This post looks at several VDI and DaaS solutions, with a focus on how they integrate with Nutanix. This is not an in-depth analysis of each solution, it is a high-level breakdown of what the solution can do, and what it maybe cannot. We don't delve into the different options across different platforms, rather focus on how each solution integrates with our platform.

We make an honourable note to a couple of obvious absentees in this list, our friends at Horizon who have no integration with AHV (wouldn't that be nice), and our pals running Azure Virtual Desktop, who refuse to play with anyone other than Azure, and their own Stack solution (guess what, everything technically works fine on AHV...).

Solution Overview Summary

As a rapid point of reference, below is a summary table outlining a few key components across the solutions we are referencing. For good measure, we included Horizon and AVD in the summary list.

	Broker Placement		Nutanix Integration		Published Resources		
	Cloud	On-Prem	PE	PC	Apps	Desktops	Protocol
Citrix	X	X	X	X	X	X	HDX/ICA
Parallels		X	X		X	X	RDP
Accops Hyworks		X	X	X	X	X	RDP
Workspot	X		X		X	X	RDP
Dizzion Frame	X		X		X	X	FRP
Teradici	X					X	PCoIP
LeoStream		X	X			X	Multi
UDS Enterprise		X	X	X	X	X	Multi
Inuvika	X	X			X	X	RDP
RDS		X			X	X	RDP
Horizon	X	X			X	X	PCoIP/Blast
AVD	X				X	X	RDP
TGX						X	Mechdyne TGX

Note that where a cell is merged under PE and PC integration, it means that both are required, rather than an option.

Citrix Virtual Apps and Desktops / DaaS

Citrix offer two solutions, Citrix Virtual Apps and Desktops (CVAD) for on-premises deployments and Citrix Desktops as a Service (DaaS) for a cloud-based control-plane with workloads located on premises (or anywhere else).

Easily the solution with the most flexibility and tightest integration with Nutanix (because we build it), Citrix is easily the premium solution for brokering workloads on Nutanix AHV.

We currently integrate with Citrix via a PE for both on-prem and AWS NC2 deployments, and via PC for our Azure NC2 customers. Our focus is Prism Central integration for all deployments moving forward.

Consideration	Detail
AHV Integration	Prism Element and/or Prism Central (Azure only)
Protocol	ICA/HDX
Broker Placement	On-Prem (CVAD) or Cloud (DaaS)
Operating Systems	Windows Desktop, Windows Server, Linux Desktops, Linux Server
Session Support	Single-Session, Multi-Session
Published Resources	Applications and Desktops
Provisioning Methods	- Persistent and non-persistent - Disk based clone (full) via Machine Creation Services - Network Streamed via Provisioning Services
Nutanix Solution Brief	Citrix EUC - Running Virtual Apps & Desktops on Nutanix | Nutanix
Additional Integration Notes	- Citrix Provisioning Services integration with PE. - Citrix Session Recording validated on Nutanix Files. - Citrix App Layering integration with PE - Cirix Director integration (CVAD). - Uses snapshots for PE MCS provisioning. - Uses Templates for PC MCS provisioning.

Profile Management	- Citrix Profile Management (file-based and container-based) - Citrix App Layering (User Layers) - Citrix User Personalization Layer (CPM feature) - FSLogix Enhancements (CPM adds features to FSLogix) All options can be stored on Nutanix Files
Application Packaging and Management	- Citrix App Layering (ex-Unidesk) - Integration with App-V (publishing) - Integration with MSIX & App-Attach (publishing) All options can be stored on Nutanix Files
Remote Access	- Citrix Gateway Service for DaaS - NetScaler Gateway for CVAD or DaaS (validated on Nutanix AHV)

Nutanix regularly, baselines, validates and performance tests Citrix deployments on Nutanix. There are many reference architectures, best practice guides, tech notes and a Nutanix Validated design, all available on the solutions portal.

As an additional note, as it currently stands, Citrix is the **only** solution to have been validated against NC2.

Documentation Sources

- Nutanix Solutions Documentation
- Citrix and Nutanix - Citrix
- Nutanix virtualization environments | Citrix Virtual Apps and Desktops

Parallels Remote Application Server (RAS)

Parallels RAS offers an on-prem only brokering solutions with integration into Nutanix Prism Element. RAS is a Windows only focused solution, so Linux folk are out of luck. RAS uses RDP as it's protocol of choice and is thus limited by those feature sets from a protocol standpoint.

