

UBUNTU ADVANTAGE SERVICE DESCRIPTION

1 Overview

This service description defines the Services Canonical will provide to the customer under the customer's agreement with Canonical. This service description defines the following products, but only those products listed in Customer's agreement with Canonical will be provided: Ubuntu Advantage Standard Desktop, Ubuntu Advantage Advanced Desktop, Ubuntu Advantage Essential Server, Ubuntu Advantage Standard Server, Ubuntu Advantage Advanced Server, Ubuntu Advantage Virtual Guest Standard, Ubuntu Advantage Virtual Guest Advanced, Ubuntu Advantage Cloud Guest, Ubuntu Advantage Cloud Guest 24x7, OpenStack Cloud Availability Zone, OpenStack Cloud Availability Zone - Advanced 24x7 Guest Support Upgrade, Landscape, Landscape Dedicated Server, Landscape Agent, Ubuntu Advantage Ceph Storage Standard, Ubuntu Advantage Ceph Storage Advanced, Ubuntu Advantage Swift Storage Standard, Ubuntu Advantage Swift Storage Advanced, Ubuntu Advantage Technical Account Manager, Ubuntu Advantage Dedicated Services Engineer, Ubuntu Advantage Training, Ubuntu OpenStack Jumpstart Training, and OpenStack Continuous Integration Implementation.

2 Service initiation

2.1 Upon commencement of the services, Canonical will provide a single set of login credentials to the customer to access Canonical's systems management service, support web portal to submit support cases, and on-line knowledge base.

2.2 Canonical service personnel will interface with the customer's technical contacts with respect to the technical support elements of the services. The customer may appoint up to the number of contacts corresponding to the highest services product Customer has purchased, in accordance with the table below:

Table of number of technical contacts

Ubuntu Advantage Subscription levels	Technical contacts
Essential	1
Standard	2
Advanced	3

2.3 Customer may change the specific technical contacts at any time by written request.

3 Landscape

3.1 Landscape is a service to manage and monitor Ubuntu systems. Canonical will include its Landscape for each physical system covered by an Ubuntu Advantage subscription, as well as for each virtual system covered by the Ubuntu Advantage Virtual Guest service or Ubuntu Advantage Cloud Guest service. The customer may register the customer's systems with Canonical's Landscape service and use the service to manage and monitor those systems.

4 Knowledge base access

4.1 Canonical will make its knowledge base of support issues and resolutions available to the customer during the term of service.

5 Support

Canonical will provide the following support for the specific customer systems for which the customer purchases the services:

5.1 Canonical will provide installation, configuration, maintenance and management support for any standard version of Ubuntu which is within its life-cycle on the customer's systems.

5.2 Canonical will provide a reasonable level of assistance to the customer to install Ubuntu on the customer's systems built from an officially supported computer architecture. Canonical is not able to guarantee that Ubuntu can be installed on all customer hardware. Canonical is able to provide a higher level of effort with hardware issues that take place on machines that have been specified by Canonical as "certified" systems.

5.3 Canonical will support the installation, applications and system administration of Ubuntu as described in the appendices to this service description.

5.4 The Ubuntu distribution is a collection of many elements of open source software. Canonical may not be able to resolve all issues, even on packages that are supported. For any supported application, Canonical will attempt to provide a workaround or a full resolution. Canonical does not guarantee a resolution or resolution time.

5.5 The services apply only to packages found in the Ubuntu Main repository and Canonical-owned package in the Universe repository, except as otherwise noted below. Canonical will not provide support for any packages that have been modified outside of the Ubuntu archives.

5.6 Information on supported kernel versions can be found at: <https://wiki.ubuntu.com/Kernel/LTSEnablementStack>

6 Submitting support requests

6.1 The customer may submit support requests ("cases") through Canonical's support web portal or by contacting the support team by telephone.

6.2 Canonical will keep a record of each case within the support web portal to enable the customer to see all current cases, enter new cases, review historical cases and edit or respond to current cases. The customer may configure the support web portal to send email notifications to the customer when a case is updated.

6.3 All cases are assigned a ticket number and responded to automatically. All correspondence and telephone calls are logged with a time-stamp for quality assurance.

6.4 Severity Level 1 and Level 2 issues must be reported by telephone. When reporting a case the customer must specify how the issue is affecting their use of Ubuntu. The customer must provide all information requested by Canonical to resolve the case.

6.5 There is no limit to the number of cases customer may submit for the customer's systems for which the services are purchased. A single support case consists of a discrete problem, issue or request although it may consist of a number of interactions with Canonical's support engineers.

7 Support severity levels

7.1 Upon receipt of a case report, a Canonical support engineer will commence efforts to verify the case and set the severity level. Canonical will work with the customer to assess the urgency of a case and to assign the appropriate severity level.

7.2 Canonical support engineer will respond as soon as practicable to the customer after setting the severity level and within the response time for the applicable severity level listed below.

