

Agenda

- 1. The New Normal WFH
- 2. MS Remote Access Services
- 3. MS RDS Virtual Apps & Desktop
- 4. Citrix Virtual Apps & Desktop

Securing your connection from Home

In today's intense Covid-19 crisis, many companies small and large alike find themselves in a bind. Many of their employees need to work from home securely and reliably. In this session, a highly cost effective approach and even better still capabilities which you already have built-in Windows Server will be shared.



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- A technical Consultant at RefineNetworks Sdn Bhd. Focus on the arena of infrastructure and security. Experience in design and implement various Infrastructure, Security, LAN & WAN Networking, and Cloud solution.
- He holds an active ISC2 CISSP certification and was awarded as a Microsoft MVP on Virtual Machines for three terms.
- He is a veteran on Citrix application and desktop virtualization solution.
- He is passionate with Microsoft technologies on the areas of Azure Stack HCI, VDI, and RDS solution.

Broadest Offerings (Intel, AMD, Workload Optimized)



ML350 GEN10 2* - 4 node Hybrid



DL360 GEN10 2* - 4 node Hybrid

2* - 4 node All Flash



DL380 GEN10

2* - 16 node All Flash 2* - 16 node Hybrid 2* - 16 node Hybrid w Intel Optane DC PMEM



EDGELINE EL8000

Converged Edge System 2* - 4 nodes All Flash



DL325 GEN10

2* - 4 node Hybrid 2* - 4 node All Flash



DL385 GEN10

2* - 16 node Hybrid 2* - 16 node All Flash



D3610/D3710 JBOD

Supported for use on DL380/385/360
Apollo 4200 – SAS only



APOLLO 4200 GEN10

2* - 16 node Hybrid 2* - 16 node All Flash



SYNERGY 480 GEN10

2* - 16 node Hybrid

2* - 16 node All Flash





Broadest Offerings

SWITCHLESS

More affordable, reduce failure points, faster







INTEL OPTANE PERSISTENT MEMORY

Fastest HCI





Most affordable storage





Satya Nadella, Microsoft CEO

"We've seen two years' worth of digital transformation in two months.

From remote teamwork and learning, to sales and customer service, to critical cloud infrastructure and security

 we are working alongside customers every day to help them adapt and stay open for business in a world of remote everything,"



Productive, even When Working Remotely







Organisations migrating/looking for their business operations to digital infrastructure and platforms

Provide a powerful meetings, collaboration and workflow experience to those working from home

Connect workers to the rest of the organization with a digital tool for communication, collaboration and shifts

Enable remote work and learning with industry-specific governance and compliance

The Way People Work is Changing

ARLINGTON, VA, April 3, 2020

Gartner CFO Survey Reveals 74% Intend to Shift Some Employees to Remote Work Permanently

Nearly Three in Four CFOs Plan to Shift at Least 5% of Previously On-Site Employees to Permanently Remote Positions Post-COVID 19

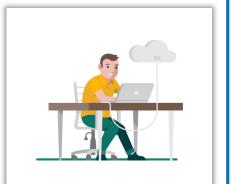
A Gartner, Inc. survey of 317 CFOs and Finance leaders on March 30, 2020* revealed that 74% will move at least 5% of their previously on-site workforce to permanently remote positions post-COVID 19.



Security is Their Top Priority



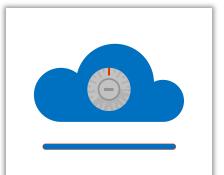
Enable remote access to cloud & on-premises apps



Simplify discovery of apps for end users



Collaborate with contractors and partners



Security controls to protect access to apps



Extend data protection to devices



Identities



Devices



Apps



Infrastructure



Data







What is important to **□**?



Can we rapidly deploy an employee access remote access solution?



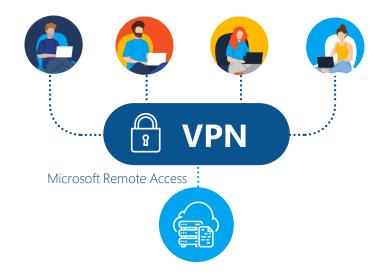
Is our environment flexible enough to dynamically respond to business needs?