Consideration	Detail
AHV Integration	Prism Element
Protocol	RDP
Broker Placement	On-Prem
Operating Systems	Windows Client, Windows Server
Session Support	Single-Session, Multi-Session
Published Resources	Applications and Desktops
Provisioning Methods	- Persistent and non-persistent - Disk-based clone (full)
Nutanix Solution Brief	Reduce Cost and Complexity of VDI with Parallels Remote Application Server and Nutanix
Additional Integration Notes	Uses a Virtual Machine as VM Template for Provisioning
Profile Management	- Nothing proprietary - Drives FSLogix (can be stored on Nutanix Files)
Application Packaging and Management	- Nothing proprietary - Integration with App-V (publishing) - Integration with MSIX & App-Attach (publishing) App-V and MSIX packages can be stored on Nutanix Files
Remote Access	Secure Gateway Role

Nutanix has published a reference architecture on Parallels RAS with Nutanix AHV, along with an internal post working through some of its feature sets.

Documentation Sources

- Parallels RAS on Nutanix AHV
- Hyperconverged Solutions | Nutanix and Parallels RAS
- MSIX App Attach Integration Included in Parallels RAS 19 - Server and Cloud Blog

Accops (HyWorks)

Accops paint an interesting picture of capability, even if they can't spell Nutanix properly just yet. They have integration with *Nuntanix* (that was on purpose) at both a PE and PC level and offer published resources across both Windows and Linux Operating systems.

The protocol of choice is RDP, so likely a similar style performance to anyone else playing in that sandpit.

Consideration	Detail
AHV Integration	Prism Element and/or Prism Central
Protocol	RDP
Broker Placement	On-Prem (They also have a DaaS offering)
Operating Systems	Windows Desktop, Windows Server, Linux Desktops, Linux Server
Session Support	Single-Session, Multi-Session
Published Resources	Applications and Desktops

Provisioning Methods	• Persistent and non-persistent • Disk based clone (full)
Nutanix Solution Brief	Accops Systems (nutanix.com)
Profile Management	Nothing proprietary
Application Packaging and Management	• Nothing proprietary • Integration with MSIX App-Attach (limited)
Remote Access	Additional Product - HySecure

Documentation Sources

- Desktop & Application Virtualization Solutions |Digital & Hybrid Workspace | Accops

- Components - Accops HyWorks 3.3 Knowledge Center

- Prepare Nutanix Prism Element/Central - Accops HyWorks 3.3 Knowledge Center

- Accops+HyWorks_v3.2-GA_Release+Notes_Doc-v1.3.pdf

- A Fully Managed, Turnkey Desktop-as-a-Service (DaaS) (accops.com)

- MSIX App Attach - Accops HyWorks 3.3 Knowledge Center

- Network Deployment - Accops HyWorks 3.3 Knowledge Center

Workspot

Workspot is a Cloud based solution focused on "Enterprise VDI". They operate a Cloud Hosted control plane and integrate with Nutanix AHV via Prism Element. The usual Apps and Desktops, Windows and Linux Desktops are supported.

Their collateral still references the Nutanix Extreme Computing Platform which is pretty retro.

Consideration	Detail
AHV Integration	Prism Element
Protocol	RDP
Broker Placement	Cloud
Operating Systems	Windows Desktop, Windows Server, Linux Desktop
Session Support	Single-Session, Multi-Session
Published Resources	Applications and Desktops
Provisioning Methods	• Persistent and non-persistent • Disk based clone (full)
Nutanix Solution Brief	Workspot (nutanix.com)
Profile Management	Nothing proprietary
Application Packaging and Management	Nothing proprietary
Remote Access	Cloud Gateway

Documentation Sources

- Workspot Control | Community

- Workspot OS and Hardware Requirements | Community

- Create the Nutanix Private Cloud in Workspot Control | Community

- Workspot-Nutanix-Ready-DV-AHV-06152016.pdf

- Nutanix Integration Configuration Guide – Workspot Help Center (zendesk.com)

Dizzion Frame

Frame, not too much needs to be said here. Is a DaaS player (now owned by Dizzion), integrates with Nutanix AHV via a combination of both Prism Central and Prism Element integration, provisions the usual suspects but brings its own protocol to the table.

Whilst there is significant history with Nutanix integration here, it is important to note that as of today, Frame is not validated on NC2.

