

SCHEDULE O: SERVICE DEFINITION FOR AZURE LOCAL SERVICE

1. Azure Local Service Description

Exponential-e’s Azure Local Service provides a virtualised hardware resource platform to the Customer allowing the Customer to create and configure their own virtual machines (VMs) and/or other supported Azure services within the platform via the Azure Portal or Windows Admin Centre. The Azure Local Service is provided in the form of one or more Clusters (as defined below). The Azure Local Service can be provided at Exponential-e’s managed hosting racks within Exponential-e Data Centres or at Customer Sites. For the avoidance of doubt, the Azure Local Service does not include the provision of any resources or services within the Microsoft Azure cloud platform. Exponential-e shall manage all hardware and underlying virtualisation technology required to provide the Azure Local Service to enable the Customer to consume resources on the platform. The Customer shall be responsible for the virtual machines and/or other supported Azure services deployed on the platform.

Service Components

The following components will be provided by Exponential-e:

- 10 or 25Gbps Top of Rack Switches as specified for the solution, to the extent set out on the Order Form.
- 1GbE Management Switch(es) as specified for the solution, to the extent set out on the Order Form.
- HCI Nodes as set out on the Order Form providing both Processor and Memory via Azure Stack OS, and SSD storage via Storage Spaces Direct (S2D)
- SFPs as set out on the Order Form.
- Management by Exponential-e (up to and including the Azure Stack OS layer) 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.

Azure Local hardware is, and remains, Exponential-e Equipment.

The Azure Local Service is provided on a usable capable basis covering the following elements:

- CPU GHz – the aggregate usable GHz. The amount provided will be set out on the Order Form.
- RAM GB – the aggregate usable RAM. The amount provided will be set out on the Order Form.
- Disk Storage GB – the aggregate usable disk capacity. The amount provided will be set out on the Order Form.
- Optionally: Physical GPU capacity specified according to the underlying GPU card(s) fitted. The amount provided will be set out on the Order Form.

It should be noted that usable capacity is calculated for virtual machine workloads. The deployment of other services (such as, but not limited to, Azure PaaS Services, Azure SDN and Azure Kubernetes Service containerised applications) will reduce the usable capacity for virtual machines.

Deployment Specifics – Customer Responsibilities

Where the Azure Local Service is deployed outside 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 listed below) within the Site for the relevant Class as identified on the Order Form and shall ensure that the Azure Local hardware at the Customer Site(s) are physically secured at all times.

ASHRAE 2008 Thermal Guidelines

Class	Equipment Environment Specifications									
	Product Operation							Product Power Off		
	Dry Bulb Temperature (°C)		Humidity Range Non Condensing		Maximum Dew Point (°C)	Maximum Elevation (m)	Maximum Rate of Change (°C/h)	Dry Bulb Temperature (°C)	Relative Humidity (%)	Maximum Dew Point (°C)
	Allowable	Recommended	Allowable (%RH)	Recommended						
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 Azure Local Service is deployed at Customer Site(s), the Customer shall:

- Provide adequate contiguous rack space for the HCI Nodes, Management Switch(es) and Top of Rack Switch(es);
- Provide reasonable remote access for Exponential-e through firewall policies where connectivity is via the Internet or Exponential-e Core network; and
- Provide outbound Internet access to the solution to enable reporting of consumption to the Azure Portal.

The Customer will not be able to utilise the included switching for any purpose beyond the Azure Local Service connectivity to local area network via specified uplinks.

Licensing

By default, licensing will be provided by the Customer, and this may optionally be procured through Exponential-e’s Microsoft CSP programme.

2. Target Service Commencement Date

Azure Local 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. Azure Local Service Level Agreement

Azure Local Cluster Availability

An Azure Local Cluster (as defined below) is considered available if the Cluster can be managed by the Party responsible for management from either the Azure Portal or Windows Admin Centre excluding any issues with Internet connectivity.

Applies To	Target Availability
Each Cluster	99.9%

A Cluster is a group of interconnected HCI Nodes, switches and SFPs managed as a single logical unit within the Azure Local platform.

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 Clusters that are Unavailable. Monthly Charge is the Annual Charge for Azure Local Implementation and Management divided by 12.*

APPENDIX A: AZURE LOCAL SERVICE MANAGEMENT

Exponential-e will provide operational management for the elements forming the Azure Local Service. Exponential-e’s responsibilities with respect to management of the Azure Local Service 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	<ul style="list-style-type: none"> • Azure Local Cluster performance capacity monitoring and analysis • Collect and aggregate OS performance data from automated monitors as it relates to the Azure Local Service • Provide reports on this collected data on a monthly basis • Recommend and dialog with the Customer to enact environment changes, including any updates to the Cluster. • Discuss possible remediation options with the Customer to address capacity bottlenecks
Documentation	<ul style="list-style-type: none"> • Maintain solution design documentation for the Azure Local Service. • Maintain solution configuration documentation for the Azure Local Service. • Implement and maintain version control for all documentation.
Monitoring	<ul style="list-style-type: none"> • Monitor and alert on the Azure Local Service
Patch & Firmware Management	<ul style="list-style-type: none"> • Updating the Azure Local Service manually or via an alternate management platform, at Exponential-e’s discretion • Review and test critical Microsoft and Dell updates • Install critical and security updates onto the Azure Local Service • Install non-critical updates onto the Azure Local Service • Notify the Customer of proposed updates to the Azure Local Service • Carry out software patches to the Azure Local Service • Configure the Azure Local Service for manual update installation by the Service Desk
Proactive Remediation	<ul style="list-style-type: none"> • 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