7.3 Canonical's support engineer will work on diagnosing and resolving the case during the effort period for the applicable severity level listed below.

7.4 The tables below show the methods for reporting cases, the level of response from Canonical to the case report and the effort period that will be used to resolve the case.

Server and Cloud Availability Zone response levels table

Severity Level	Effort Period	Response method	Essential Response Time	Standard Response Time	Advanced Response Time
Level 1	Continuous effort	Phone	4 business hours	2 business hours	1 hour
Level 2	Local business hours	Phone	1 business day	4 business hours	4 hours
Level 3	Local business hours	Online or phone	2 business days	1 business day	4 hours
Level 4	Local business hours	Online or phone	4 business days	2 business days	1 business day

Desktop response levels table

Severity Level	Effort Period	Response method	Standard Response Time	Advanced Response Time
Level 1	Continuous effort	Phone	2 business days	4 business hours
Level 2	Local business hours	Phone	2 business days	1 business day
Level 3	Local business hours	Online or phone	2 business days	2 business days

8 Support response definitions

8.1 When setting the severity level, Canonical's support team will use the definitions, and carry out operational procedures as stated in the table below.

Response definitions table

Severity	Definition	Responsibilities
Level 1	Core functionality not available.	Canonical will use continuous effort, through appropriate support engineer(s) and/or development engineer(s), to produce a work-around. As soon as core functionality is available, the severity level will be lowered to level 3.
Level 2	Core functionality severely degraded.	Canonical will use reasonable efforts during coverage hours to produce a work-around. The support engineer will aim to produce a work-around that is sufficient to adjust the priority level to level 3.
Level 3	Standard support request.	Canonical will use reasonable efforts during the coverage hours to provide the customer with a work-around as soon as possible balanced against higher severity level cases. After providing a work-around, Canonical's support engineers will work on developing a permanent resolution to the case.
Level 4	Non-urgent issues, including cosmetic issues, feature requests or information requests.	Canonical will review cosmetic issues and feature requests to determine whether it is a product enhancement for a future release. Canonical will review and respond to information requests with a reasonable level of effort during coverage hours.

9 Support coverage hours, languages

9.1 Canonical will provide support during the following coverage hours:

Hours of coverage table

Ubuntu Advantage Subscription	Hours	Days of coverage
Standard Desktop	Customer's selection - see next table	Monday - Friday
Advanced Desktop	Customer's selection - see next table	Monday - Friday
Essential Server	Customer's selection - see next table	Monday - Friday
Standard Server	Customer's selection - see next table	Monday - Friday
Advanced Server	24 hours a day	Monday - Sunday
Cloud Availability Zone	24 hours a day	Monday - Sunday
Landscape Dedicated Server	24 hours a day	Monday - Sunday

9.2 The customer must select the time-zone for their coverage from those detailed below. Hours of coverage will be adjusted in accordance with locale-specific daylight saving alterations. Coverage hours exclude public holidays in the customer's location.

Local business hours table

	North America	UK & Central Europe	Eastern Europe, Middle East	Asia Pacific
Local Hours	09:00 – 21:00 EST	08:00 – 17:00 GMT 09:00 – 18:00 CET	10:00 – 17:00 MSK 09:00 – 17:00 EET	09:00 – 18:00 CST
UTC Equivalent	12:00 – 05:00	08:00 – 17:00	06:00 – 15:00	01:00 – 10:00

9.3 Customer support will be provided in one of the following languages: English, French, or Chinese Mandarin.

10 Escalation

10.1 In the event that the customer receives unsatisfactory service or wishes to escalate a case for urgent action, the customer can escalate as follows:

Escalation contact table

Escalation level	Contact
Level 3	Support and Services Team +1 514 940 8895
Level 2	Support manager support-manager@canonical.com +1 514 940 8910
Level 1	Operations director operations-director@canonical.com

11 Assurance

11.1 The customer is entitled to participate in the Ubuntu Assurance Programme subject to its terms and conditions. Canonical may update the Assurance Programme and its terms on one or more occasions. The current Ubuntu Assurance Programme and its terms are available at <http://www.canonical.com/enterprise-services/ubuntu-advantage/assurance>.

12 Virtual Guest

12.1 Virtual Guest Standard consists of the Standard Server services for the number of virtual guests purchased for virtual machines deployed with hypervisors not covered by other Ubuntu Advantage services.

12.2 Virtual Guest Advanced consists of the Advanced Server services for the number of virtual guests purchased for virtual machines deployed with hypervisors not covered by other Ubuntu Advantage services.

13 Cloud Guest

13.1 Cloud Guest consists of the Standard Server services for all Ubuntu instances in the customer's public cloud account.

13.2 Cloud Guest 24x7 consists of the Advanced Server services for all Ubuntu instances in the customer's public cloud account.

