Canonical Technical Support Handbook

July 2022

FAQ

Does Canonical offer free support?

Canonical provides Ubuntu Advantage Essential for free on up to three machines. This provides access to our knowledge base, as well as the Ubuntu Advantage tool which provides access to ESM, FIPS, Livepatch, etc. Please see additional details at ubuntu.com/advantage. Please note that this support level does not provide access to phone or ticket support.

Does Canonical offer Root Cause Analysis (RCA)?

At a customer's request, Canonical may provide RCA support beyond standard break/fix support on a case-by-case basis. The depth of the RCA work will be decided by Canonical Support engineers within each requested case. RCA support does not include any SLAs beyond the initial case response and the RCA support case will be L4 in severity unless determined otherwise by Canonical Support.

Can I use a single asset for support on multiple computers?

Canonical Support does not provide multi-system support for accounts with a single asset. Multi-system support includes support for multi-node clusters, installation support for multiple machines, and other similar configurations. Virtual machines and containers on a single hypervisor that is covered by a UA-I Physical asset, however, are covered by Canonical Support.

Can I ask for a remote session?

Canonical Support provides remote session support for break-fix issues at the discretion of our engineers. To use the time most efficiently on any call we will request logs and troubleshooting data prior to any live assistance.

Scope of Technical Support

Definition of an issue/problem

A supportable problem or issue is defined as an outage, or error that arises when using a supported product following the procedures and guidelines outlined in our product documentation.

Definition of break-fix support

Support will provide reasonable effort assistance in the event of an error or bug and answering basic questions about Supported Packages and Standard Releases of Ubuntu. How-to questions and best-practice recommendations are considered part of Consultancy and fall outside the scope of support.

What we support

Essential

- For customers with UA-Essential level assets, we provide access and break-fix support for the services listed below. Any custom configuration outside of our standard documentation falls outside of the scope of support.
  – ESM
  – FIPS and CIS
  – Landscape and KB access
  – Livepatch

- Essential Entitlements and how to raise tickets (KB)

Standard and Advanced

- Clarification on Support Levels
  As stated in section 1 of the UASD regarding UA Standard and Advanced levels. Any weekend support, including L1 severity, requires UA Advanced level support.

- UA Infra and Apps
  – Ubuntu Releases
    Support for any errors experienced during installation, configuration, maintenance, troubleshooting, and usage of any standard release of Ubuntu when installed using official sources and within its life cycle. Best practices, performance tuning, and custom configuration are outside of the scope of support, but are available through our consultation services. Bug fix support is not offered during the ESM period.
    > Certified Hardware
    > Packages, kernel, and Landscape
    > Kubernetes

- Support, UA Infra Only
  – Openstack
  – Charms
  – Storage
  – MAAS
  – Ubuntu Assurance Program
  – UA Apps

- Add Ons

What we do not support

- [Support Exclusions](#)
- [Openstack Exclusions](#)
  - [Private Cloud exclusions](#)
- [Kubernetes Limited Support](#)
- [MAAS Exclusions](#)

Hours of Coverage and Response Times

- [UASD Intro](#)

How do we define standard business hours

- 08:00 - 18:00 Monday - Friday local to the customer's headquarters unless another location is agreed. All times exclude Government-defined public holidays.

Severity Level Definitions

Support severity levels

Once a support request is opened, a Canonical support engineer will validate the case information and determine the severity level, working with the customer to assess the urgency of the case.

Canonical will work 24/7 or during the applicable Business Hours as described below to provide the customer with a work-around or permanent solution following the severity levels as described below. As soon as core functionality is available, the severity level will be lowered to the new appropriate severity level. Canonical will use reasonable efforts to respond to support requests made by the customer within the initial response times set forth below, based on the applicable service and severity level, but cannot guarantee a work-around, resolution or resolution time:

Severity level	Description	Standard initial response time	Advanced initial response time
1	Core functionality critical impact/Service down	4 hours, excluding weekends and holidays	1 hour
2	Core functionality severely degraded	8 Business Hours	2 hours
3	Standard support request	12 Business Hours	6 hours
4	Non-urgent requests, including cosmetic, informational and feature requests.	24 Business Hours	12 hours

Customer assistance. Continuous effort support is dependent on the customer being available at all times to assist Canonical, otherwise Canonical may need to reduce the severity level and its ability to respond.

Hotfixes. To temporarily resolve critical support cases, Canonical may provide a version of the affected software (e.g. package) that applies a patch. Such versions are referred to as "hotfixes". Hotfixes provided by Canonical are supported for 90 days after the corresponding patch has been incorporated into a release of the software in the Ubuntu Archives. However, if a patch is rejected by the applicable upstream project, the hotfix will no longer be supported and the case will remain open.