Consideration	Detail
AHV Integration	Prism Element and Prism Central (requires both)
Protocol	FRP
Broker Placement	Cloud
Operating Systems	Windows Desktop, Windows Server, Linux Desktops
Session Support	Single-Session
Published Resources	Applications and Desktops
Provisioning Methods	• Persistent and non-persistent • Disk based clone (full)
Nutanix Solution Brief	Frame: Simplify End User Computing with DaaS (nutanix.com)
Profile Management	• Personal Drives • Enterprise Profiles Neither of these solutions integrate with Nutanix Files SMB shares
Application Packaging and Management	Profile Management
Remote Access	Cloud Gateway

Documentation Sources

- Nutanix AHV | Frame Platform Documentation
- Persistent Desktops Administration | Frame Platform Documentation
- Personal Drives | Frame Platform Documentation
- Enterprise Profiles | Frame Platform Documentation

HP Anywhere / Teradici

Teradici is the creator of the PCoIP remoting protocol technology. They are owned by HP. Cloud Access Manager is the extension of Teradici which deploys desktops on public clouds only. There is no Nutanix provisioning integration natively.

Anyware Manager is a HP management plane enabling users to configure, manage and monitor brokering of remote workstations. HP offers Anyware Manager as a Service.

Consideration	Detail
AHV Integration	None but OK with workloads running on AHV
Protocol	PCoIP
Broker Placement	Cloud
Operating Systems	Windows and Linux Desktops
Session Support	Single-Session
Published Resources	Desktops
Provisioning Methods	For public cloud provisioning via Cloud Access Manager. Can also integrate with LeoStream
Nutanix Solution Brief	Teradici (nutanix.com)

Additional Integration Notes	Can be leveraged by LeoStream
Profile Management	Nothing proprietary
Application Packaging and Management	Nothing proprietary
Remote Access	Anyware Connector

Documentation Sources

- What is Cloud Access Manager? - Teradici Cloud Access Manager
- What is Anyware Manager as a Service? - Anyware Manager as a Service (teradici.com)
- Overview - Anyware Manager as a Service (teradici.com)

Leostream

Leostream are a bit different than the usual provider, they support multi-protocol access to a range of different systems. Most solutions are locked to say HDX, or Blast, or mostly RDP, but Leostream can control access to desktops with a range of different protocols. For provisioning on AHV, it requires both Prism Element and Prism Central configurations.

Consideration	Detail
AHV Integration	Prism Element and Prism Central (requires both)
Protocol	Multi-Protocol
Broker Placement	On-Prem
Operating Systems	Windows Desktop, Windows Server, Linux Desktop
Session Support	Single-Session, Multi-Session

Published Resources	Desktops and Applications (RemoteApp integration only)
Provisioning Methods	- Persistent and non-persistent - Disk based clone (full)
Additional Integration Notes	Can use either a snapshot or OVA for provisioning on Nutanix
Profile Management	Nothing proprietary
Application Packaging and Management	Nothing proprietary
Remote Access	Leostream Gateway

Documentation Sources

- Getting_Started_with_Leostream_Concepts.pdf
- Quick Start Using Leostream with Nutanix AHV
- Leostream_quick_start.pdf
- leostream_display_protocols.pdf

UDS Enterprise

A smaller player, UDS ships a range of ready to go appliances (Linux) to cover the usual brokering components. They support a multi-protocol setup and the usual endpoint configurations. They integrate with Nutanix via Prism Element and/or Prism Central.

Consideration	Detail
AHV Integration	Prism Element and/or Prism Central
Protocol	Multi-Protocol

Broker Placement	On-Prem
Operating Systems	Windows Desktop, Windows Server, Linux Desktop, Linux Server
Session Support	Single-Session, Multi-Session
Published Resources	Applications and Desktops
Provisioning Methods	- Persistent and non-persistent - Disk based clone (full)
Nutanix Solution Brief	[uds-enterprise.pdf (nutanix.com)](uds-enterprise.pdf)
Additional Integration Notes	Uses a VM as the provisioning Template in Nutanix
Profile Management	Nothing proprietary
Application Packaging and Management	Nothing proprietary
Remote Access	- Secure Gateway for PCoIP connections (part of the Cloud Access Suite) - External NAT required to both Server appliance and optional tunneler appliance. If no tunneler, must have line of sight to the endpoints (VPN etc)

Documentation Sources

- UDS Enterprise & Nutanix Acropolis VDI (youtube.com)

- Multicloud management with Nutanix Prism Central in UDS (udsenterprise.com)

- Documentation - All the resources at your fingertips | UDS Enterprise

- UDS Enterprise Technical specifications

- [UDS Enterprise & Nutanix Acropolis Quick Steps](#)

- [UDS Enterprise 3.6 Installation, Administration and User Guide](#)

Inuvika

Inuvika OVD (Open Virtual Desktop) are a little bit of a black box. They target Citrix as complex, but don't appear to offer any form of provisioning, or enhancements. They provide a Linux based deployment solution for on-prem deployments and an offer for Cloud hosted for partners.

