SCHEDULE G: SERVICE DEFINITION FOR HYPER-CONVERGED INFRASTRUCTURE (HCI) SERVICE

1. HCI Service Description

Exponential-e's HCI Service provides virtualised hardware resources to the Customer allowing the Customer to create and configure their own Virtual Machines (VMs) via a portal. The HCI Service can be provided at Exponential-e's managed hosting racks within Exponential-e Data Centres or at Customer Sites. Exponential-e shall manage all hardware and underlying virtualisation technology required to provide the HCI Service and the portal to enable the Customer to manage and view the virtual resources. The Customer shall be responsible for the VMs and all software and applications within the VMs that may be used in connection with the HCI Service.

Service Components

The following components will be provided by Exponential-e:

- 10Gbps Dell Switching included where the HCI Service is provided at a Customer Site, to the extent set out on the Order Form.
- VxRail Appliances (either Extra Small, Small, Medium, Large, Extra Large as set out below and designated on the Order Form or as otherwise set out on the Order Form for bespoke sizings) providing both Compute via VMWare vSphere, and SSD storage via VMWare VSAN
- VMWare vSphere to host server infrastructures or Virtual Desktop Infrastructures including full VMWare and Windows Server Licensing in the quantity set out on the Order Form.
- Predefined access levels provided via Role Based Access Controls (IaaS) VMWare vCenter Policies, VMWare vCloud Director or Exponential-e's Cloud Management Platform.
- Management by Exponential-e (up to but excluding the Operating System) as per Appendix A to this Service Definition with integration to the Exponential-e Service Desk for support.
- Deployment by Exponential-e at the applicable Site.

HCI hardware is, and remains, Exponential-e Equipment.

Standard HCI Deployment Templates

The HCI Service is available in the following standard "T-Shirt" sizes:

Size	vCPU (Virtual Cores 4:1)	vRAM (GB 1:1)	vDisk (GB)
0 (Extra Small)	216 vCPU	691 GB vRAM	24 TB Effective All Flash Storage
1 (Small)	432 vCPU	691 GB vRAM	24 TB Effective All Flash Storage
2 (Medium)	576 vCPU	1843 GB vRAM	61 TB Effective All Flash Storage
3 (Large)	720 vCPU	2304 GB vRAM	64 TB Effective All Flash Storage
4 (Extra Large)	864 vCPU	2765 GB vRAM	82 TB Effective All Flash Storage

Deployment Specifics – Customer Responsibilities

Where the HCI Service is deployed outside the Exponential-e data centres, the Customer shall provide power, racking and a suitable environment (as per the Recommended Dry Bulb Temperature and Recommended Non-Condensing Humidity Range stated in the below ASHRAE guidelines) within the Site for the relevant HCI and shall ensure that the HCI at the Customer Site(s) are physically secured at all times.

ASHRAE 2008 Thermal Guidelines

Class	Dry Bulb Temperature (°C) Allowable	Dry Bulb Temperature (°C) Recommended	Humidity Range Non Condensing Allowable (%RH)	Humidity Range Non Condensing Recommended	Maximum Dew Point (°C)	Maximum Elevation (m)	Maximum Rate of Change (°C/h)	Dry Bulb Temperature (°C)	Relative Humidity (%)	Maximum Dew Point (°C)
		Product Operation						**Product Power Off**		
1	15 to 32	18 to 27	20 to 80	5.5°C DP to 60%RH and 15°C DP	17	3050	5/20	5 to 45	8 to 80	27
2	10 to 35	18 to 27	20 to 80	5.5°C DP to 60%RH and 15°C DP	21	3050	5/20	5 to 45	8 to 80	27
3	5 to 35	NA	8 to 80	NA	28	3050	NA	5 to 45	8 to 80	29
4	5 to 50	NA	8 to 80	NA	28	3050	NA	5 to 45	8 to 80	29

In addition, where the HCI is deployed at Customer Sites, the Customer shall:

- Provide adequate contiguous rack space for the HCI, inclusive of VxRails and VxRail switching;
- provide reasonable remote access for Exponential-e and VxRail remote management, through firewall policies where connectivity is via the internet or Exponential-e Core network;

The Customer will not be able to utilise the included switching for any purpose beyond VxRail connectivity to local area network.

Licensing

- By default, Exponential-e will provide VMWare vSphere & vSAN licensing for the HCI under the VMware Cloud Provider Program. Over contention of vRAM is not permitted. The Customer may bring their own VMWare vSphere & vSAN Licenses, subject to having the required licensor permissions in place.
- By default Exponential-e will provide Microsoft Windows Server Datacentre Edition Licenses under the Microsoft Service Provide License Agreement. The Customer may bring their own Windows Datacentre Licenses, subject to having the required licensor permissions in place.
- Guest Application Licensing is not included, unless specifically set out otherwise on the Order Form.
- The Customer may bring their own Microsoft Application Licenses where permitted by Microsoft licensing rules.

2. Target Service Commencement Date

HCI Service   28 Working Days*

From order acceptance. Lead-time is subject to confirmation if changes are made by the Customer and/or further information comes to light which would have affected the initial design.

3. HCI Service Level Agreement

Virtual Machine (VM) Availability

A VM is considered available if the VM is in "powered on" state with all required resources (vCPU, RAM & Storage) available to that VM.

Applies To	Target Availability
Each VM	99.9%

Service Credits

	Measure	Service Credit*
Availability	Below Target	5%
	>0.1 Below Target	10%
	>0.2 Below Target	20%

The Service Credit is applied as a percentage of the Monthly Charge for the VMs that are Unavailable (calculated on a pro-rata basis). Monthly Charge is the Annual Charge divided by 12.

APPENDIX A: HCI MANAGEMENT

Exponential-e will provide operational management for the elements forming the HCI Service. Exponential-e's responsibilities with respect to management of the HCI are as follows. The Customer is responsible for all management aspects other than those for which Exponential-e is responsible.

Aspect	Exponential-e Responsibilities
Capacity Planning	- HCI performance capacity monitoring and analysis - Collect and aggregate OS performance data from automated monitors as it relates to the HCI Service - Provide reports on this collected data on a monthly basis - Recommend and dialog with the Customer to enact environment changes, including the addition of additional HCI nodes - Discuss possible remediation options with the Customer to address capacity bottlenecks
Documentation	- Maintain solution design documentation for the HCI. - Maintain solution configuration documentation for the HCI. - Implement and maintain version control for all documentation.
Licensing	- Exponential-e is responsible for licensing and licensing maintenance under this Contract to cover: - In scope Microsoft Datacenter Edition licenses - In scope VMWare vSphere and vSAN
Monitoring	Monitor and alert on the HCI
Patch & Firmware Management	- Updating the HCI manually or via an alternate management platform, at Exponential-e's discretion - Review and test critical VMWare and Dell/EMC updates - Install critical and security updates onto the HCI - Install non-critical updates onto the HCI - Notify the Customer of proposed updates to the HCI - Carry out software patches to the HCI - Configure the HCI for manual update installation by the Service Desk
Proactive Remediation	- Investigate the cause of issues generated through the monitoring and alerting toolsets, or reported by the Customer - Communicate recommended remediation activities to the Customer and request approval from the Customer for carrying out remediation activities - Provide proactive remediation of issues as agreed with the Customer