14 OpenStack Cloud Availability Zone

14.1 If the customer purchases the Cloud Availability Zone service, Canonical will provide:

14.1.1 For up to the number of cloud infrastructure nodes specified in the table below, plus any single node add-ons:

- 24x7 support for the Ubuntu Server components required to host an OpenStack cloud at the response and effort levels specified for the Ubuntu Advantage Server Advanced offering
- Landscape management agents
- Support for up to 64 TB of non-production, proof of concept Ceph or Swift storage at the response and effort levels specified for the Ubuntu Advantage Server Standard offering for up to 30 days

Table of Cloud Availability Zone node number

Cloud Availability Zone size	Number of nodes
Proof of Concept / PoC	Up to 20
Small	Up to 100
Medium	Up to 500
Large	More than 500

14.1.2 For an unlimited number of guests hosted on the infrastructure supported by the Cloud Availability Zone services: Ubuntu Advantage Server Standard (but not including Landscape management).

14.2 If the customer purchases the Cloud Availability Zone - Advanced 24x7 Guest Support Upgrade, Canonical will provide the Ubuntu Advantage Server Advanced service (but not including Landscape management) for an unlimited number of guests hosted on the infrastructure supported by the Cloud Availability Zone services.

15 Ubuntu Advantage Ceph Storage and Ubuntu Advantage Swift Storage

15.1 If the customer purchases the Ceph or Swift Storage Standard or the Ceph or Swift Storage Advanced service, Canonical will provide support for a filesystem instance storing up to the specified capacity of data. Capacity refers to actual used capacity rather than to available, unallocated storage space.

15.2 The service includes support for all the servers that the customer dedicated to host the distributed filesystem at the chosen redundancy level. The service does not support running any additional workloads on such storage dedicated servers.

15.3 Support hours for Storage Standard and Storage Advanced match those of the Ubuntu Advantage Standard Server and Ubuntu Advantage Advanced Server respectively.

16 Additional services

16.1 Technical Account Manager

If the customer purchases the Technical Account Manager ("TAM") service, Canonical will provide enhanced support by providing a named contact who personally collaborates with the customer's IT staff.

16.1.1 The TAM will provide installation, configuration, maintenance and management support for Ubuntu on the

customer's systems covered by the applicable Ubuntu Advantage services.

16.1.2 The TAM will provide the services described below for up to 10 hours per week during the term of service. The customer may contact the TAM during applicable business hours.

16.1.3 The TAM will take part in regular review calls of the customer's operational issues on a mutually agreed bi-weekly schedule.

16.1.4 The TAM will visit the customer annually for on-site technical reviews.

16.1.5 the TAM will organise multi-vendor issue coordination through TSANet or Canonical's direct partnerships where applicable. As soon as the root cause is identified, the vendor for that sub-system will take over responsibility and work to resolve the case through their normal support process.

TAM response levels table

Severity Level	Effort Period	Response Method	Response Time
Level 1	Business day	Phone	1 hour
Level 2	Business day	Phone	4 hours
Level 3	Business day	Online or phone	4 hours

16.1.6 Canonical will undertake a quarterly service review meeting with the customer to assess service performance and determine areas of improvement.

16.2 Dedicated Services Engineer

If the customer purchases the Dedicated Services Engineer ("DSE") service, Canonical will provide enhanced support and on-site expertise by embedding a full time employee in the customer's IT staff.

16.2.1 Canonical will assign a Dedicated Services Engineer on-site at the customer's place of business.

16.2.2 The DSE will be available to the customer full time during local business hours.

16.2.3 The DSE will act as the primary point of contact for all support issues, as well as providing Ubuntu Server and OpenStack expertise to the customer.

16.2.4 The DSE will coordinate Ubuntu Advantage support at all the customer's sites.

The DSE will manage support escalations and issue prioritization in accordance with Canonical's standard support response definitions.

16.3 Ubuntu Advantage Training

16.3.1 If the customer purchases the Ubuntu Advantage - Training service, Canonical will provide 5 days of training on the specified subject matter at a mutually agreed site and time. The training will be limited to the curriculum specified in applicable documentation.

16.4 Ubuntu OpenStack Jumpstart Training

16.4.1 If the customer purchases the Ubuntu OpenStack - Jumpstart Training service, Canonical will provide 2 days of hands-on training at a mutually agreed site and time. The training will be limited to the curriculum specified in applicable documentation. Canonical will deliver and use the "Orange Box" environment as hardware infrastructure to provide the training. The customer may retain possession of the Orange Box for a period of 2 weeks (or a longer period if specified on the applicable order) after the provision of the training. At the end of this period, Canonical will provide a half-day workshop to discuss results, answer follow-on questions, and retrieve the Orange Box. The customer is responsible for returning the Orange Box hardware in its original state to Canonical at the end of the agreed period.

16.5 OpenStack Continuous Integration Implementation

If the customer purchases the OpenStack Continuous Integration Implementation service, Canonical will provide a dedicated, private, hosted build and test environment infrastructure for customer developed OpenStack patches.

16.5.1 The test environment consists of a set of services running in Canonical's production cloud: a continuous integration testing suite, including a code revision system, a versioned code repository,

and a trunk gating system.

