Software Support Policy
January 2023 - Rev20230124

This OpenNebula Support Policy ("Support Policy") describes the policies and procedures under which OpenNebula Systems ("ONE") provides support ("Support") to direct Customers or Partners ("Subscribers") for the ONE downloadable products available at the ONE Enterprise Repository. ONE provides Support subject to the terms and conditions of this Support Policy and the Agreement under which Subscriber has purchased such Support. ONE provides support to the Product through the Customer Portal or by live chat and screen sharing in accordance with the terms of the Support Matrix available in the Subscription Guide and the Order Form. This policy does not apply to users of ONE Partners' solutions and products that include the Product. These users must work directly with the ONE Partner, which will be responsible for escalating issues that it cannot resolve.

1. Definitions

"**Business Hours**" means 9:00 a.m. - 6:00 p.m. Central European Time or 8:00 a.m. - 5:00 p.m. Eastern Standard Time of Business Days excluding ONE company holidays. The Order Form can define a different time range and zone.

"**Certified Infrastructure Environments**" are the combinations of Certified Platform Components that have been through the complete OpenNebula Quality Assurance and Certification activities. ONE does not certify every possible combination of Certified Platform Components, but, instead, certifies most common combinations. Additionally, ONE offers a certification support service to certify OpenNebula on customer and partner specific environments.

"**Certified Platform Components**" are Compatible Platform Components tested and verified by ONE to work with OpenNebula.

"**Compatible Infrastructure Environments**" are the combinations of Compatible Platform Components.

"**Compatible Platform Components**" are Platform Components that provide an environment or an interface compatible to work with OpenNebula according to the requirements specified in the software documentation.

"**Customer**" means a ONE customer with an active subscription.

"**Customer Portal**" means the Customer Portal listed at the Order Form.

"**End User Subscriber**" means a company with an active End User Subscription. End User Subscribers do not have direct access to a ONE Customer Portal.

"**Enterprise Repository**" means the Repository referenced in the Customer Portal.

"**Error**" means a failure of the Software to perform materially in accordance with the Documentation.

"**Hot Fix**'' means software released to a single Subscriber as an Incident Resolution that does not have any, or at best very limited, functional testing, system testing, regression testing, or testing with any of the other test suites that ONE applies as part of normal quality-and-assurance processes. Hot fixes are issue-specific, and therefore not released to all customers. ONE may deliver Hot Fix code segments as part of an Incident Resolution if Subscriber agrees to include such code and agrees to build such code. Subscriber acknowledges and agrees that actual Hot Fix deliverables may or may not, at the sole discretion of ONE, be incorporated into any future Product software release. Because Hot Fixes have no or very limited testing, until such time (if any) that a HotFix is included in a Release: (a) Subscriber's use of a Hot Fix is at its sole discretion and risk, and (b) notwithstanding any other term herein and of the Agreement, all Hot Fixes are provided to Subscriber "as is," without any warranties of any kind, and ONE accepts absolutely no liability or obligation of any kind for the Subscriber's use of a Fix.

"**Order Form**" means the applicable Partner Subscription Order Form (for Partners) or Customer Subscription Order Form (for direct Customers) documentation signed by the parties or otherwise accepted by ONE.

"**Partner**" means a ONE partner.

"**Partner Program Guide**" means the then-current Partner Program Guide description available at the

ONE Customer Portal. In the event of any conflict between the Agreement and the Program Guide information applicable to Partner, the Partner Program Guide will apply.

"Platform Components" are hardware elements, devices, hypervisors, operating systems or any other software piece that complement OpenNebula to build a fully functional cloud infrastructure.

"**Product**" means a complete and unchanged copy of the code of the ONE software product(s) listed on the Order Form, limited to the listed version(s) and limited to the code obtained from the ONE Enterprise Repository. Product includes any Upgrade, Update or Maintenance Releases made generally available by ONE during the Term.

"Product Features and Supported Platforms" means the detailed description of Product features available in the Product documentation, and the Certified Platforms available in the Product Release Notes.

"Production Use" means using the Product with Subscriber's applications to operate Subscriber's ordinary business, which may include third party Subscriber's access to or use of such applications. "Non-Production Use" means use of the Product solely in a development or testing environment for application development, proof of concept, demonstrating or quality-assurance.

"**Release**" of software can be:

- "**Upgrade Release**" means a new major release of the Product during the Term that typically includes substantial changes.

- "**Update Release**" means a new minor release of the Product during the Term that typically includes small changes and new features.

- "**Maintenance Incremental Release**" means a new incremental release of the Product during the Term that typically includes bug fixes.

