



Mellanox Support and Services User Guide

Rev 2.3

www.mellanox.com

NOTE:

THIS HARDWARE, SOFTWARE OR TEST SUITE PRODUCT (“PRODUCT(S)”) AND ITS RELATED DOCUMENTATION ARE PROVIDED BY MELLANOX TECHNOLOGIES “AS-IS” WITH ALL FAULTS OF ANY KIND AND SOLELY FOR THE PURPOSE OF AIDING THE CUSTOMER IN TESTING APPLICATIONS THAT USE THE PRODUCTS IN DESIGNATED SOLUTIONS. THE CUSTOMER'S MANUFACTURING TEST ENVIRONMENT HAS NOT MET THE STANDARDS SET BY MELLANOX TECHNOLOGIES TO FULLY QUALIFY THE PRODUCT(S) AND/OR THE SYSTEM USING IT. THEREFORE, MELLANOX TECHNOLOGIES CANNOT AND DOES NOT GUARANTEE OR WARRANT THAT THE PRODUCTS WILL OPERATE WITH THE HIGHEST QUALITY. ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT ARE DISCLAIMED. IN NO EVENT SHALL MELLANOX BE LIABLE TO CUSTOMER OR ANY THIRD PARTIES FOR ANY DIRECT, INDIRECT, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES OF ANY KIND (INCLUDING, BUT NOT LIMITED TO, PAYMENT FOR PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY FROM THE USE OF THE PRODUCT(S) AND RELATED DOCUMENTATION EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.



Mellanox Technologies
350 Oakmead Parkway Suite 100
Sunnyvale, CA 94085
U.S.A.
www.mellanox.com
Tel: (408) 970-3400
Fax: (408) 970-3403

Mellanox Technologies, Ltd.
Hakidma 26
Ofer Industrial Park
Yokneam 2069200
Israel
www.mellanox.com
Tel: +972 (0)74 723 7200
Fax: +972 (0)4 959 3245

© Copyright 2015. Mellanox Technologies. All Rights Reserved.

Mellanox®, Mellanox logo, BridgeX®, ConnectX®, Connect-IB®, CoolBox®, CORE-Direct®, GPUDirect®, InfiniBridge®, InfiniHost®, InfiniScale®, Kotura®, Kotura logo, MetroX®, MLNX-OS®, PhyX®, ScalableHPC®, SwitchX®, TestX®, UFM®, Virtual Protocol Interconnect®, Voltaire® and Voltaire logo are registered trademarks of Mellanox Technologies, Ltd.

CyPU™, ExtendX™, FabricIT™, FPGADirect™, HPC-X™, Mellanox Care™, Mellanox CloudX™, Mellanox Open Ethernet™, Mellanox PeerDirect™, Mellanox Virtual Modular Switch™, MetroDX™, NVMeDirect™, StPU™, Switch-IB™, Unbreakable-Link™ are trademarks of Mellanox Technologies, Ltd.

All other trademarks are property of their respective owners.

Table of Contents

About this Manual	7
1 Mellanox Hardware Warranty.....	8
1.1 Standard Hardware Warranty.....	8
1.2 Factory Repair Warranty	8
1.3 Advanced Replacement Warranty.....	8
1.3.1 Factory Repair vs. Advanced Replacement	8
1.4 Return Material Authorization (RMA)	9
2 Mellanox Technical Support	10
2.1 End User Support	10
2.2 Partner Support	10
2.3 Support Level Agreements	10
2.3.1 Bronze Support.....	11
2.3.2 Silver Support	11
2.3.3 Gold Support.....	11
2.3.4 SilverPlus and GoldPlus	12
2.4 Online Support.....	13
2.5 Contact Mellanox Support	Error! Bookmark not defined.
2.5.1 Mellanox Support Hours of Operation	Error! Bookmark not defined.
2.5.2 Non-Technical Issues/Requests	14
2.6 Support Terminology	14
2.6.1 Contract Number	14
2.6.2 Service Request (SR) / Case / RMA	14
2.7 Mellanox Call Center	15
2.8 Software Updates	15
3 Mellanox Support and Warranty Terms and Conditions.....	16
3.1 Software Policy	16
3.2 Third Party Products	16
3.3 Onsite Spares/Replacements.....	16
3.4 Support Contract Transferability.....	17
3.5 Support and Warranty Coverage and Limitations	17
3.6 Language	18
4 Mellanox Service Requests/Cases.....	19
4.1 Before contacting Mellanox Support.....	19
4.1.1 Online Knowledge.....	19