Can we ensure best security, performance and reliability to our users?



Secure Connections: VPN with Remote Access



Windows Server 2019
Standard and Datacenter OS

- + Windows Admin Center
- + Server Hardware

How it works



- o Built-in Windows Server at no additional cost.
- o CALs provide access to Windows Server services.
- Secure connection from user to their office.
- Users have a peace of mind.



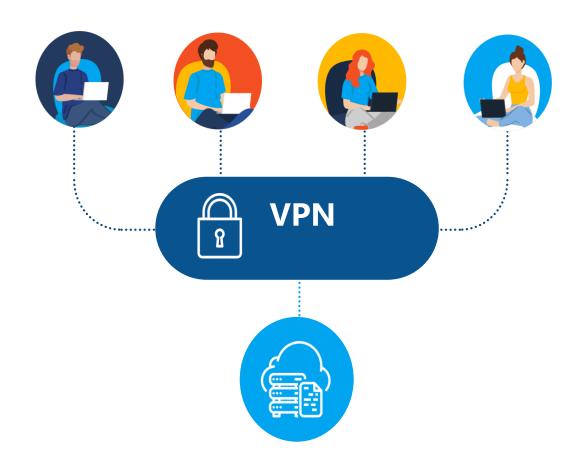
How does this **benefit customers**



- → Simple to setup and manage.
- → Gain security and reliability for your most demanding applications and users.
- Achieve **cost savings** with the flexibility to scale and grow as you need to.



Secure Connections: VPN with Remote Access





Demo



Remote Applications for Home Users: RDS

Windows Server 2019 Standard or Datacenter OS/CALs

- + Windows Admin Center
- + Server Hardware

Session-based computing



Virtual Desktop Infrastructure



How it works



- Easy to use for users.
- o Applications run on their servers and data is kept in their servers.
- o RDS roles are built-in to Windows Server.
- o RDS licensing is managed.



How does this **benefit customers**



- → Easy access to applications and data, still maintain data security in their servers.
- Gain flexibility and reliability for your most demanding needs and users.
- → Central management and deployment of business data and applications.



Microsoft HCI: with Azure Stack HCI

Windows Server 2019 Datacenter OS

- + Windows Admin Center
- + Server Hardware

Hyper-converged infrastructure



How it works

- o **2-16 nodes:** From ROBO to large clusters.
- o Built-in cache: Maximize flash and NVDIMM for cache, leverage latest Intel Optane 3D Xpoint.
- o **RDMA:** For inter-node communication at wire speed.
- o **Architecture:** Supports converged and hyperconverged design, even with external JBOD.
- o Built-in HA and DR: Using Storage Replica and Hyper-V Replica.