"**Resolution Time**" means target time period that starts at the end of Response Time and ends when ONE provides a Fix. Resolution Time excludes any time during which: (1) Subscriber collects and provides any data or materials requested by ONE to troubleshoot the problem, (2) Subscriber has not provided, if required, to ONE sufficient remote access to a network so that ONE can carry out Restoration services, or (3) there are other delays caused by reasons beyond ONE's reasonable control. A Fix is either a Hot Fix, a Workaround, or providing sufficient information to resolve the issue. When a Fix is provided and the Incident is closed, the Subscriber will also receive information about the work plan to provide a permanent correction.

"**Response Time**" means target time period taken from when Subscriber files the initial request to ONE until a ONE technical support person has been assigned to the Incident and begins working on the problem. Due to the wide diversity of problems that can occur, and the methods needed to resolve them, response time IS NOT defined as the time between incident reporting and problem resolution.

"**Server**" means a single machine that processes data using one or more CPUs. In the event such a machine contains Server Blades, each Server Blade is a separate Server.

"**Server Blade**" means a complete computing system on a single circuit board. A Server Blade will include one or more CPUs, memory, disk storage, operating system and network Connections. A Server Blade is designed to be hot-pluggable into a space-saving rack; each rack may contain many Server Blades.

"**Subscription Guide**" means the then-current Subscription Guide description available at the ONE Customer Portal. In the event of any conflict between this Policy and the Subscription Guide information applicable to Customer, the Subscription Guide will apply.

"**Subscriber**" means a company (direct Customers or Partners) with an active subscription to a ONE Customer Portal.

"**Subscription Fee**" means the nonrefundable annual fee payable to ONE for Subscription, as set forth on the Order Form. Support Fees for subsequent years during the Term shall be as provided on the relevant price list.

"**Subscription Extensions**" are add-ons to the OpenNebula Subscription that broaden the coverage of the supported software components or extend the Subscription with additional services.

"**Support**" means the level of ONE annual support listed on the Order Form. Regarding software releases, **Mainstream Support** includes bug fixing, new features and certification, **Maintenance Support** includes bug fixing and certification but it does not include backporting of new features; and **Extended Support** only includes critical bug fixing.

"**Support Matrix**" means the matrix with the levels of support on the Order Form or on the Subscription Guide.

"**Supported Infrastructure Environments**" are the combinations of Supported Platform Components.

"**Supported Platform Components**" are Platform Components that are fully supported by ONE. The release of each major and minor version includes a matrix with the supported platforms.

"**Website**" means the web sites created and managed by ONE under the domains OpenNebula.io and OpenNebula.pro.

"**Workaround**" is a temporary procedure, routine or correction for an Error to be used by Subscriber until a new software Release is available.

"**Year**" means twelve months of Support beginning upon initial purchase date or the anniversary of such date.

2. Support Scope of Coverage

2.1. What Support Includes

ONE shall provide the following expert support to Subscriber:
- Problem diagnosis, resolution and bug fixing
- Solving unexpected problems when using, installing or configuring the software
- Guidance about tuning for optimal and scalable performance in your environment
- Answering "how to" questions related to standard and intended product usage
- Offering hints about how to go around missing features
- Answering questions about product adaptation and integration

2.2 What Support Excludes.

Support excludes:
- Modified software and code not distributed as part of an official Product distribution
- Releases not available at ONE websites
- Technology preview features and unsupported platforms
- Third-party drivers
- System design and training
- Issues arising from non-standard usage of Product
- On-site services, remote access services, and development services, but in those cases stated in the benefits

OpenNebula support plans provide commercial support for OpenNebula but not for the hardware devices and the rest of software components and platform services needed to build a cloud unless a Subscription Extension has been contracted. The supported components within a Subscription Extension should be used exclusively as part of an OpenNebula cloud. ONE cannot provide immediate minor enhancements and hot fixes for those supported components as it provides with OpenNebula. Because OpenNebula leverages the functionality exposed by the underlying platform services, its functionality and performance may be affected by the limitations imposed by those components. Contact us if you are interested in having support for other components in the cloud infrastructure stack and not only for the OpenNebula orchestrator.

2.3 Versions Covered Under Support.

(a) ONE will provide Support only for Product versions available at the ONE Enterprise Repository.

(b) ONE will provide Mainstream, Maintenance and Extended Support to stable OpenNebula releases according to the OpenNebula Enterprise Edition Lifecycle policy published in the Support Portal.

(c) ONE offers optional Extended Life Support for customers interested in longer term Support of LTS versions.