Support language. Canonical will provide the support in English, unless specified otherwise.

Remote sessions. At the discretion of a Canonical engineer, a remote access service might be offered to access a supported system. In such a case, Canonical will determine which remote access service to use. Canonical engineers do not perform any remote actions on a supported system.

Ask for a Peer Review. As a normal business practice, Canonical performs peer reviews on a percentage of all cases. Customers can specifically request a peer review on a case within the case comments or by calling the phone number listed in the support portal. An impartial engineer will be assigned to review the case and provide feedback.

Management escalation. The customer may escalate support issues following the escalation process:

- **Non-urgent needs.** Request a management escalation within the case itself. A manager will be contacted to review the case and post a response within 1 business day.

- **Urgent needs** can be escalated to Canonical's Support & Technical Services Manager by emailing support-manager@canonical.com. If you require further escalation, email Canonical's Support & Technical Services Director at operations-director@canonical.com.

Support Level Definitions

Standard vs. Advanced

Standard subscription levels are defined as 24x5 phone and ticket support. This means that support for cases, regardless of severity, is not included during the weekend. 24-hour support (across Geos) for Standard is only available to Severity 1 cases.

An Advanced subscription level includes 24x7 phone and ticket support. This differentiation does allow for urgent Severity 1 cases to be handled during the weekend by Canonical Support.

L3 Support Definition

The purpose of Level 3 Support is to enable Ubuntu end users to receive support services from Partner that closely fit their requirements, while being backed-up by Canonical's expertise.

Customer will make support requests directly to Partner. Common issues are to be resolved by Partner without recourse to Canonical.

In some cases complex issues may be outside the expertise of Partner. In such cases, Partner may escalate the issue to Canonical. Canonical will then work with Partner to provide a resolution. Communication with the Customer will generally be through Partner, but may be direct between Canonical and the Customer at Canonical's discretion.

Level 3 support responsibilities
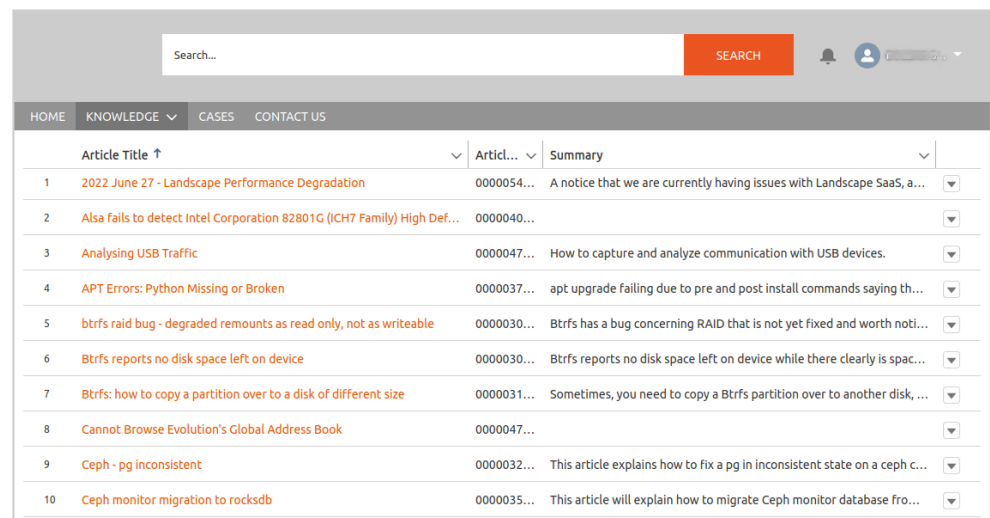
Canonical's Responsibilities	Upon receipt of the case Canonical's engineering support will use the test case provided to verify the defect on the validated systems accessible to them. Canonical will inform Partner when the issue has been verified and will confirm that the nature and scope of the problem are appropriate for the requested severity level. As soon as verification is concluded, Canonical will begin efforts to develop and distribute a patch for the defect. If a patch is not possible Canonical's engineering will recommend a workaround, with a possible solution developed for the next version of Ubuntu.
Partner's Responsibilities	Partner's engineering staff are responsible for specifying how the issue arises and in what sub-system it is taking place. Partner's engineers will provide a repeatable test case that Canonical's engineers are able to recreate on Ubuntu certified systems accessible to them. Partner's engineers will be expected to check Canonical's on-line bug database, Launchpad, to ensure that the issue is not already known and being resolved. Partner's engineering staff will work with Canonical's engineers to provide any debugging or further testing required. Where requested Partner's engineering staff will provide any technical information requested necessary to resolve the problem.
Output	Canonical will provide a patch, or workaround or update package for Partner to use in production.