- 16.5.2 Canonical will provide documentation on the test environment's operation in the form of a user guide. Correct operation of the environment requires strict adherence to the documentation guidelines. Patches submitted to the environment must comply with Canonical-provided technical guidelines.
- 16.5.3 Canonical will assign a named project manager to coordinate the continuous integration process. The project manager will provide up to 1 week of patch analysis assistance and a workshop (to be delivered remotely at a mutually agreeable time) encompassing use of the continuous integration service and associated technologies.
- 16.5.4 Canonical will use commercially reasonable efforts to maintain the continuous availability of the test environment infrastructure.
- 16.5.5 Canonical will complete the testing of any properly submitted patch within 24 hours. The response times and efforts levels for support requests match those of the Ubuntu Advantage Server Advanced offering.

16.6 Landscape Dedicated Server

- 16.6.1 Landscape Dedicated Server subscriptions provide the customer with the Landscape Dedicated Server software for the customer's installation and use on the customer network. Canonical will provide support for the Landscape Dedicated Server software at the response levels, severity definitions, and service hours matching those of Ubuntu Advantage Server Advanced.
- 16.6.2 Ubuntu Advantage services include Canonical's Landscape service for each physical system covered by an Ubuntu Advantage subscription, as well as for each virtual system covered by the Ubuntu Advantage Virtual Guest service. If the customer purchases Landscape Dedicated Server, the customer may register those customer systems with the Landscape Dedicated Server and use the service to manage and monitor those systems.
- 16.6.3 The customer will be required to provide their own server hardware in order to run the Landscape Dedicated Server software on the customer's premises. Canonical will provide the customer with recommendations for the hardware specifications and minimum requirements to run the Landscape Dedicated Server.

16.7 Landscape Agent

- 16.7.1 On systems covered by the Ubuntu Advantage Server service, the customer may use the Landscape service to manage and monitor virtual machines for which the customer purchases the Landscape Agent service.

Appendix 1 – Server support scope details

Installation

This covers all the aspects involved with installing and configuring Ubuntu Server, as well as the hosted Landscape service.

Server installation scope	Description	Essential	Standard	Advanced
CD installation	<ul style="list-style-type: none"> Install Ubuntu from a CDROM or USB drive 	Yes	Yes	Yes
Disk/Volume Management	<ul style="list-style-type: none"> Set-up RAID and LVM during installation Assistance recovering Debug and troubleshooting RAID issues 	Yes	Yes	Yes
Hardware set-up	<ul style="list-style-type: none"> Assessing hardware compatibility with Ubuntu Choosing the 32 or 64 bit versions of Ubuntu Configuring Ubuntu to use appropriate hardware Optimising Ubuntu with certified or compatible hardware Configuration of compatible peripherals 	Yes	Yes	Yes
Landscape installation	<ul style="list-style-type: none"> Installing Landscape service and set-up Assistance registering systems on the Landscape service Troubleshooting Landscape client or service problems 	Yes	Yes	Yes
Networking	<ul style="list-style-type: none"> Setting up wireless or wired network Configuring dynamic or static network configuration Setting up proxy settings in applications Setting up interface aliases 	Yes	Yes	Yes
Package and task selection	<ul style="list-style-type: none"> Recommendation on the specific packages to install for a particular use Recommendation on the specific task selection 	Yes	Yes	Yes
Network and automated	<ul style="list-style-type: none"> Install Ubuntu using a local NFS server Install Ubuntu using a local FTP server 	No	Yes	Yes
Windows Integration	<ul style="list-style-type: none"> Support integration with Microsoft file/print and authentication environments such as Active Directory and Windows NT 	No	Yes	Yes

Applications

This covers the various server configurations and included programs that are supported.

Server applications scope	Description	Essential	Standard	Advanced
Certified applications	<ul style="list-style-type: none"> Installation applications distributed through the Partner repository Debugging issues that are caused by Ubuntu <p>Note: The customer must have a valid support contract with the certified application's vendor for complex debugging</p>	Yes	Yes	Yes
FTP server	<ul style="list-style-type: none"> Installing and configuring FTP server Enabling anonymous access and group permissions Configuring security for the service Optimising the server for performance Debugging and resolving issues that arise 	Yes	Yes	Yes
File sharing	<ul style="list-style-type: none"> Installing file sharing for Windows machines (Samba) or Linux machines (NFS) Help configuring the file sharing service for users and groups Setting up Ubuntu Server to authorise from a Windows Network Assistance setting up entitled desktops to access the file sharing server Troubleshooting and resolving file sharing issues 	Yes	Yes	Yes
LAMP	<ul style="list-style-type: none"> Basic LAMP application support: Linux, Apache, MySQL PHP/Perl/Python 	Yes	Yes	Yes
Mail server	<ul style="list-style-type: none"> Installation and configuration of mail server Assistance with anti-spam and anti-virus configuration Setting up client security with SSL/TLS Troubleshooting and resolving mail server issues 	Yes	Yes	Yes
Network services	<ul style="list-style-type: none"> Installation and configuration of the DHCP, DNS, and NTP to provide network services Advanced set-up of DHCP options such as fixed IP addresses Advanced set-ups using bonding, network file system Advice on integration with internal name services Troubleshooting issues with the servers 	Yes	Yes	Yes
Web server	<ul style="list-style-type: none"> Assistance configuring Apache for site requirements Installation of modules to support dynamic sites such as Perl and PHP Assistance with logging and tuning Apache performance Debugging and resolving issues with the Web Server 	Yes	Yes	Yes