2.4 Supported Platforms.

(a) ONE supports both Compatible and Certified Infrastructure Components. The Release Notes of the Product describes the certified platforms and configurations, and the software documentation defines the requirements for the Compatible Platform Components. There is no commitment from ONE to deliver all Product features in any supported platform configuration. Because Product may leverage the functionality exposed by the underlying platform services, its functionality and performance may be affected by the limitations imposed by those services.

- The list of features may change on the different platform configurations
- Not all platform configurations exhibit a similar performance and stability
- The features may change to offer users more features and integration with other virtualization and cloud components
- The features may change due to changes in the functionality provided by underlying virtualization services

(b) You can contact ONE if you need advice about the best platform configurations for functionality and performance.

2.5 Beta Releases and Support.

ONE does not provide any Support for beta versions of products or services. However, Subscribers are encouraged to submit reports of problems with respect to beta products or features to help the engineering team identify bugs and improve product development. ONE has no obligation to the Subscribers under this Support Policy with respect to any beta products or services, and the submission of any support inquiry regarding any beta product or services shall not constitute an "Incident".

3. Incident Submission

3.1 Incidents.

Subscribers shall obtain Support by reporting individual issues to ONE. Each individual issue (request or ticket) reported to ONE shall be tracked from initial report through final resolution (each such issue, an "Incident"). Subscriber is entitled to the number of Incidents specified in the Support Matrix.

3.2 Who May Submit Incidents.

(a) Support is intended to aid individuals with issues and questions beyond what is covered in documentation and introductory material for the ONE Products. Subscribers are expected to make every effort to ensure that the individuals that are designated as authorized contacts are qualified to internally support the Subscriber. To be qualified, these individuals should know the internal build systems, tools, policies, and practices in use by the Subscriber, and they should also be proficient users and administrators of the Product. Each such qualified contact is a "Contact" in the Order Form.

(b) Subscriber shall be entitled to designate the number of Contacts specified in the Support Matrix. Subscriber is responsible for designating at least one authorized Contact at the time of purchase of Support in the Order Form.

3.3 How to Submit Incidents.

Subscriber may submit Incidents to ONE by a Contact through the ONE Support Portal. The Support Matrix in the Program Guide specifies which communication channels are available under each support plan offered by ONE.

3.4 How to Report an Incident.

(a) In order to expedite the resolution of Incidents, ONE expects that Subscriber will make every attempt possible to verify that the Incident is reproducible on the approved platform(s) for the Product (as applicable).

(b) Subscriber will assign Incidents and provide information necessary to help ONE track, prioritize, reproduce or investigate the Incident, such as:

- Severity level
- Full description

- Steps to reproduce the issue and relevant data
- Any applicable log files or console output
- Exact wording of all issue related error messages
- State of the incident will be "NEW"

(c) Incident Severity Levels:

- A Severity 1 problem represents a catastrophic problem in production systems. Examples include a complete loss of service, production systems that are crashed, or a production system that hangs indefinitely. System cannot continue essential operations.
- A Severity 2 problem represents a high-impact problem in production systems. Essential operations are seriously disrupted.
- A Severity 3 problem represents a lower impact problem on a production system that involves a partial or limited loss of non-critical functionality, or some other problem involving no loss in functionality. System can continue essential operations.
- A Severity 4 problem represents a general usage, installation, integration, or configuration question. There is no impact on the quality, performance, or functionality of the product in a production system. This level also includes all problems on non-production systems, such as test and development systems; and feature requests.

The production systems are servers for which subscription fees have been paid for direct Customers, or for which End User subscription fees have been paid for Solution Provider Partners.

(d) Live Support.

The Live Support Add-on is an extension to the Standard and Premium Support Subscriptions, so Severity 1 (Catastrophic Problem) and Severity 2 (High Impact Problem) Incidents can be managed through a scheduled live chat and screen sharing.

- Live Support is not meant to report issues, nor is it meant to "bump" tickets immediately after submitting. Live Support is used primarily to explain and expand upon ticket responses to clients.
- The client should always report the Incident through the Support Portal and include at the beginning of the Subject field the [Live Support Request] tag.
- The Support Team will respond to the Incident as described in Section 3.4 and include a suitable time to arrange a conference call within the response time depending on the priority level of the Incident.
- This ensures that the Live Support is provided by an expert in the specific Incident and that a previous diagnosis has been performed in order to speed up the resolution process.

4. Incident Evaluation

4.1. Incident Initial Response.

For each Incident reported by Subscriber in accordance with these procedures, ONE shall confirm the Severity level for the Incident in accordance with the terms above and the terms of the Support Matrix, and shall assign a category and a priority level. Reported incidents can be accepted by changing its state to "OPEN".