Self-help resources

Canonical Knowledge Base

The Canonical Knowledge Base is a collection of articles related to our supported products. These articles range from common issues and their solutions or workarounds, instructions for configuration settings or common day-2 operations like backups. It also contains important troubleshooting tips and steps on interfacing with our Canonical Support team.

The Knowledge Base can be accessed via the Support Portal and has a search function to easily locate articles or past cases for your account with keywords related to your query.

Canonical Support Portal

By clicking on any of the product logos, or searching at the top, you can find articles created and verified by our own Canonical Support team aimed at helping you get the most out of your product!

Product-Focused Documentation

Ubuntu Server

Documentation for Ubuntu Server, including installation and setting up many services, can be found in our docs page.

MAAS (Metal as a Service)

Documentation for MAAS, including concepts and installation docs, can be found here.

Tutorials and use cases can be found here.

Questions and requests for assistance to developers, users, or contributors can be posted on the MAAS Discourse, found here.

Juju

Documentation for getting started with Juju and getting some base-level knowledge can be found here.
For tutorials and use cases with Juju, you can head on over to their tutorials page, found here.

Join the Juju community and connect with developers and users on Discourse!

For information regarding our Hosted Juju as a Service offering, check out jaas.ai.

OpenStack

Although not specifically a Canonical product, we are members of the Open Infrastructure Foundation and work on Openstack alongside many other contributors and users.

Documentation for Openstack is vast, and can be found here or here. **Keep in mind openstack.org docs are specific to each release, and for previous/ following releases, you may have to look at the docs for that release.**

For getting started with Openstack, you can look at the available tutorials for trying Openstack here and here.

To connect with the Ubuntu Openstack community, go to our Discourse page here.

Extended Security Maintenance (ESM)

For information regarding ESM, including how to enable ESM for your Ubuntu machines (free for personal use!), check out our docs here.

Security Certifications (FIPS, CIS, DISA-STIG, CC)

For information on staying compliant with security certifications on your Ubuntu installs, go to your Certification & Hardening page, found here.

Access to enable your compliance and reduce your operational risk is included with your Ubuntu Advantage subscription, or with Ubuntu Pro, in the cloud!

Livepatch

For information about our Livepatch product, including how it works and getting started, you can find the docs here.

Livepatch is included with your Ubuntu Advantage subscription, or with Ubuntu Pro for our public cloud users.

Landscape

For assistance and general knowledge for Landscape as a service or On-Prem, visit the Landscape docs page found here.

For getting started with Landscape, visit our try Landscape page here!

For users with a Landscape deployment looking for ways to work with the landscape API, check out our API docs.

MicroK8s

Microk8s is a lightweight, minimalistic, conformant K8s for devs, cloud, clusters, workstations, Edge and IoT. Documents on getting started and general knowledge can be found here.

Tutorials for MicroK8s can be found here.

If you are interested in connecting with the larger MicroK8s community, swing by the community forums!

Charmed Kubernetes

For information regarding Charmed Kubernetes, including installation guides and integrations, check out our kubernetes docs. For the installation guide specifically, visit our install page.

For information regarding managed Kubernetes, visit our managed page, found here.

LXD/LXC

If you would like to try out LXD, you can find documentation to get started here.

Discussion around LXD, and general helpful information from the community can be found here.

Ceph

For documentation around getting started with Ceph, please visit their docs page here. **Keep in mind docs.ceph.com docs are specific to each release, and for previous/following releases, you may have to look at the docs for that release.**

To learn more about the Ceph community, you can visit their community page here.

Security Notifications

Whenever a security issue is fixed in an official Ubuntu package, developers will issue an Ubuntu Security Notice (USN). To stay up to date with critical security issues and compliance, you can subscribe to our Security Notices (or search through them) in our security notices page, found here

Canonical Service Status Page

For a live view of our commonly used or hosted support sites, as well as a historical view of previous service outages/disruptions, you can look at our status page here. If you wish to subscribe for service notifications, you can find the instructions at the top of that page.

For a larger view of our community pages, you can check out the Ubuntu state page here.

