

**Carahsoft End-User Computing Solutions Services**

**Service Description**

**Horizon View Managed Services Gold Package**

**Managed Services Packages Options**

# of Desktops to be Managed	Desktop Type	Duration of Services	Not Included
50-100	Non-persistent	36 months	Horizon View licenses
101-250	Non-persistent	12 months	Horizon View licenses
101-250	Non-persistent	36 months	Horizon View licenses
251-500	Non-persistent	12 months	Horizon View licenses
251-500	Non-persistent	36 months	Horizon View licenses

**Note: Additional Virtual Desktops may be requested by the customer at any time. The charges for these additional desktops will be in accordance with the per-desktop, per-month fees established at the start of the engagement.**

**There is a one time set up fee for all Managed Service packages which is equal to one month of Managed Services cost. The set up is referenced in this document and is referred to as Service Transition.**

**Services Summary**

The Horizon View Managed Service Gold Package provides customers with an existing Horizon View environment with a complete turnkey virtual desktop management service. The provider will fully manage the virtual desktops and act as the liaison between the customer and the key stakeholders who manage the platform. One standard monthly patching of virtual desktops (patching per customer requirements) will be included. This approach to server and desktop management allows the customer to retain full authority of the environment.

In summary, the Horizon Air Managed Service Gold Package includes the highlighted services below:

	Bronze	Silver	Gold
Desktop pool creation and desktop deployment/ provisioning	✓	✓	✓
Desktop image creation and optimization	✓	✓	✓
Ongoing desktop administration and patching	✓	✓	✓
Microsoft Commercial off-the-shelf (COTS) application patching and administration at the revision and security levels	✓	✓	✓

	Bronze	Silver	Gold
Tier 3 incident resolution for Enterprise Center and desktop	✓	✓	✓
Proactive end-user monitoring and reporting to ensure optimal experience		✓	✓
Profile management and Active Directory integration		✓	✓
Anti-virus and anti-malware protection		✓	✓
Tier 3 incident resolution for end-user monitoring, anti-virus, and profile management issues		✓	✓
Proactive capacity management recommendations			✓
Incident management and reporting			✓
Tier 2 service desk escalation point for Customer end-user service desk personnel			✓

## Setup Phase

### Horizon View Optimization Assessment

The Horizon View Optimization delivers a best practice assessment of a customer’s existing VMware Horizon View deployment. The results will create a baseline and help the customer optimize the configuration for performance, scaling, and manageability of their VMware Horizon View environment based on specified business needs.

Some likely critical items identified in the Assessment

- Scalability of current environment
- VM vCPU to physical core ratio
- Overall CPU usage
- Storage
- Network calculation for PCoIP traffic

### Review of Assessment with Customer

The Assessment findings will be reviewed with the customer. Any items deemed critical will be remediated by the customer before moving forward into Managed Services. The provider will remediate the critical items at the customer’s direction on a T&M basis.

Should the customer choose not to remediate the critical items discovered in the assessment then the provider will not be able to transition the customer into Managed Services. Any costs incurred by the provider up to this point will be recouped and the engagement will be closed out.

**Review of Remediation**

The provider will review the remediated items with the customer. If the customer chooses to do the remediation themselves or through a 3<sup>rd</sup> party, then the provider will carry out another assessment on the environment to ensure that everything is compliant and ready for a transition to Managed Services.

**Transition to Managed Services**

**Managed Services – Operations and Maintenance Phase**

**Horizon View Administration**

The provider will utilize VMware’s View Administrator, provision new desktops, and manage desktops.

**Desktop and Application Patching**

This service includes one monthly routine patching and maintenance for security and bug fixes (not the feature enhancements normally associated with major version upgrades/releases by application vendor). The provider will utilize an advanced patching tool to support the patching of the customer’s environment.

*Legend:*

- **Coordinate:** Provider’s Service Desk will provide a central coordination function that helps ensure the patch/upgrade is tracked to resolution
- **Assist:** Provider will supply subject matter experts to assist customer personnel (or other vendors) in the execution of the patch/upgrade implementation using an automated patching tool
- **Execute:** Provider will coordinate the patching activities as well as conduct the necessary activities to ensure the patch/upgrade is implemented in the customer environment

Patching	Activity (all of the below are combined into 1 monthly patching activity)	Coordinate	Assist	Execute
Applications	One monthly patching of up to 5 applications on virtual desktops per customer requirements	Included	Included	Included
Image	One monthly patching of up to 2 Golden Images	Included	Included	Included

Patching	Activity (all of the below are combined into 1 monthly patching activity)	Coordinate	Assist	Execute
Desktop OS	One monthly patching of desktop operating systems per vendor recommendations with customer approval	Included	Included	Included
Horizon View Platform Security and Bug Fixes	One monthly security and bug fix patching of the Horizon View Platform	Included	Included	Included
Major Horizon View Platform Enhancements	Coordinate, evaluate and execute periodic feature enhancing releases.	Included	Included	Included

Note: Customer will allocate resources required for the deployment of an automated patching tool

### Advanced Persona Management

The provider will implement and maintain a persona management approach that provides for a focused, user-friendly virtual desktop end-user experience. In some cases, it is also necessary to manage and/or interface with the customer’s Active Directory.