(a) Incidents Categories:

- Product Error: Subscriber encounters a problem on a production system, which is determined to be a ONE Product error. Problems on production systems can be severity 1, 2 or 3. Problems on non-production systems, such as test and development systems are severity 4.
- Technical Assistance: Questions about product usage and installation that do not result in registration of a Product error or feature enhancement request. These incidents are severity 4.
- Integration Assistance: Questions about product integration, adaptation and customization. These incidents are severity 4.
- Feature Enhancement. A request by Subscriber for a feature that is not included in the current versions of ONE Product. ONE will review requests to be included in subsequent Product releases. Feature enhancement is severity 4.

(b) Technical Incident Priority Levels. Priority can be low, normal, high or urgent depending on the severity level and the contracted level of support, as defined in the Support Matrix.

4.2. Incident Analysis.

ONE shall analyze the Incident, keep a record of ongoing communications with Subscriber, and, as

applicable, verify the existence of the problem(s) resulting in the Incident.

4.3. Access to Data or Systems.

In the course of investigating an Incident, a ONE agent may request certain supporting data in order to determine the cause of the event, changing the state of the incident to "PENDING". When a reasonable request is made by ONE, the Support Contact must provide this data in a reasonable time frame according to the priority level of the incident, or else the Incident may be "SOLVED" for "LACK OF INFORMATION," as determined by ONE in its sole discretion. Subscriber may reopen a closed Incident with additional information via the Support Portal. In some cases, a ONE agent may request access to Subscriber's system in connection with addressing an Incident. The Subscriber may choose to grant or not grant this access, and the Subscriber is responsible for determining the level of security required to access that system and enforcement of that security. ONE will change the state to the incident to "OPEN" when the required supporting data is received. When a requester replies to a "PENDING" incident, the ticket is automatically changed to "OPEN".

4.4 Escalation Procedures.

Subscriber may escalate the Severity level of an Incident if Subscriber determines that the support request involves a time or system critical issue, an extremely complex problem, or an unreasonable amount of time has passed with no resolution.

Escalations are based on Severity and not on Urgency as per our severity definition. The OpenNebula Support Portal (OpenNebula.pro) does not allow to modify the severity of a ticket once it is created. If a Customer feels the support case requires extra attention because it:

● is not being resolved appropriately,
● is an unreasonable amount of time has passed with no resolution,
● needs a senior resource, or
● is more severe or should be a higher priority

, its escalation can be done following the process below:

● Customers should open a new ticket with the appropriate severity.
● They should use "Request Escalation: ticket_to_escalate" as Subject.
● In the Description, Customers should be as specific as they can regarding their area of concern, business impact and expectations.
● Click Submit Request.

A Support Manager will acknowledge the request in the case comments.

A Technical Account Manager (if applicable) can also escalate on behalf of the Customer.

5. Incident Resolution

5.1. Response Time means target time taken from when Subscriber files the initial request to ONE until a ONE technical support person has been assigned to the Incident and begins working on the problem. Due to the wide diversity of problems that can occur, and the methods needed to resolve them, response time may not be defined as the time between incident reporting and problem resolution.

5.2. ONE will use commercially reasonable efforts to resolve Product Error Incidents. ONE will work continually (24x7) for urgent and high priority in premium levels or during Business Hours (9x5) for the rest of priority and levels until an Incident Resolution has been provided to Subscriber. ONE will provide regular status updates to the Subscriber until Incident Resolution.

5.3. Product Error Incidents can result in a Workaround, Hot Fix or any other measure that temporally resolves the Incident until the next software Release for Standard and Premium customers only. ONE will provide a new asynchronous software Release to resolve Severity 1 and 2 Incidents, while Severity 3 and 4 Incidents are permanently solved in the next scheduled software Release.

5.4. Incidents shall be resolved in the following manner, as communicated via the ONE Support Portal, changing the state of the Incident to "SOLVED" with one of the following proposed solutions:

(a) FIXED:
● Product Error: A solution has been delivered to Subscriber. If the correction is temporary (Workaround or Hot Fix), the subscriber will also receive information about the work plan to provide

a permanent correction
- Technical and Integration Assistance: Subscriber has received direction and assistance in resolving the Incident
- Feature Enhancement: The request has been evaluated, and Subscriber receives an answer about its inclusion in subsequent Product releases or the custom engineering service for its implementation

(b) DUPLICATE:
- Other "OPEN" issue is already addressing the Incident

(c) WORKSFORME:
- The ONE Product behaves according to specifications and will not be changed
- The problem exists in the ONE Product documentation and the solution to the Incident is to clarify and/or modify the ONE Product documentation in a subsequent documentation release
- After applying considerable time and ONE resources to the Incident it has not been possible to reproduce the Incident

(d) LACK OF INFORMATION:
- The Support Contact does not provide data required to investigate the incident in a reasonable time frame according to the priority level of the incident

(e) WON'T FIX:
- The ONE Product is not causing the problem and the root cause is in a non-ONE part
- The Incident is a Non-Technical Support Incident

5.5. Solved incidents can be replied to by changing their state to "OPEN" and restarting the evaluation process and the maximum response time.

