

## 1 Virtual Applications/Desktops and Desktop as a Service

### 1.1 Overview of Service

This service provides configuration, monitoring and management of the Virtual Applications and Virtual Desktop for the following deployment options:

- Client provided infrastructure (in Client's on-premises or colocation facility), NTT Anywhere Private Cloud or Public Cloud
- In conjunction with NTT's Managed Services Platform Private Cloud offerings, as Desktop as a Service (DaaS), inclusive of Private Cloud desktop infrastructure and options for NTT or Client provided desktop license(s)

This service description covers the management of the remote desktop component for persistent and/or nonpersistent users as stated in SOW and must be complemented with the managed services covering the activities of the underlying components. Managed Operating System and Managed Relational Database (MS SQL) must also be contracted.

### 1.2 Client Responsibilities

- Client must contract for End-user Integrated Operations Center (a.k.a End-user Service Desk) or provide level-1 support and troubleshooting for end-user community through Client's existing help desk
- Client must maintain active vendor licensing, maintenance and technical support agreement directly with NTT or third-party for the hosted application(s) and the underlying Virtual Desktop Solution and Operation System
- Client must delegate authority to NTT's engineers to contact the vendor of the hosted applications directly
- Client must provide a SME for the hosted application(s) to assist NTT with hosted application(s) troubleshooting and routine maintenance
- Client must provide application (In-House or 3<sup>rd</sup> party) patches to NTT
- Troubleshooting Local Printers and any other hardware peripherals such as scanners, insurance card readers, etc.
- Client must maintain current version of agents used for connectivity into the Virtual Application or Desktop Solution, except if NTT is managing local endpoints. e.g., Citrix Workspace, VMWare Horizon Client, etc.
- Client must be in possession of an active hardware service contract for the Client provided underlying infrastructure with NTT Uptime Support Services or OEM vendor(s)
- Client must provide all licensing, software, and use rights
- Any not explicitly listed as in scope the SOW

### 1.3 Service Specific Operations

#### (i) Monitors

In addition to the monitors for the underlying operating system or SQL server, the following are configured by default if available on the hardware and software:

Monitor	Description	Alert	Performance Info	Resolution and Analysis
<b>Terminal Services or RDS Active Sessions</b>	Number of users in the farm	Yes	Graphs for the number of users	Engineering Teams will attempt to diagnose, try to solve the issue and escalate to the Client with information regarding the evolution of the users connected
<b>XenApp: Login</b>	A dummy user attempts to connect to check if all the connection processes work	Yes	N/A	Engineering Teams will attempt to diagnose, try to solve the issue and escalate to the Client with information regarding the evolution of the users connected
<b>Service Processes: XenApp</b>	Existence of the following key service processes: <ul style="list-style-type: none"> <li>Citrix AD Identity Service</li> <li>Citrix Analytics</li> <li>Citrix Broker Service</li> <li>Citrix Configuration Logging Service</li> </ul>	Yes	N/A	Engineering Teams will attempt to diagnose, try to solve the issue and escalate to the Client with information regarding the evolution of the users connected

	<ul style="list-style-type: none"> <li>• Citrix Configuration Service</li> <li>• Citrix Delegated Administration Service</li> <li>• Citrix Diagnostic Facility COM Server</li> <li>• Citrix Environment Test Service</li> <li>• Citrix Host Service</li> <li>• Citrix Machine Creation Service</li> <li>• Citrix Monitor Service</li> <li>• Citrix Storefront Privileged Administration Service</li> <li>• Citrix Storefront Service</li> </ul>			
<b>Service Processes</b>	Existence of the key service processes to assure that the service works correctly	Yes	N/A	Engineering Teams will attempt to diagnose, try to solve the issue and escalate to the Client with information regarding the evolution of the users connected
<b>URL</b>	Download of a given URL (for Web interfaces or Secure Gateway)	Yes	Graphs for the response time of the URL	Engineering Teams will attempt to diagnose, try to solve the issue and escalate to the Client with information regarding the evolution of the users connected

Alerts related to elements not under NTT management will be escalated to the Client.

(b) Service Requests

In addition to requests associated with OS and SQL server management, the fulfillment of the following types of requests are included:

Task	Description
Application and user permissions associated to published resources	Implementation of Role Based Access Control used to provision access to published resources
Management of infrastructure/workload server components	Installation and updating of Citrix Virtual Apps and Desktops, or VMWare Horizon components that can only be installed or updated using Admin privileges
Citrix Virtual Apps and Desktops/VMWare Horizon: Management of Services	Enabling and disabling startup settings of system services at the request of the Client and configuring automatic restart for possible failures
Citrix Virtual Apps: Client application changes	Minor Application Version Upgrades (Java upgrades and other minor upgrades, that do not require dependency checking and vendor/client support) Major Application Version Upgrades are charged separately on a time and material basis and would require client provided runbook/software
Citrix Virtual Apps and Desktops, VMWare Horizon: policy settings	Changes to policy settings such as (drive and printer, clipboard redirection, etc.)
VMWare Horizon requests for Desktop pools	Create desktop pools Entitle groups to the desktop pools Prepare initial golden images (with Client provided runbook/software if application is not standard) for new desktop pools
Scheduled Tasks management	Creation and management of scheduled tasks, configuring the frequency, security environment and specific task to execute
License renewal process management	Management of the renewal of the license from the vendor if responsible