The provider will use an Advanced Persona Management tool to provide a personalized profile management experience in the virtual desktop environment.

The provider will manage user profiles in the virtual desktop environment on an ongoing basis. Persona Management service is optimized for organizations that deploy a mix of application and desktop delivery modes.

Implementation will include assessment, discovery and persona management requirements, persona management tool installation, configuration and testing, migration planning, roll out, and documentation.

### Service Level Monitoring

The provider will monitor the environment usage to ensure that capacity related incidents are proactively fed to the Service Desk. An advanced monitoring tool will be deployed in the customer’s environment to ensure the level of monitoring quality. This approach ensures that the customer’s management is kept abreast of environment resource requirements and can make adjustments prior to them becoming an issue. The reports generated during Service Level Monitoring allow the provider and the customer to stay ahead of resource requirements.

### Managed Service Desk

The provider's ISO 20000 Service Desk delivers 24 x 7 x 365 customer support. For the term of this engagement, the provider will provide an ongoing Service Desk operation with ITIL certified technicians to respond to and support the customer’s Tier 2 and Tier 3 Service Desk incidents.

A Service Delivery Manager will be assigned to manage all activities provided by the Managed Services team. The Service Delivery Manager is the main liaison between the customer and the Managed Services Team. The Service Delivery Manager delivers value to the customer by:

- Enabling the provider to better meet the needs of the customer
- Ensuring alignment and integration of services
- Ensuring the achievement of business outcomes and delivery targets

ISO 20000 certified processes address a number of key process areas essential to operating a best in class service desk operation. These include Incident, Problem, Change, Service Level and Service Reporting process management.

Process	Description
<b>Incident Management</b>	<ul style="list-style-type: none"> <li>• Provide 24 x 7 Service Desk support</li> <li>• Proactive Monitoring</li> <li>• Full integration with EUX monitoring</li> <li>• Tier 2 Service Desk support</li> <li>• Planned and unplanned outage management</li> </ul>
<b>Problem Management</b>	<ul style="list-style-type: none"> <li>• Root cause analysis</li> <li>• Known error management</li> <li>• Communication Management</li> <li>• Engage vendors as needed</li> <li>• Major problem reviews</li> </ul>
<b>Change Management</b>	<ul style="list-style-type: none"> <li>• Publicize changes to users when changes may affect user-visible services (Forward Schedule of Changes)</li> <li>• Control changes to virtual environment</li> <li>• Manage change evaluation and testing</li> <li>• Manage releases of images, security and revision patches</li> <li>• Conduct Post Implementation Review</li> <li>• Establishment and management of Change Advisory Board</li> </ul>
<b>Service Reporting</b>	<ul style="list-style-type: none"> <li>• Monthly Report</li> <li>• Quarterly Review</li> <li>• Customer surveys</li> </ul>
<b>Service Level Management</b>	<ul style="list-style-type: none"> <li>• Based on SLRs specified in SLA</li> </ul>

Process	Description
	<ul style="list-style-type: none"> <li>Monitoring reports with expert analysis and recommendations</li> <li>Initiate and conduct regular service reviews coinciding with the service reporting reviews</li> </ul>

### Incident Reporting

Level of Incident	Incident Description
Tier 2	A disruption of service of the desktop environment that cannot be resolved by Tier 1
Tier 3	Tier 2 escalates to Tier 3 if Tier 2 cannot resolve the incident

### Sample SLA Usage Model

Event	Priority	Response SLA	Resolution SLA
Time to provision desktop	1	30 Minutes	8 Hours
Time to de-provision desktop	3	4 Hours	3 Days
Minor Desktop Application Issue	4	8 Hours	5 Days

### Sample SLA Definition

Priority Code	Description	Target Response Time	Target Resolution Time
1	Critical	30 Minutes	8 Hours
2	High	1 Hour	1 Day
3	Medium	4 Hours	3 Days
4	Low	8 Hours	5 Days
5	Very Low	16 Hours	5 Days+

### End User Monitoring and Reporting

During the term of the engagement, the provider will be responsible for proactive end-user experience monitoring and reporting. The objective of proactive monitoring is to spot issues that may cause service interruptions before a service is affected. The implementation of proactive monitoring leads to greater

reliability and increased service uptime. The customer can expect to realize a cost savings as fewer incidents and fewer service interruptions occur. The monitoring of the user environment will be handled using an advance monitoring tool.

The provider will publish Monthly and Quarterly Service Reports to the customer that report on SLA compliance and statistics for Incident, Problem, and Change Management related to service and end-user performance monitoring.