Server applications scope	Description	Essential	Standard	Advanced
X Terminal server	<ul style="list-style-type: none"> • Configuration of the server to perform terminal services • Configuration of local client machines to use remote X server • Configuration of local client machines to provide sound • Configuring appropriate security for the environment 	Yes	Yes	Yes
Advanced Networking	<ul style="list-style-type: none"> • Configure VPN servers using Ubuntu • Assistance with using network bonding for load-balancing or fail-over protection • Run routing protocols on Ubuntu 	No	Yes	Yes
Database	<ul style="list-style-type: none"> • Installing Postgres database server • Setting-up databases and basic optimising the servers performance • Assistance securing the database server with access security • Assistance setting up backup and restore procedures for Databases • Debugging and solving problems with the database server 	No	Yes	Yes
Enterprise Java	<ul style="list-style-type: none"> • Installing and configuring Tomcat and Tomcat applications 	No	Yes	Yes
Virtualisation	<ul style="list-style-type: none"> • Installing KVM virtualisation and configuring host system • Installing and setting up supported guest operating systems • Assistance with advanced configuration such as networking • Troubleshooting and resolving virtualisation issues 	No	Yes	Yes
Directory serving and Authentication using OpenLDAP and Kerberos	<ul style="list-style-type: none"> • Installation of OpenLDAP directory server • Installation and use of OpenLDAP with Kerberos (optionally) to create a user management solution • Assistance integrating the Directory with other services • Debugging and solving problems with the service • Configuration of the Kerberos server to provide SSO • Assistance setting up policies and services to use Kerberos • Advice on setting up a reliable and distributed Kerberos system • Troubleshooting and resolving issues with Kerberos 	No	No	Yes

System administration

System administration covers the general configuration, management and maintenance activities. The major categories of support covered are set out below:

Server system administration scope	Description	Essential	Standard	Advanced
Basic Backup	<ul style="list-style-type: none"> • Installation of an appropriate backup application • Assistance configuring and deploying backup system • Help restoring from back-ups previously taken • Troubleshooting and resolving backup or restore problems 	Yes	Yes	Yes
Cryptography	<ul style="list-style-type: none"> • Assistance with the use of open source software (gnutls, gnupg) for a complete suite of cryptographic and certificate services tools; cryptography, secure communications and digital certificates. 	Yes	Yes	Yes
Firewall	<ul style="list-style-type: none"> • Installing the appropriate fire-walling application and kernel support • Assistance configuring the firewall to protect and alert against intrusion • Configuring the firewall to provide masquerading for a private server service 	Yes	Yes	Yes
Hardware management	<ul style="list-style-type: none"> • Configuration of Certified and Compatible systems, devices and peripherals • Removing configured hardware and reconfiguring Ubuntu • Optimising Ubuntu performance with specific hardware • Debugging and resolving hardware issues 	Yes	Yes	Yes
Kernel support	<ul style="list-style-type: none"> • Advice on installing the right Ubuntu kernel • Kernel module installation, configuration and optimisation • Kernel debugging and issue resolution 	Yes	Yes	Yes
Landscape	<ul style="list-style-type: none"> • Guidance on using the Landscape service for systems administration • Help using the Landscape service to manage security and bug-fix updates • Installing and configuring automated updates 	Yes	Yes	Yes

Server system administration scope	Description	Essential	Standard	Advanced
Network printing	<ul style="list-style-type: none"> • Making a local printer available on the network • Configuring networking printing options • Configuring entitled systems to print using the network printer • Optimising network printing and resolving issues 	Yes	Yes	Yes
Server networking	<ul style="list-style-type: none"> • Network card detection and installation • Driver and security configuration for wireless networks • Configuring dynamic and static network settings • Advanced configuration such as IP routing and aliasing • Setting up the server to act as an Internet gateway 	Yes	Yes	Yes
System updates & upgrades	<ul style="list-style-type: none"> • Assistance installing security or critical fix updates • Help planning and undertaking upgrades between Ubuntu releases • Troubleshooting and resolving update problems 	Yes	Yes	Yes
Using package tools	<ul style="list-style-type: none"> • Assistance using Ubuntu packaging tools 	Yes	Yes	Yes
Logging and monitoring	<ul style="list-style-type: none"> • Setting up system logging and monitoring tools: Nagios and Munin • Advanced logging configuration such as remote logging and specialised alerting • Managing system logging and monitoring with appropriate tools 	No	Yes	Yes
Network Backup	<ul style="list-style-type: none"> • Installation and configuration of Bacula Server(s) • Configuring Bacula to perform automatic network backups/restores 	No	Yes	Yes

