

CLOUD WORKSPACE on AZURE



Pervasive **Organizational** Challenges

A myriad of IT and User Experience Maladies



Sizeable DC Footprint

- Massive capital investments
- Associated maintenance costs
- Rigid payment models

Deplorable VDI Experience

- High user login time for Microsoft stack on cloud
- Resource location constraints
- Incompatible legacy LOB applications
- New applications designed for cloud environments

Inflexible Consumption Model

- Rigid IT infrastructure
- Underutilized/ insufficient resources

Win 7, 2008 R2 End-of-Life

- 34% (70 million) still use Windows 7 and Windows 2008 R2
- High cost of extended support

HCL Cloud Workspace

Unmatched Virtual Desktop and Application Experience on Azure



SIMPLE

Turnkey solution with centralized management, seamless support and no-sweat usage



SCALABLE

On-demand scaling up and down of compute, memory and storage resources



ECONOMICAL

Reutilization of existing licenses and a consumption-aligned pay-out model



ADAPTABLE

Safe and assured access to users with high level of control



RELIABLE

High availability and failover protection

Highly intelligent,
flexible, secure and
Digital Workspace on the
go

Delivered leveraging
***cloud-optimized
technology***

HCL Cloud Workspaces Framework

Personalized & Intuitive workspaces-on-the-go which adapt to user needs

-  **Distinctive EXPERIENCE**
-  **Embedded INTELLIGENCE**
-  **Rationalized COSTS**



PROFILE
KALEIDOSCOPE

Personally Configured

Personally Owned

Corporate Owned

Corporate Managed



Consistent and Unified Access



Identity & Access Management



Efficient, Secure and Centralized Management



AIOps

Cognition, Automation and Analytics driven agile operations

Business-down, Persona-aligned

Reverse Connect Technology

Consumer-like Computing

Conditional Access & MFA

Advanced Security

SSO

Unrestricted Flexibility

Distinctive Experience

Ameliorate End-User Experience and bolster Productivity

Quantify User Experience with **UX Score**



- Experience Monitoring
 - Realtime & Historical Analysis of workplace performance
- Auto-remediation of issues
- Correlation models for predictive support



Effortless Virtual **App Delivery**

On-demand application delivery using application layering technology

- Session isolation
- Contextual delivery of approved apps for users

Self-Service **Portal**



Tailor-made User Portal

- Self-Provisioning of VMs
- On-demand VDI (new/ upgraded configuration)
- Ready to use Virtual Applications



Cut above **Performance**

- Better and consistent performance of Office applications
 - Superior email client performance
 - Seamless OneDrive for business synchronization
- Accelerated user load times

Seamless **Device Mapping**



- Eliminate workarounds by removing folder redirection/ network-share based workarounds
- Unified application masking with a single tool



Simplified **Management**

Swift deployment, centralized management and optimization technology to manage WVD workloads



Deliver the only multi-session Windows 10 experience

***AI Ops** powered diagnostics*

Sensors → **Pattern Discovery** → **Causality** → **Resolution**

Self-Service

Proactive Support

Optimized Insights

Insight Engine

Root Cause Analysis



Rationalized Costs

Realize supplemental pecuniary efficiencies

Economized Infrastructure Outlay

- Cost effective compute and storage
- Best value compute rate
- OPEX spend aligned to business usage

Judicious License Usage

- Savings on RDS CAL with multi-session deployment
- No need of server OS license or RDS license
- 3-year Win7 ESU included (till 2023)

Retrenched Labor Spend

- Compute and storage moves to cloud
 - Savings on maintenance of server racks, server patching, cooling, real estate, management of DC, physical/logical security