1.4 Supported Technologies

Only the following technologies are supported:

- (a) Virtualized Windows desktop 10 x64 (version 20H2) or later
- (b) Citrix Virtual Apps and Desktops Long Term Service Release (LTSR)
- (c) Citrix Virtual Apps and Desktops Current Release (CR)
- (d) Citrix Cloud
- (e) Citrix Application Delivery Controller (ADC)
- (f) VMware Horizon Enterprise Service Branch (ESB)

Note: Check support for recently released (last 6 months) operating systems, VDI and Internet browsers with your Service Delivery representative.

### 1.5 Supported Configurations

Only the following configurations are supported:

- (a) Citrix Virtual Apps and Desktops Site - Site consisting of the required Citrix Control Plane components, Workload Servers, Citrix Licensing and remote access via Citrix Application Delivery Controller (ADC) if necessary.
- (b) VMWare Horizon - Site consisting of required infrastructure components and associated workloads to provide a Virtual Desktop solution.

### 1.6 Not Supported

The following configurations are not supported:

- (a) All 32-bit VSS applications (requesters, providers, and writers) must run as native 32-bit or 64-bit applications. Running them under WoW64 (Windows 32-bit on Windows 64-bit) is not supported.
- (b) All others not explicitly listed in this Service Description

### 1.7 Supported Environments

The following environments are supported:

- (a) Client's on-premises or colocation facility
- (b) NTT or Client contracted Public Cloud
- (c) NTT Managed Private Cloud offering locations

### 1.8 Limitations

The following limitations apply:

- (a) Support contract with the vendor is required.
- (b) Tasks associated with the migration of an existing installation are not included in standard pricing for this service and must be contracted separately.
- (c) If the Client requires to publish applications that are non-standard, they must provide a runbook/software to configure the load balancing policy setup and its configuration parameters (printers, disks, mappings, etc.).
- (d) Support of End Of Life servers, underlying infrastructure and applications/middleware.

### 1.9 Tasks Included in the Standard Transition

As part of the Service, the following task is included in the setup fee for Virtual Apps and Desktop management:

- (a) For Citrix Virtual Apps and Desktop installations of the following tasks are included in the setup fee:
  - (i) Installation of services required by Citrix Virtual Apps and Desktops:
    - Remote Desktop Services
    - Remote Desktop Services License server. This server will include the required RDS CALS which must be supplied by the Client unless otherwise noted.
    - Microsoft SQL Server (for the Site, Reporting and Monitoring databases): Supported version of SQL Server Standard will be used unless otherwise noted.
    - Citrix licenses with active maintenance unless NTT is providing Citrix Service Provider Licensing.
    - If external remote access is required basic setup of Citrix ADC Gateway will be implemented and managed.
    - Installation and configuration of Citrix Site
    - Setup and creation of Machine Catalogs and Delivery Groups
    - Configuration of Citrix Policies

- (ii) Citrix Site setup and creation.
    - Installation and configuration of Virtual Delivery Agent (VDA) on Workload Servers and/or Virtual Desktops
    - Installation and configuration of Citrix StoreFront server(s)
    - Installation and configuration of Citrix Licensing
    - Installation and configuration of Citrix Director
    - Installation and configuration of SQL to host Citrix Site database.
    - Configuration AD Group Policies associated with Virtual Apps and Desktop infrastructure
  - (b) For Horizon View installations the following tasks are included in the setup fee:
    - (i) Installation of View components
    - (ii) Connection server
    - (iii) View Composer
    - (iv) HTML access
    - (v) Installation of the initial desktop for the desktop's pools needed
    - (vi) Optimizing initial desktop (golden image) installation for working in a VDI environment
  - (c) Tasks Included in the Takeover of an Existing Installation
- Only the following tasks are included with a takeover of a Client's systems:
- (i) Audit and discovery of current infrastructure including:
    - User Layer
    - Control Layer
    - Access Layer
    - Hosting Layer

#### 1.10 Tasks Not Included in the Standard Transition

The following tasks are not included in the standard transition:

- (a) Setup and configuration of any technology or third-party service not defined in SOW
- (b) Any task that hasn't been explicitly mentioned
- (c) Support of End Of Life servers, underlying infrastructure and applications/middleware
- (d) Any task requiring physical access