Server system administration scope	Description	Essential	Standard	Advanced
Server security	<ul style="list-style-type: none"> • Assistance configuring the server in a secure fashion • Help configuring and setting up group permissions and password policies • Assistance using security tools, for example host vulnerability checking • Assistance using AppArmor to partition applications and services from each other • Advice on checking for compromise and recovering from a security breach 	No	Yes	Yes
Advanced Systems Management	<ul style="list-style-type: none"> • Configuration Management tools: puppet and etckeeper • Use of remote management capabilities (IPMI) where machines have that capability 	No	No	Yes
Clustering	<ul style="list-style-type: none"> • Clustered File Systems, Red Hat Cluster Suite, Heartbeat 	No	No	Yes
Setting up package repositories	<ul style="list-style-type: none"> • Assisting customers who want to maintain their own repositories 	No	No	Yes

Appendix 2 – Cloud Availability Zone support scope details

The Cloud Availability Zone services include the scope of support listed below in addition to that of the corresponding Ubuntu Advantage Server support level, defined in Appendix 1.

Installation

This covers all the aspects involved with installing and configuring the Ubuntu Cloud offering.

Server installation scope	Description
Installation	<ul style="list-style-type: none"> Install Ubuntu Cloud from Ubuntu media or repositories
Storage Management for Cloud Servers and Image storage.	<ul style="list-style-type: none"> Set-up RAID and LVM for Ubuntu Cloud software usage Assistance recovering debugging and troubleshooting of storage issues.
Hardware set-up	<ul style="list-style-type: none"> Assessing hardware compatibility with Ubuntu Cloud Choosing the required versions of Ubuntu Server for Ubuntu Cloud Configuring Ubuntu to use appropriate hardware for Ubuntu Cloud usage
Networking	<ul style="list-style-type: none"> Setting network requirements for OpenStack Setting up interface aliases, bonding and vlan tagging for Ubuntu Cloud
Package and task selection	Recommendation on the specific packages to install for Ubuntu Cloud

Applications

This covers the various Ubuntu Cloud software configurations and included applications that are supported.

Server applications scope	Description
Ubuntu Cloud Infrastructure	<ul style="list-style-type: none"> Configuration of Ubuntu Cloud and sub-systems.
Cloud Portal	<ul style="list-style-type: none"> Installation and configuration of Cloud portal Debugging and solving problems with Cloud portal.
Hypervisor	<ul style="list-style-type: none"> Installation and configuration of system kvm hypervisor support Installing and setting up supported guest machine images. Troubleshooting and resolving hypervisor issues

System administration

System administration of Ubuntu Cloud software. This covers the various system administration and included programs that are supported:

Server system administration scope	Description
Ubuntu Cloud Infrastructure Backup	<ul style="list-style-type: none"> Installation of an appropriate backup application Assistance configuring and deploying backup system Help restoring from back-ups previously taken Troubleshooting and resolving backup or restore problems
Machine Image Backup	<ul style="list-style-type: none"> Backup of cloud machine image Snapshot cloud machine image
System updates & upgrades	<ul style="list-style-type: none"> Assistance installing security or critical fix updates Help planning and undertaking upgrades between Ubuntu Server and Ubuntu Cloud releases

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	<ul style="list-style-type: none">• Troubleshooting and resolving update problems
Logging and monitoring	<ul style="list-style-type: none">• Setting up supported system logging and monitoring for Ubuntu Cloud
Server security	<ul style="list-style-type: none">• Assistance configuring the Ubuntu Cloud servers in a secure fashion• Help configuring and setting up of supported OpenStack permissions and password policies
Setting up Cloud Machine Images repositories	<ul style="list-style-type: none">• Assist with management and maintenance of Cloud Machine Images.
Cloud Instance sizing	<ul style="list-style-type: none">• Assist with configuration of Cloud Instance sizing, number of system processors and system memory

Appendix 3– Desktop support scope details

Desktop Standard and Advanced scope table

The table below lists the included support scope for the Desktop Standard and Advanced levels of Ubuntu Advantage Desktop.