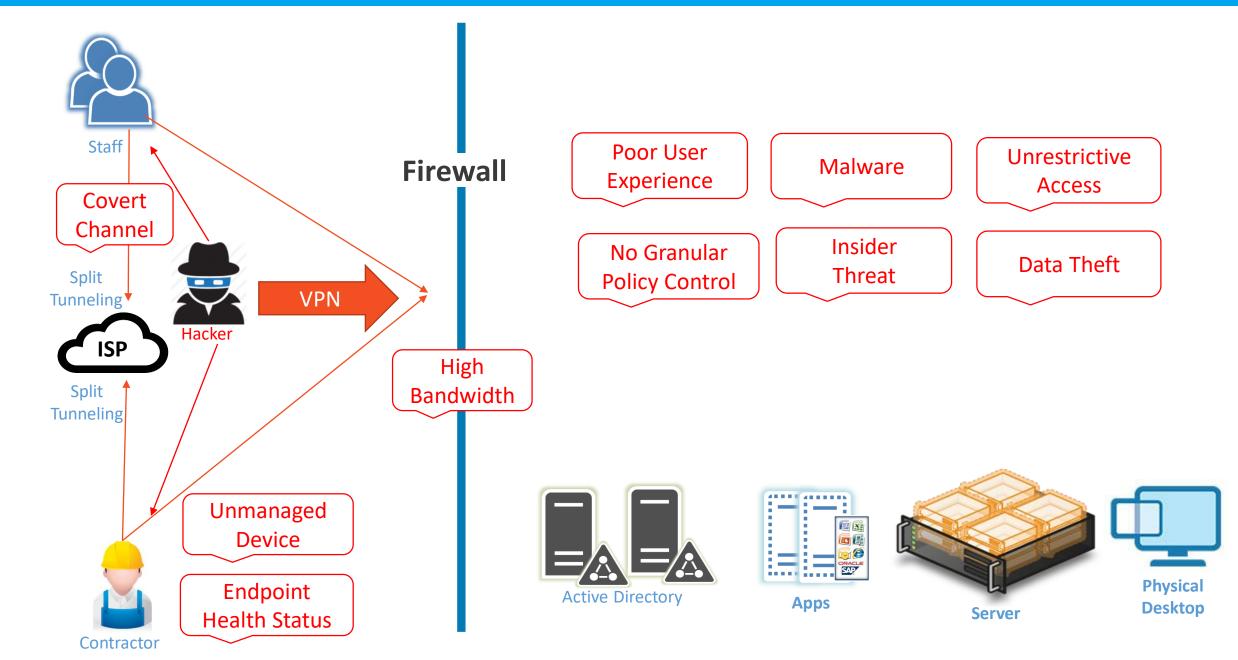
How does this **benefit customers**



- → Maximum **high availability** and DR with Live Migration, VM Load Balancing, Hyper-V Replica & Storage Replica.
- Gain **performance and reliability** for your most demanding applications.
- Achieve **cost savings** with the flexibility to scale and grow as you need to.



Security Risks on VPN Infrastructure



VDI Use Case



Security and regulation

Financial Services

Healthcare

Government



Elastic workforce

Mergers and acquisition

Short term employees

Contractor and partner access



Specific employees

BYOD and mobile

Call centers

Branch workers



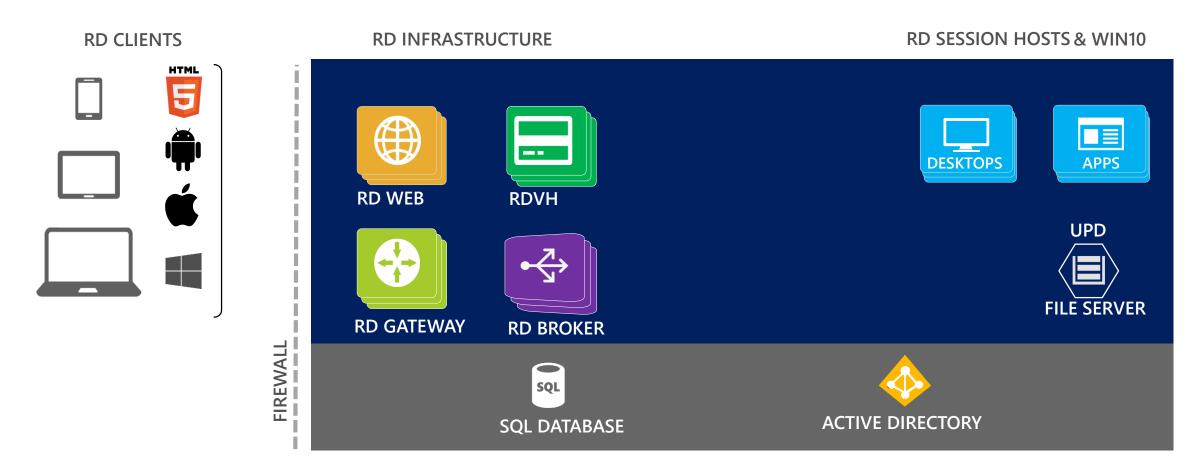
Specialized workloads

Design and engineering

Legacy apps

Software dev test

RDS in WS 2019



- Integrated with RD Web, connect from any html5 browser device, no RD client installation
- RD Virtualization Host (VH) enabled using nested Virtualization in Azure Support Windows 10 VDI
- No Windows Multipoint Server (WMS)

Which One to Choose?





