How does Honolulu work?



How does Honolulu work?





https:// HonoluluGateway:port/<solution name>/connections/<connection type>/<connection name>/tools/<tool name>/<internal tool route>

Requirements

OS Support for Install

- Windows 10 (Desktop Mode), Server 2016 Full or Core (Gateway Mode), Windows Server Build 1709 Core (Gateway Mode), Server 2016 or Hyper-V Server Core container (not yet officially supported)
- Server Gateway requires Kerberos delegation enabled in domain.

OS Support for Clients

- Windows 10, Server 2016, Server Build 1709
- 2012 & 2012R2 require WMF 5 install (\$PSVersionTable)

Certificate

- *Self-Signed or Legit (60 days expiration on generated certificate)

WinRM, WMI, PowerShell Remoting

- Admin rights, local or domain → Local Administrator Password Solution (LAPS)
- Framework 5 → Server 2012 / 2012R2 (again \$PSVersionTable)
- WinRM over HTTP inbound → Existing rule needs to be enabled by network location
- Trusted Hosts → Done by installer now



WinRM and WMI

- “winrm quickconfig”
- WinRM enabled on Public network by default limits access to local subnet
- Firewall Rules
 - WinRM over HTTP tcp/5698 (not HTTPS!)
 - “Set-NetFirewallRule -Name WINRM-HTTP-In-TCP-PUBLIC -RemoteAddress Any”
- Trusted Hosts
 - Have installer do it for you
 - Troubleshooting → check this

Tips

- Use tags
- UI can be customized, but messy (manifest.json & strings.json)
- Connection entries kept in ESENT DB
 - Gateway - %windir%\ServiceProfiles\NetworkService\AppData\Roaming\Microsoft\ServerManagementExperience
 - Desktop - %AppData%\Microsoft\ServerManagementExperience
- Local Admin authentication may require Registry edit on target
 - REG ADD HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System /v LocalAccountTokenFilterPolicy /t REG_DWORD /d 1
- PowerShell modules
 - Remoting - \Program Files\Project 'Honolulu' (Technical Preview)\PowerShell\Modules\ManagementTools
 - Core - \ProgramData\Server Management Experience\Ux\powershell-module\Microsoft.SME.Shell

Honolulu FAQ

Cost	Browse using	Installs on	Manages	Connectivity
Free!	 Edge  Chrome	Windows Server, version 1709 Windows Server 2016 Windows 10	Windows Server, version 1709 Windows Server 2016 Windows Server 2012 R2 Windows Server 2012 Microsoft Hyper-V Server	Azure not required Internet not required AD not required
Security	Configuration	Positioning	Feedback	Extensions
HTTPS LAPS Delegation	IIS not required Agents not required SQL not required WMF 5.1 required on WS 2012 and 2012 R2	Evolution of “in-box” tools Complementary to RSAT, SC and OMS	Upvotes via UserVoice	Early alpha SDK in private preview

What's Missing Yet

Quite a bit actually,
but it's growing rapidly

Some serious focus on Clustering and Hyper-V

What's Coming*

3rd Party
Extensions

More Server
Services &
expansions

UI Changes –
Groups,
customization, etc.

Export

Active Directory
Import

RBAC

SDK

RDS Management

Linux?

Demos

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