Desktop scope	Standard	Advanced
Installation		
Application selection	Yes	Yes
CD-ROM installation	Yes	Yes
Graphical desktop	Yes	Yes
Hardware compatibility	Yes	Yes
Network installation	Yes	Yes
System booting	Yes	Yes
Windows migration	Yes	Yes
Advanced file-system set-up	Yes	Yes
Automated installation	Yes	Yes
Applications		
Certified applications	Yes	Yes
Desktop environment	Yes	Yes
Desktop publishing	Yes	Yes
Digital art	Yes	Yes
Digital pictures	Yes	Yes
Education	Yes	Yes
E-mail	Yes	Yes
Messaging	Yes	Yes
Movies and music	Yes	Yes
Office Applications	Yes	Yes
Personal accounting	Yes	Yes
Web browser	Yes	Yes
Advanced productivity	Yes	Yes
Advanced applications	Yes	Yes
Developer Tools	No	Yes
Configuration		
Backup	Yes	Yes
Desktop Security	Yes	Yes
Graphics	Yes	Yes
Hardware management	Yes	Yes
Printers	Yes	Yes
Remote desktop	Yes	Yes
System support	Yes	Yes
Sound	Yes	Yes
Updates & upgrades	Yes	Yes
Wireless Internet	Yes	Yes

Desktop scope	Standard	Advanced
Windows network access	Yes	Yes
Desktop virtualization	No	Yes

Installation

This covers all the aspects involved with installing Ubuntu. Canonical will support various installation methods, setting up the hardware and loading Ubuntu correctly. The specific categories are as follows:

Desktop installation category	Description
Application selection	<ul style="list-style-type: none"> ● Recommendation on the specific packages to install for a particular use.
CD-ROM installation	<ul style="list-style-type: none"> ● Install Ubuntu from a CDROM. ● Install of Ubuntu from a USB connected drive.
Graphical desktop	<ul style="list-style-type: none"> ● Installing and configuring X and the graphical desktop. ● Configuration for new monitors, or peripherals. ● Optimising X and setting up dual monitors. ● X server and graphical desktop problem solving.
Hardware compatibility	<ul style="list-style-type: none"> ● Assessing hardware compatibility with Ubuntu. ● Choosing the 32 or 64 bit versions of Ubuntu. ● Configuring Ubuntu to use the systems hardware. ● Optimising Ubuntu for Certified or Compatible hardware. ● Configuration of supported peripherals.
Network installation	<ul style="list-style-type: none"> ● Booting from the network for network installation. ● Install Ubuntu using a local NFS server. ● Install Ubuntu using a local FTP server.
System booting	<ul style="list-style-type: none"> ● Set-up of system to boot Ubuntu by default. ● Configuration of Ubuntu to load other operating systems such as Microsoft Windows. ● Removal of Ubuntu as the boot-loader.
Windows migration	<ul style="list-style-type: none"> ● Partitioning to account for an existing Windows installation. ● Resizing the file-system to provide free space for the Ubuntu installation. ● Configuration of Ubuntu to be aware of a legacy operating system. ● Transfer of settings from the legacy Windows environment using the Migration Assistant.
Advanced file-system set-up	<ul style="list-style-type: none"> ● Recommendation of a specific partitioning scheme depending on the systems tasks. ● Set-up of Logical Volume Management (LVM) and encryption using the alternative installer. ● Creation and formatting of file systems so that they can be used by Ubuntu.
Automated installation	<ul style="list-style-type: none"> ● Kickstart and preseed configuration. ● Network booting and network settings configuration. ● Troubleshooting and resolving installation issues.

Applications

This covers the various programs that are supported as part of the services. Canonical will help the customer to install, configure and use the various applications. The major categories are:

Desktop applications category	Description	Ubuntu
Certified applications	<ul style="list-style-type: none"> ● Installation applications distributed through the Partner repository ● Debugging issues that are caused by Ubuntu 	<ul style="list-style-type: none"> ● Release dependent
Desktop environment	<ul style="list-style-type: none"> ● Configuring desktop preferences ● Customising desktop look and feel ● Managing files and folders ● Adding and removing applications launchers or menu items ● Browsing network shares 	<ul style="list-style-type: none"> ● GNOME Desktop
Desktop publishing	<ul style="list-style-type: none"> ● Installing and configuring desktop publishing ● Using basic templates and inserting multimedia content ● Printing created documents 	<ul style="list-style-type: none"> ● Scribus
Digital art	<ul style="list-style-type: none"> ● Installing digital art and graphics applications ● Configuring and using application functionality ● Debugging issues with graphical applications 	<ul style="list-style-type: none"> ● Gimp ● Inkscape
Digital pictures	<ul style="list-style-type: none"> ● Setting up cameras for use with Ubuntu ● Configuring applications to import images ● Creating and editing photo albums ● Publish albums on the Internet ● Debugging and resolving issues 	<ul style="list-style-type: none"> ● F-Spot
Education	<ul style="list-style-type: none"> ● Installing specific education applications and games ● Configuring education applications for children's use ● Configuring the desktop environment for particular age groups 	<ul style="list-style-type: none"> ● Tux Math ● Tux Paint ● Tux Type
E-mail	<ul style="list-style-type: none"> ● Configuring the default e-mail clients ● Sending and receiving e-mail ● Setting up e-mail filtering and anti-spam 	<ul style="list-style-type: none"> ● Evolution ● Thunderbird
Messaging	<ul style="list-style-type: none"> ● Installing instant messaging, internet voice and video conferencing ● Configuring for major service providers ● Troubleshooting and resolving application issues 	<ul style="list-style-type: none"> ● Pidgin ● Ekiga
Movies and music	<ul style="list-style-type: none"> ● Using and configuring music and video players ● Installing proprietary commercially supported codecs ● Troubleshooting and resolving multimedia problems 	<ul style="list-style-type: none"> ● Rhythmbox ● Totem ● Sound Juicer ● Cheese
Office Applications	<ul style="list-style-type: none"> ● Creating word processed documents, spreadsheets or presentations. ● Configuring the office applications ● Basic templates and inserting multimedia content ● Troubleshooting and resolving application issues ● Does not include advanced usage such programming macros 	<ul style="list-style-type: none"> ● LibreOffice Writer ● Evince ● LibreOffice Calc ● LibreOffice Impress