Flexible Network Provisioning

Pay for actual outbound data transfer instead of peak two-way data transfer

Cost Optimized
Virtualized Workspace



SAVINGS

COST

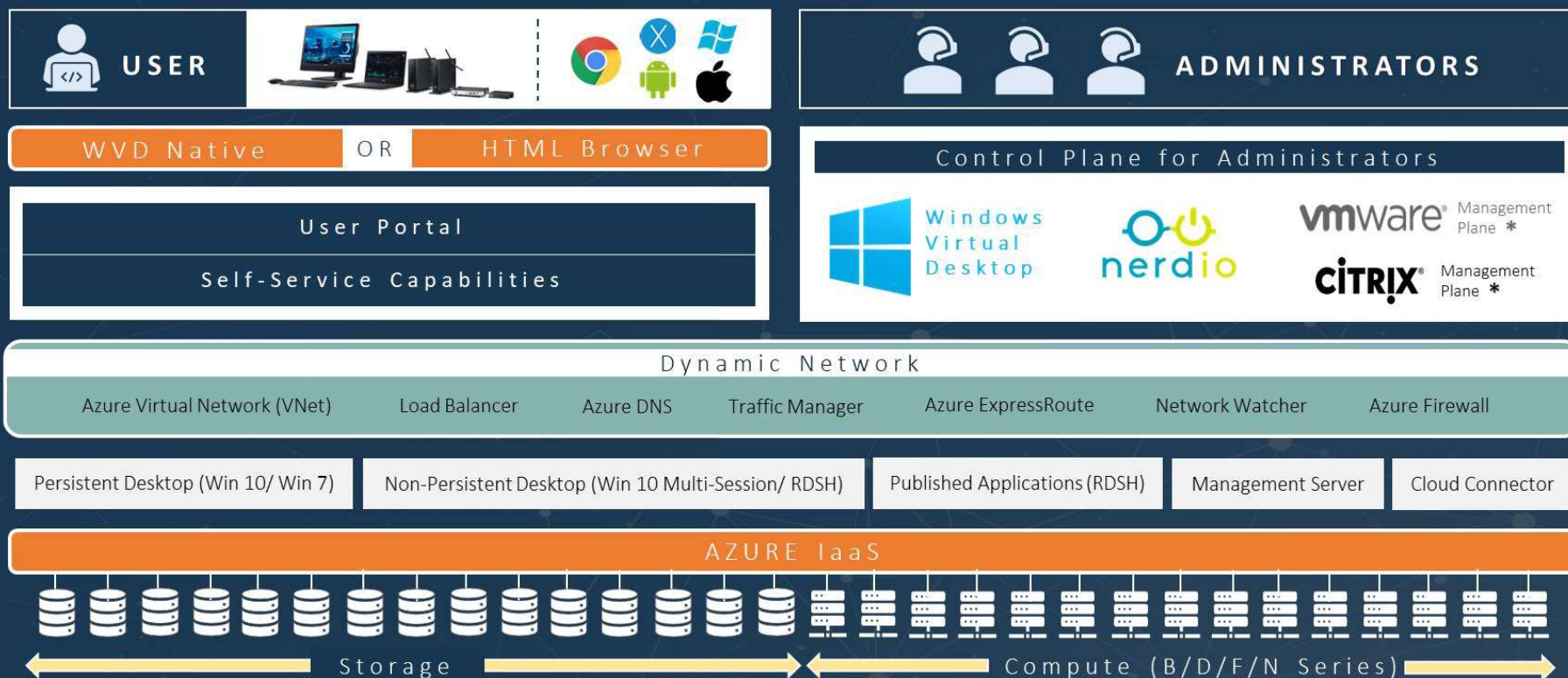
HCL

HCL Cloud Workspace **Models**

Conceptual **Architecture**

Available
in
140
COUNTRIES

Hosted in
54
REGIONS



Pilot Approach

Proof of Concept Methodology

WVD POC SCENARIOS

Deploy Windows 10 Multi Session WVD host pool(s)

Deploy Windows Server (2012 or 2016 or 2019) WVD host pool(s)

Publish Remote Apps and Remote Desktops

Optimize O365 using FSLogix containers

PRE-REQUISITES

Microsoft Azure

- An Azure tenant (Ex: yourdomain.onmicrosoft.com) environment along with at least 1 active subscription
- The user who will provision & configure WVD must have "Global Admin" rights to the Azure tenant they are a part of
- The user who will provision & configure WVD must have at least "Contributor" rights to the Azure subscription

Active Directory

- An Azure Active Directory
- A Windows Server Active Directory in sync with Azure Active Directory

DEPLOY

INSTALL/CONFIGURE

PUBLISH

TROUBLESHOOT

Win 10 Multi-Session User Host

- ✓ Determine host count basis user type and the number of user sessions
- ✓ Deploy Session hosts using Azure Gallery Image from Azure Portal or GitHub ARM template
- ✓ Install & configure required applications on session host

Windows Server RDSH

- ✓ Calculate number of host servers
- ✓ Deploy VM using the Azure Portal or ARM template
- ✓ Join the new VM to AD domain
- ✓ Manually register session hosts with WVD using PowerShell script
- ✓ Install & configure applications on session host

- ✓ Installing and configuring file server for user profiles redirection
- ✓ Installing FSLogix on all the session host for user profiling
- ✓ Configuring AD group policies and FSLogix policies for user profile redirection

- ✓ Create RemoteApp & Desktop application groups
- ✓ Deploy Applications to the Remote App group
- ✓ Grant Test users access to WVD AppGroups
- ✓ Validate end user access and desktop/application functionality

In case of issues, deep troubleshooting to determine the root-cause and subsequent elimination of the problem

Benefits

Extended to Stakeholders

Superior Economics and Experience
Driven by Infrastructure, Licensing and Application Compatibility



For IT

Cost Efficiency

- **Multi-Session Support**
1:N mapping of Windows 10 OS license to users
- **Utilizing Existing Licenses**
Leveraging existing Windows 10 user licenses for virtual desktops
- **Avoid Exorbitant Extended Support Costs**
Windows 7 end of life in January 2020
- **Cost of Management Plane**
Available free of cost

Streamlined Control

- Data reside in public cloud and not in individual machines
- Centralized management



For End Users

Improved User Experience

- Application compatibility with Win 10 client OS
- Workplace Analytics
- Self-healing
- Persona aligned support
- Collective Intelligence Benchmarking

Empowered Users

- Supplemental Integrations for augmented capabilities
- Self Service Options
 - Cognitive Virtual Assistant – LUCY
 - Password Reset

Flexible Workspace

Secure workspaces that can be accessed from Any Device, Any Where, Any Time across user profiles

Automated Delivery

- Auto scale-up, scale down
- Rapid Provisioning

Solution **Considerations**

HCL Cloud Workspace **Criteria**

- A minimum of **40 monthly active users** (MAU) or production trial
- 500+ MAU for production rollout
- Pilot will be for **3 months**
 - Setup = 1 month
 - UAT = 2 months
- **WorkBlaze SaaS** will be leveraged for AIOps capabilities
- For every pilot in production environment, Microsoft will provide **\$30,000** cash incentive and **3,000 credits** for every Lighthouse Pilot customer
- Service Availability = **99.9%**

HCL

*Relationship*TM
BEYOND THE CONTRACT

9.3 BILLION USD | 1,43,000+ PEOPLE | 44 COUNTRIES



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