Interacting with Canonical Support Team

Enabling your UA Subscription Services

- Log into https://ubuntu.com/advantage with your UbuntuOne account
  - Retrieve your UA token from the page above

- Install or update the UA client:
  - sudo apt install ubuntu-advantage-tools

- Attach the UA client using the token from above:
  - sudo ua attach <token>
  - ESM and Livepatch will be auto-enabled after attaching

- To enable other items use the UA client:
  - sudo ua enable <item>

Preferred methods for contacting Support

- Support Cases
  This is the preferred method for contacting our Support team and requesting assistance. This allows our Support team the best ability to focus on the issue at hand and assist you in finding a resolution.

- Phone Support
  For urgent issues Canonical also provides phone support. You can find local phone numbers within the Support Portal on the Contact Us page.

- Remote Sessions
  At the discretion of the Canonical Engineer they may be willing to use a screen-share session to assess the customer's supported system. In such cases, Canonical will determine which remote access service to use. Canonical will not perform any remote actions on the client systems. All commands will be run by the client.

Create a login account

- In order to use different services provided by Canonical, you will need an Ubuntu One account. To create an Ubuntu One account:
  - Navigate to https://login.ubuntu.com
  - Choose "I am a new Ubuntu One user"
  - Fill in your details and then click on "Create account" to finish.
  - A visual guide can be seen at the following link:
    http://ubunt.eu/create-sso

Add/Update authorized Contacts

- Log into the Support Portal: https://support.canonical.com

- In the upper right hand corner there will be a dropdown with your username.
  - This menu will have an option for [My Account]
  - From there you should see the contacts on the account
  - You can add and edit existing contacts from there

Before opening a support case:

- Record anything you have tried already

- List any related bugs/websites you've found

- Enable debug mode to get more information from affected software

- Try to reproduce the issue in a fully up-to-date environment

- If possible, try multiple versions of Ubuntu
  – This helps us identify if it is a regression or if a fix can be backported

- Search the Canonical Knowledge Base
  – We are constantly releasing fixes
  – Your issue may already have a solution

- Search previous cases
  – Was this or a similar issue resolved in another case previously?

Useful information for every support case:

- Impact Statement: How does the problem affect your organization?

- Summary/description of issue: exact time & date the problem occurred

- Describe a reproducible test case

- Context of issue within your environment
  – Any relevant technical information
  – What Ubuntu version(s) are affected?
  – Logs / Error Messages / Screenshots
  – Network Diagrams
  – Links to Bugs

- Generate and attach a sosreport:
  – Further information on sosreport is in the sosreport KB article

Checking the status of cases

- Log into the support portal with your UbuntuOne account
  – Navigate to the [Cases] tab in the top menu bar
  – Case statuses are listed alongside the case number/title

- **Waiting on Customer:** means that Support is waiting on the client to gather some information, or to test a proposed solution and report back

- **Waiting on Support:** means that the client is waiting on Support to investigate, and either propose a solution or next steps accordingly.

- **Waiting on Engineering or Operations:** means that Support has escalated a case either to our Sustaining Engineering team or to another internal team for further investigation or action

- **Waiting on SRU:** means that a case is waiting on the Stable Release Update cycle. This is part of the process by which new patches and updates are tested, vetted, and verified before public release, to hopefully not cause any regression or other unintended behavior.
  - This process has a cadence of at least two weeks, and sometimes longer depending on circumstances.
  - In the event that a patch is accepted by the team in charge of maintaining a given package, that patch will not be included in the publicly available package until the next Stable Release Update cycle.
  - During the testing process, a temporary package may be provided to a client through the case or a private PPA. Please note that the use of such a temporary package is intended largely to confirm that the patch resolves the issue.
  - After the SRU process has been completed and the new version of that package is publicly available, clients are expected to update to the newly released version, for their production systems.

- **Waiting on Upstream:** is used In the event that our Sustaining Engineering team identifies a bug and proposes a patch to resolve the issue. Here they may reach out to the maintainer of a package that is outside of Canonical.
  - We do this kind of external escalation when we feel that the patch or fix is best maintained outside of Canonical where it can be of benefit to the larger Open Source community.

How to escalate a case

- **Service/Product:**
  - Concerns/questions about your Canonical Support contract.
  - Contact your Sales contact or Partner Manager

- **Feedback at the end of the case**
  - Concerns/questions about how the case was handled by the Canonical team.
  - When a case is closed, a survey will be emailed to the case owner concerning overall experience with Canonical's support. All surveys are reviewed by management.

- **Ask for a Peer Review**
  - Customer wants to request a second opinion on the case.
  - Customers can specifically request a peer review on a case within the case comments or by calling the phone number listed in the support portal. An impartial engineer will be assigned to review the case and provide feedback.

- **Management Escalation** (non-urgent)
  - Concerns regarding a problem which is not making enough progress, customer satisfaction or Canonical's support team
  - Call support and discuss in support the case. Managers will reach out to the client.