Desktop applications category	Description	Ubuntu
Personal accounting	<ul style="list-style-type: none"> ● Installing and setting up the personal accounting application. ● Integrating with supported electronic banking accounts ● Troubleshooting and resolving application issues 	<ul style="list-style-type: none"> ● GnuCash
Web browser	<ul style="list-style-type: none"> ● Using and configuring the web browser ● Installing common plugins from Ubuntu repositories such as Flash ● Configuring the browser for live bookmarks 	<ul style="list-style-type: none"> ● Firefox ● Pidgin ● Adobe Flash ● JVM
Advanced productivity	<ul style="list-style-type: none"> ● Advanced use of LibreOffice applications ● Setting up desktop database functionality ● Using the desktop database application ● Configuring connections to supported server databases ● Integrating with other LibreOffice applications. 	<ul style="list-style-type: none"> ● LibreOffice Database
Advanced applications	<ul style="list-style-type: none"> ● Installing desktop applications from the maintained repository ● Configuring and using desktop applications ● Debugging issues with advanced applications ● Does not include support for development or command line applications 	<ul style="list-style-type: none"> ● X or GNOME apps

System administration

Configuration covers the general configuration, management and maintenance activities. The major categories of support covered are set out below:

Desktop system administration category	Description
Backup	<ul style="list-style-type: none"> ● Installation of an appropriate backup application. ● Configuration and deployment of backup system. ● Assistance restoring from back-ups previously taken. ● Troubleshooting and resolving backup or restore problems.
Desktop Security	<ul style="list-style-type: none"> ● Installing the appropriate firewalling application and kernel support. ● Assistance configuring the firewall to protect and alert against external intrusion. ● Assistance on checking for compromise and recovering the system from backup following a security breach.
Desktop virtualization	<ul style="list-style-type: none"> ● Installing and setting up desktop virtualization. ● Assistance configuring networking and local host device access. ● Assistance installing Microsoft Windows and Ubuntu as a guest. ● Debugging and resolving issues with desktop virtualization.
Graphics	<ul style="list-style-type: none"> ● Installing software drivers for the graphical Ubuntu desktop. ● Installing third-party proprietary software drivers for advanced video effects where Ubuntu recommends it. ● Configuring the graphics or monitor set-up for advanced video effects. ● Configuring and optimising the graphics set-up for dual-monitors.
Hardware management	<ul style="list-style-type: none"> ● Configuration of Certified systems and “Works with Ubuntu” labeled peripherals. ● Removing hardware and reconfiguring Ubuntu. ● Optimising Ubuntu performance with specific hardware. ● Debugging and resolving hardware issues.

Desktop system administration category	Description
Printers	<ul style="list-style-type: none"> ● Installing a serial or USB printer. ● Configuration to print to a network printer. ● Configuring Ubuntu printing options. ● Resolving printer problems such as driver configuration.
Remote desktop	<ul style="list-style-type: none"> ● Setting up the default remote desktop capability in Ubuntu Desktop Edition. ● Configuring advanced desktop sharing features. ● Troubleshooting and resolving issues using the remote desktop.
Sound	<ul style="list-style-type: none"> ● Configuring sound to work with detected sound card. ● Sound configuration for specific applications. ● Debugging and resolving sound issues.
System support	<ul style="list-style-type: none"> ● Assistance configuring Ubuntu system components. ● Assistance optimising performance of Ubuntu. ● Problem identification, assessment and bug reporting. ● Provision of a work-around or complete resolution.
Updates & upgrades	<ul style="list-style-type: none"> ● Assistance installing security or critical fix updates. ● Assistance undertaking upgrades between Ubuntu releases. ● Troubleshooting and resolving update problems.
Windows network access	<ul style="list-style-type: none"> ● Setting up Ubuntu to login to a Microsoft Windows Active Directory. ● Assistance browsing and accessing network resources such as printers and file shares. ● Debugging issue either configuring or using the Active Directory authentication functionality (Likewise Open).
Wireless Internet	<ul style="list-style-type: none"> ● Wireless hardware driver detection and configuration ● Wireless networking set-up ● Internet configuration and access ● Wireless roaming set-up and configuration ● Troubleshooting and resolving networking or Internet access problems