Property Type	Landed	High Rise Building
Туре	Windows Desktop / VDI	RemoteApps
Mode	Desktop Virtualization	Application Virtualization
Hardware	High Cost High Spec Server – RAM, CPU, SSD	Low Cost Lower Spec Server – RAM, CPU, SATA
Software	High Cost (MS VDA) USD 150 per user	Low Cost (MS RDS) USD150 perpetual
Expertise & Maintenance	High	Low
Density	Low (User Ratio 1: 1)	High (User Ratio 1: Many)
Bandwidth Consumption	Higher	Low

Remote Applications for Home Users: RDS

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- + Server Hardware

Session-based computing



Virtual Desktop Infrastructure



Demo



Applications & Desktop Virtualization: Citrix

Additional to Microsoft RDS Solution

+ Citrix Virtual Apps & Desktop

Application Virtualization



Virtual Desktop Infrastructure



How it works >>>>



- o User can access their apps simply and easily like in their office.
- Easy to use for users.
- o Applications run on their servers and data is kept in their servers.
- o RDS roles are built-in to Windows Server.
- o RDS licensing is managed.



How does this benefit customers



- **→** Access anytime, anywhere with any device
- Advanced security control and superior performance
- → Great for 3D and high definition applications use



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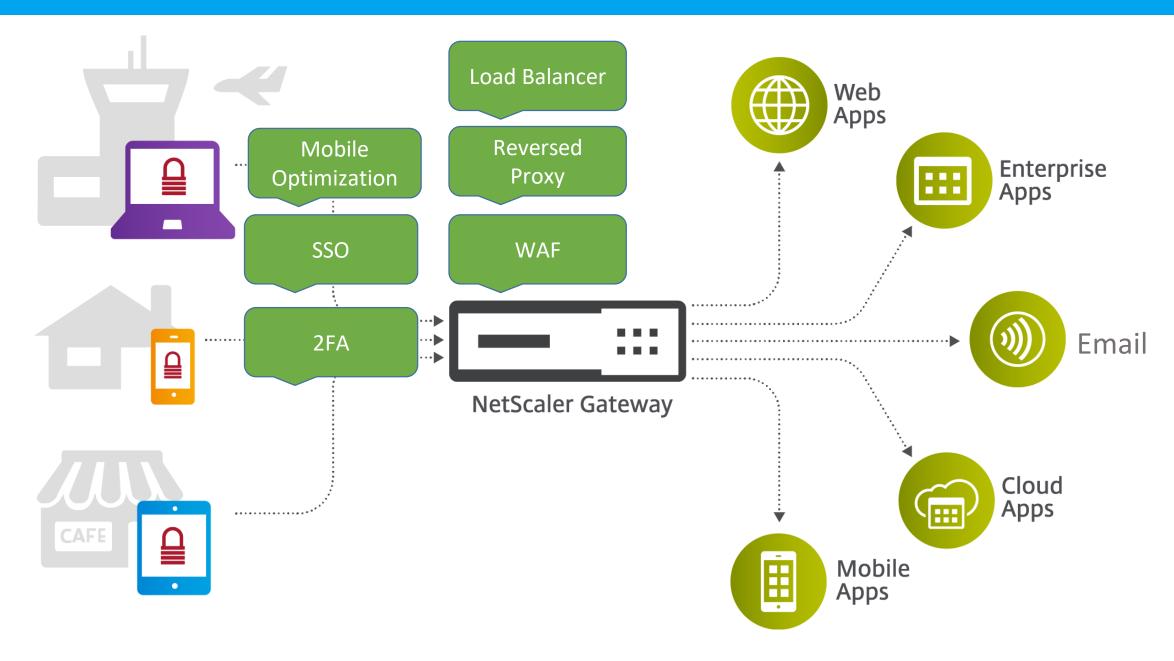
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- → Gain performance and reliability for your most demanding applications.
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Citrix VAD