ANNEX A. Mission Critical Services Add-on - Enhanced Support

This Annex to the OpenNebula Software Support Policy complements the default Policy when the support is offered to Subscribers with an active Mission Critical Services Add-on. This is the highest level of support available from OpenNebula and includes a Mission Critical SLA available in the Subscription Guide and the Order Form with guaranteed Response Times and a Restoration SLA with established Penalty.

1. Definitions

The following definitions apply with the Mission Critical SLA:

"Restoration" means the time at which the earlier of the following occurs: (a) the Software is returned to full functionality as compared to the functionality before the issue occurred, or (b) a temporary fix to the Software is performed which allows the Software to be used without any degraded functionality. A Fix is either a HotFix (patch), a Workaround, or providing sufficient information to temporarily resolve the Incident until the next software release. When a Fix is provided and the Incident is closed, the Subscriber also receives information about the work plan to provide a permanent correction. ONE provides a new asynchronous software Release to resolve Severity 1 and 2 Incidents, while Severity 3 and 4 Incidents are permanently solved in the next scheduled release.

"Response Time" means time period taken from when Subscriber files the initial request to ONE in the Customer Support Portal (OpenNebula.pro) until ONE answers the request in the Portal, assigns a technical support person to the Incident, and begins working on the problem.

"Restoration Time" means the time period that starts at the end of Response Time and ends at Restoration. Restoration Time excludes any time during which: (1) Subscriber collects and provides any data or materials requested by ONE to troubleshoot the problem, (2) Subscriber has not provided, if required, to ONE sufficient remote access to a network so that ONE can carry out Restoration services, or (3) there are other delays caused by reasons beyond ONE's reasonable control.

2. Service Credits (Remedy)

In the event ONE does not meet the Mission Critical SLA, Customer will be eligible to receive a Service Credit as described below:

- ONE will maintain a **Report System** that tracks all issues reported by Subscriber and provides updates to the Subscriber on the progress of each issue. The system will include metrics on Response Times, resolution status, and Restoration Times. ONE will provide Subscriber with monthly reports of these metrics.
- In each one-year period of the **Services Period**, beginning on contract award date upon each anniversary date thereof, ONE will: (1) meet the Response Time specified for 100% of Subscriber's support requests during that period, and (2) meet the Restoration Time for 75% of Subscriber's support requests that require Restoration during that period.
- The ONE Report System will measure these rates for Response Time and Restoration Time as of the end of each applicable one-year period of the Services Period. ONE will present to Subscriber an **Annual Review** at the end of each of these one-year periods.
- If, as of the end of each applicable one-year period of the Services Period, ONE has not met: (A) the Response Time rate as specified above, or (B) the Restoration Time rate as specified above when Subscriber has submitted at least 10 service requests that required Restoration during the applicable one-year period, or (C) both the Response Time and the Restoration Time rates specified in (A) and (B), as measured by the ONE Report System, then as a sole and exclusive remedy, Subscriber will receive from ONE **Services Credit** in an amount equal to 5% of the total fees paid to ONE for the Mission-Critical Services Add-on for the applicable one-year period.
- This **Remedy** will not include any portion of any fees paid by Subscriber for Production Support services. If Customer is eligible for the Remedy, ONE will issue service credits that can be applied towards a future invoice for Mission-Critical Add-on order. If your Services Period expires or is terminated prior to the issuance of service credits, the service credit will become void as of the date of the expiration or termination.

3. Subscriber's Requirements for Mission-Critical SLA

The following terms apply for Subscriber's requirements for Mission-Critical SLA:

- Subscriber will deploy the Product in accordance with the reference architecture;

- Subscriber will install the same versions of component software as those verified and certified by ONE and tested in the test and staging environments;
- All Subscriber personnel operating the infrastructure should have received the Product training, and have the required access and permissions to the platform to effectively troubleshoot the reported issue;
- Subscriber should have a HA environment in place that is tested every three months;
- Subscriber should have redundancy built in at both the hardware and the system layers that will allow for services to be failed over to an alternative host or location and to continue to operate with the same level of functionality; and
- Subscriber will act as the single point of contact if ONE is required to work with Subscriber's other vendors in connection with the Restoration.