## Customer Responsibilities

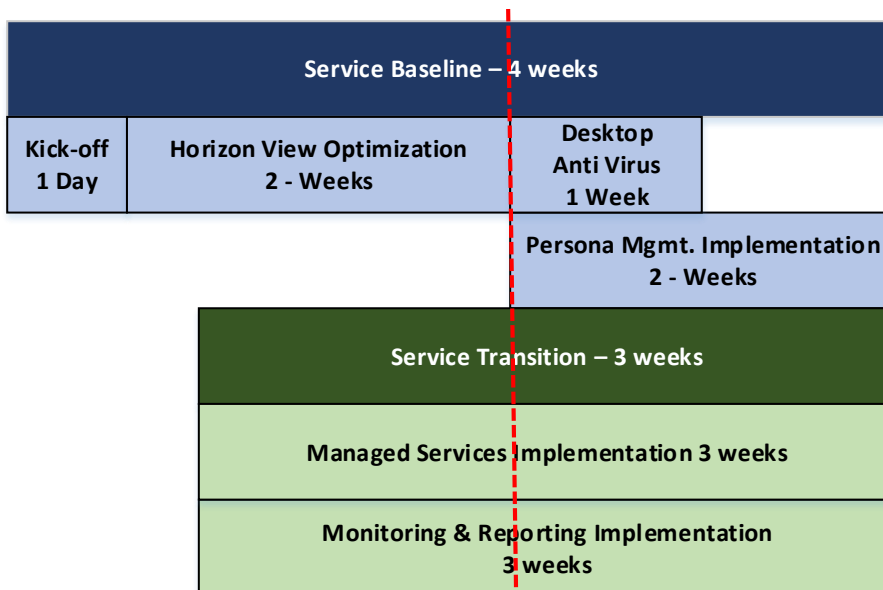
- Access to licensing media and keys required to build images and apply applications
- Provide access and accounts in the customers infrastructure (as needed)
- Timely access to information, facilities, networks, and systems necessary to perform the required activities
- Provide final requirements in a timely manner as required by the implementation schedule
- Access to computing resources and equipment including desktop, phone, hardware, and software systems needed by provider resources to fulfill their tasks
- Allocation of resources for the installation of monitoring, patching, and virus protection tools
- Adequate work space for Managed Services personnel at the customer offices when needed
- Physical and remote access to facilities as required for the provider project resources to perform the associated tasks
- Assume all risk associated with problem(s) resulting from the content, completeness, accuracy, and consistency of any data, materials, and information supplied by the customer
- Maintain all hardware and software agreements for the environment in order to ensure SLAs can be met by the providers as needed
- Management and remediation of applications
- Remediation of 'critical' items discovered in Optimization Assessment

## Provider Responsibilities

The schedule will be finalized after discussion and mutual agreement with the customer

Activity		Start	Duration
Service Baseline	Kick-off Meeting	Service Commencement	1 Day
	Horizon View Optimization	After Kick-off Meeting	2 Weeks
	Persona Management Implementation	After Horizon View Optimization	2 Weeks
	Desktop Anti-virus Implementation	After Horizon View Optimization	1 Week

Activity		Start	Duration
<b>Service Transition (also referred to as Set up)</b>	Managed Services Implementation	After Kick-off Meeting	3 Weeks
	Monitoring and Reporting Implementation	After Kick-off Meeting	3 Weeks
<b>Operations and Maintenance</b>	Horizon View Platform Administration and Desktop Patching	After Service Transition	Ongoing through the engagement
	Managed Service Desk	After Service Transition	Ongoing through the engagement
	End User Experience Monitoring and Reporting	After Service Transition	Ongoing through the engagement
	Persona Management	After Persona Management tool Implementation	Ongoing through the engagement
	Desktop Anti-virus Protection	After Service Transition	Ongoing through the engagement



\*\*Red dashed line indicates a potential break in activities if the Optimization Assessment reveals that critical remediation is needed in order to proceed with the transition to Managed Services.



## Milestones/Deliverables

Monthly and Quarterly reports indicating the number of desktops being managed under this service as well as the percentage increase in number of desktops compared to the previous month.

## Out of Scope

- Application server migration, installation, and usage instructions
- Required software licenses or required hardware
- Horizon View installation, configuration or upgrade
- Disaster Recovery failover support
- Virus and Malware remediation
- Support costs for application servers other than those needed to run the VDI
- Active Directory management and profile data file access
- Customized patching requirements
- Resolution of any current environmental issues such as networking, infrastructure problems and Active Directory
- Allocation of resources required for the creation of a test pool
- Any issues related to pre-existing profile management issues
- Creation and/or patching of additional desktop gold images beyond those included in the service
- Tier 1 Service Desk Support

## Assumptions

- Customer has an existing Horizon View environment
- All required Horizon View Licenses are purchased separately, as needed and identified on final quote
- There will be two desktop Golden Images and/or desktop pools (additional images may be purchased separately)
- All equipment and licenses will be onsite prior to implementation
- Customer already has a Tier 1 Support mechanism in place to handle Tier 1 incidents and triage of those incidents that would be escalated to the Tier 2 and Tier 3 Service Desk support provided by this contract
- No more than three customer representatives authorized to contact the Tier 2/3 service desk to report incidents and request resolution
- All network connections will be in place
- Additional resources required to accommodate additional monitoring tools

## Item(s) Provided

Standard Operating Procedures for all routine service desk and desktop provisioning activities

## Additional Terms and Conditions



Any sale of services will be subject to standard Terms and Conditions of Sale or a Services Agreement as negotiated between the parties.