Value-Add of Citrix VAD to Microsoft RDS/WVD - Highlights

- Simple and consistent (first) user experience on any device
- Industry-leading support for peripheral devices & gestures, across endpoint platforms
- Extensive partner eco system (Citrix Ready)
- Linux-based app and desktop virtualization
- Windows Continuum experience on any device
- Virtual Display Layout for advanced use cases
- Superior user experience on any network connection and device with HDX
- Local Text Echo for immediate user feedback in high-latency network conditions
- Support for SAML-based auth (e.g. Google ID) & options for anonymous / kiosk access
- Built-in WAN optimization (SDWAN)
- Driver-less and hassle-free printing from any device and with minimal bandwidth consumption
- Automatic configuration of Workspace app by means of Email based discovery
- Seamless access to local applications
- Industry-leading Unified Communications optimization for Microsoft, Cisco, Avaya, and Zoom
- Optimization for Microsoft Teams

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- Support for multi-touch and gestures on with HTML5 based client
- Support for file up-/download and printing with HTML5 based client
- Seamless apps on HTML5 based clients
- instant application start with Session Pre-Launch and Session Lingering
- Support for Intel IRIS Pro for graphics acceleration at an affordable price
- Proximity-based auth with Citrix Ready Workspace Hub as a Thin Client
- Industry-leading support for multi-monitor setups (incl. 4k)
- Improved web browsing experience for users due to Browser Content Redirection
- Protection against screenshots and keylogging
- Built-in Watermarking for virtual apps and desktops
- Hardened appliance for secure remote access
- Filtering applications based on user location, device or other characteristics
- Role-based administration and configuration logging for admins
- Granting/Prohibiting access to local client resources or devices (e.g. local client drives) by means of a flexible and context-aware policy engine
- Build-in policy engine for lower dependence on Active Directory
- Policy comparison & Modeling right from within Citrix Studio
- Built-in policy templates for simplified administration
- Enterprise-ready remote access solution, which is available as a service as well
- Session Recording for compliance and advanced troubleshooting
- Granular controls for clipboard mapping
- iOS jailbreak detection without EMM/MDM

- CVAD can be consumed as a service, for reduced management efforts
- Enterprise-ready centralized management of hybrid and multi-site environments
- Support for large variety of virtualization platforms, incl. Hyper-V, Citrix Hypervisor, vSphere, Amazon AWS, Google Cloud, Oracle Cloud, Microsoft Azure and Nutanix
- Extensive partner eco system with 1,000ths of verified devices, peripherals and software solutions (Citrix Ready)
- Built-in fast and flexible image management for desktops and servers (physical and virtual)
- Reduction of the I/O footprint of virtual desktops / servers by over 90% with PVS & MCS
- Centralized license usage insights, for better compliance and solution cost
- Industry-leading end user support console for efficient incident handling (incl. historical application usage and performance statistics and trending)
- Industry-leading application layering with better app compatibility, higher performance and lower infrastructure footprint
- Innovative RAM, CPU, and I/O optimization
- Integrated real-time network level monitoring and trending with HDX Insight
- Ability to host and publish any application (16, 32 and 64 bit / incompatible with server OS) by means of VM-Hosted Apps
- Detailed client auto-update configuration options
- Sophisticated VM Power Management for increased power efficiency (desktops / servers)
- Integration of Microsoft App-V for centralized application delivery management
- Integration with Microsoft System Center Configuration Manager for application management and publishing
- Flexible and non-disruptive infrastructure upgrades
- Support for applications that use a loopback address for inter-process communication (Virtual IP Loopback)
- Secure remote access to physical desktop PCs (RemotePC) with Wake on LAN support
- Integration with Microsoft System Center Operations Manager to reduce time-to-resolution
- Application limits for license compliance and better user load balancing
- Built-in multi-site management for improved admin efficiency and simplification
- Repurpose of legacy PCs with Receiver Desktop Lock and Desktop transformer
- IT Service Management Adapter for ServiceNow
- 5-year Long Term Service Release (LTSR)
- Linux-based multi-user and VDI app virtualization
- Ability to automate every admin task and built-in PoSH help
- Detailed image rollout scheduling, simple rollback of images and built-in testing of machine catalogs
- Superior scalability for very large-scale customers
- Built-in Workspace Environment Management solution
- Predictive service monitoring with Session Probing

Applications & Desktop Virtualization: Citrix

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Virtual Desktop Infrastructure



03

Demo