- **Management Escalation** (Critical Escalation)
  - Concerns that could not be resolved following the escalations above.
  - Contact the Director of Support & Technical Services

Closing a case

Cases cannot be closed from the client side. Please reply to the case and indicate that the issue has been resolved or the information provided was sufficient for the request. The support technician will mark the case Resolved and a satisfaction survey will be sent out.

Customer Satisfaction Survey

After a case is closed a survey about the overall customer experience is sent via email to the client owning the case. All of these replies are then reviewed by our Customer Success team and the Support Managers.

Reasonable-effort support in certain scenarios

Support will not provide break-fix or troubleshooting for unsupported environments. Limited guidance may (at the engineer's discretion) be offered for the customer to troubleshoot the issue themselves at a low (Severity 4) priority for a maximum of one week. Please note that reasonable-effort support will be subject to the availability of the engineer based on workload and priority. Assistance with bug reports for supported components within the environment remains available in this situation.

Multi-Vendor Issues

Organize multi-vendor issue coordination through TSANet or Canonical's direct partnerships where applicable. When the root cause is identified, the TAM or Support Engineer will work with the vendor for that sub-system, working to resolve the case through their normal support process

Product Enhancement Requests

"We are happy to create feature requests on your behalf for our supported products [link to other section] that are maintained by Canonical. Once the feature request has been opened, we will close the support case as they are not designed to track new feature development. "

"If you are interested there is the option for customer sponsorship of a feature that would allow you to pay for custom engineering to implement your requested feature. If you are interested please let us know or reach out to your sales representative"

We are unable to provide feature requests for products not maintained by us.

We are unable to provide a timeline for any feature requests, nor any guarantees that they will be picked up by that particular development team.

Add-ons to the standard UA support options

Technical Account Manager

Canonical offers a Technical Account Manager (TAM) add-on to our UA-I assets. A TAM becomes familiar with your company's current technology-related goals and helps to form Canonical's support for your company around those goals. A TAM can work for your company up to 10 hours a week.

- **Single Point of Contact:** As often as every two weeks to keep the customer informed about any updates or status on support cases. Canonical-maintained understanding of complex customer environments to enable a quicker resolution time on average.

- **Multi-Vendor Coordination:** Canonical takes ownership of multi-vendor issues, often using TSANet, saving the hassle of coordinating support from multiple vendors.

- **Deployment Planning:** Best-practice advice on platform configuration as well as deployment pitfalls to avoid.

- **Service Review:** Quarterly review to ensure customer receives the correct level of support for their business.

- **Onsite Visit:** Yearly review to assess customer IT environment and understand the changes that have taken place.

- **Single Customer Focus (DTAM):** "DTAM" means a Canonical support engineer dedicated to work full-time for a single customer.

Dedicated Support Engineer

A Dedicated Technical Account Manager (DTAM) is an add-on to our UA-I assets that takes a TAM even further: Rather than only working up to 10 hours per week for your company, a DTAM can work up to 40 hours a week for your company.

- The DSE acts as the primary point of contact for all support issues, as well as provide Ubuntu Server and Cloud expertise to the customer.

- The DSE will be embedded within the customer team, to provide architectural design and recommendations for Ubuntu and Canonical technologies.

- Participates in regular calls with the customer and Canonical to discuss project direction.

- Can provide on-site customer support, working to resolve complex customer problems related to Canonical products and services.

- This integration allows customers to obtain proactive support and services as an integral component of the engineering team.

- The DSE will be directly available to the client with the assistance of a Canonical Project Manager and the Canonical Support & Technical Services team.

Managed Services

Canonical has a Managed Services offering to help in maintaining your OpenStack and Kubernetes clouds. Our Managed Services team remotely functions to operate, monitor, and manage your environment.

Consulting services

If you're in the deployment phase of your environment, Canonical offers Consulting add-ons to travel to your company premises and build Openstack clouds, Kubernetes clouds, and more according to your company's needs.

Training

Train your sysadmins and devops engineers to become Charmed OpenStack or Charmed Kubernetes experts. Canonical runs training programmes to suit all environments and all levels of experience. Explore, prototype and design with cloud technologies so you can get the most out of your environment. All classes and materials are provided in English.

Cube

A Certified Ubuntu Engineer (CUbE) is a professional microcertification program to indicate the mastery of components in Ubuntu.

Level 3 only engineering-to-engineering engagement

If your company has a team that manages your systems but only needs assistance with bugs found in Ubuntu and supported software, Canonical offers Level 3-only (Bugfix-only) engineering-to-engineering assets.