Consideration	Detail
AHV Integration	None but OK with workloads on AHV
Protocol	RDP
Broker Placement	On-Prem (with a DaaS option as well)
Operating Systems	Windows Desktop, Windows Server, Linux Desktop, Linux Server
Session Support	Single-Session, Multi-Session
Published Resources	Applications and Desktops
Provisioning Methods	None
Nutanix Solution Brief	Run Apps and Desktops on any Device with Inuvika OVD Enterprise (nutanix.com)
Profile Management	Nothing proprietary
Application Packaging and Management	Nothing proprietary
Remote Access	Enterprise Secure Gateway role

Documentation Sources

- Installation and Configuration Guide - Inuvika Documentation
- Inuvika OVD Enterprise Tech Specs and System Requirements

Microsoft RDS

Well why not. It's still there. RDS underpins multi-session access to Windows Server in all solutions. It has no integration with Nutanix or any other hypervisor, and no provisioning mechanisms. You can likely guess which protocol it uses though.

Consideration	Detail
AHV Integration	None but OK with workloads on AHV
Protocol	RDP
Broker Placement	On-Prem
Operating Systems	Windows Server, Windows 10
Published Resources	Applications and Desktops
Session Support	Single-Session, Multi-Session
Provisioning Methods	None
Profile Management	User Profile Disks (lol)
Application Packaging and Management	Nothing proprietary
Remote Access	Remote Desktop Gateway Role

Mechdyne TGX Remote Desktop

A specialized focus on graphics specific optimizations, similar to Teradici. The solution offers a 1:1 relationship between a graphics workstation (Sender) and the endpoint (Receiver). There is no broker or supporting infrastructure. The configuration is guest OS based.

Consideration	Detail
AHV Integration	None but OK with workloads on AHV
Protocol	Mechdyne TGX
Broker Placement	No Broker
Operating Systems	Windows, Linux, MacOS
Session Support	Single-Session
Published Resources	Nothing published, 1:1 connection between sender and receiver
Provisioning Methods	None
Profile Management	Nothing proprietary
Application Packaging and Management	Nothing proprietary
Remote Access	Requires direct line of site

Documentation Sources

- TGX Remote Desktop - Software Services (mechdyne.com)

- TGX-Install-Guide-2023.1.pdf (mechdyne.com)

- TGX-Administrator-Guide-2023.1.pdf (mechdyne.com)

Summary

Given how light some of the solution documentation is around some of the smaller players, there may be additional capabilities and considerations around how integration occurs with Nutanix. Please feel free to reach out if we have missed anything, or inadvertently misrepresented capability or lack thereof. This post has been primarily guided by research and joining-the-dots rather than via testing of each solution.

Topics

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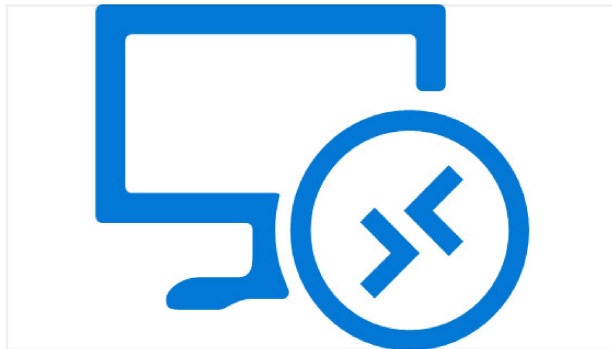
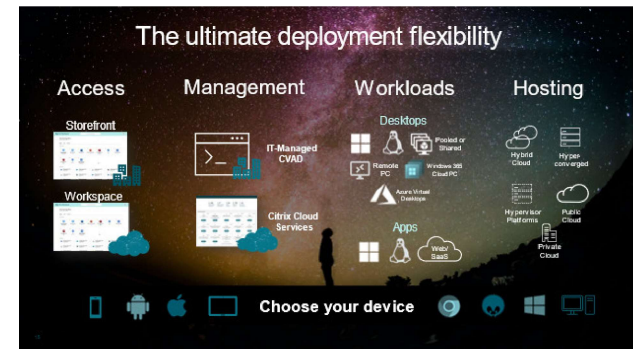**Azure Virtual Desktop and Windows 365 - Defini...**

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