- 4.1.2 Determine the Nature of the Problem 19
- 4.2 Case/RMA Online Management..... 19
- 4.3 Logging a Case/SR 20
- 4.4 Severity Levels 20
- 4.5 Support Response Time..... 22
- 4.6 Remote Support Assistance (WebEx)..... 23
- 4.7 Resolving a Case..... 23
- 4.8 Closing a Case 23
- 4.9 Customer Satisfaction Survey 23
- 4.10 Service Request Handling Process 24
- 4.11 Priority 1 Service Requests: Escalation Process 25
 - 4.11.1 Responsibilities..... 25
 - 4.11.2 The Process..... 25
- 5 Mellanox Support Contract Renewal 26**
 - 5.1 How to Renew or Upgrade a Contract..... 26
- 6 Mellanox Global Services..... 28**
 - 6.1 Mellanox Care - Monitoring & NOC Services 28
 - 6.2 Onsite Services..... 28
 - 6.3 Mellanox Academy - Education and Training 28
 - 6.4 Mellanox Community 28

List of Figures

Figure 1: Service Handling Process	24
Figure 2: P1 Case Escalation Process	25

List of Tables

Table 1: Mellanox Support Level Agreement Coverage	12
Table 2: Service Request Severity/Priority Levels	21
Table 3: Support Response Time.....	22
Table 4: P1 Case Escalation Responsibilities	25

About this Manual

This document is an overview for the different services and support provided by Mellanox Technologies to its customers. The reader can find more elaborated information about the different topics in the links and references provided throughout the document.

Audience

This document is intended for Mellanox potential and existing customers.

Document Conventions

The following lists conventions used in this document.



NOTE: Identifies important information that contains helpful suggestions.

Abbreviations and Terms

Abbreviation/Term	Meaning/Definition
TAC	Technical Assistance Center
SR	Service Request
RMA	Return Materials Authorization
SLA	Support Level Agreement
DOA	Dead On Arrival
GA	General Availability

Related Documentation and References

For additional information, see the following documents and references:

- [Return Material Authorization \(RMA\)](#)
- [Mellanox Support and Services FAQs for Resellers and End Users](#)
- [Mellanox Bronze, Silver, Gold and Support Plus \(Silver and Gold Plus\)](#)
- [Mellanox Care Product Brief](#)
- [Mellanox Value Added Services & Support](#)

1 Mellanox Hardware Warranty

1.1 Standard Hardware Warranty

Upon purchasing hardware, one year of hardware warranty is granted to the customer. Mellanox return-and-repair service is managed by Mellanox TAC (Technical Assistance Center). If a product malfunctions, the TAC will assist the customer remotely to identify/troubleshoot the failure. If the failure is identified as remotely unfixable, an RMA (Return Materials Authorization) will be issued. Mellanox default Hardware Warranty is Factory Repair 14 Days Warranty (section [1.2 "Factory Repair Warranty"](#)) unless the support contract/SLA of the customer state otherwise, or if the hardware is DOA (Dead on Arrival). If a hardware failure is reported to Mellanox by the customer within 90 days since shipping (DOA) the hardware to the customer site, and the failure is confirmed by Mellanox TAC, the customer is then entitled to Advanced Replacement Warranty (section [1.3 "Advanced Replacement Warranty"](#)).

1.2 Factory Repair Warranty

Once an RMA request is approved, the customer is requested to ship the faulty asset to Mellanox within 30 days. Once the faulty asset is received by Mellanox, the replacement asset will be shipped to the customer within 14 days.

1.3 Advanced Replacement Warranty

If the customer reports an asset as faulty within 90 days since the day the asset was firstly shipped (DOA) to the customer, Mellanox will replace the asset under Advanced Replacement warranty. Mellanox will ship the replacement asset within the next business day after validating the fault, and the customer is requested to ship the faulty asset back to Mellanox within 30 days. Mellanox is responsible for the shipping charges from and back to the customer. Advanced Replacement type of warranty is the default type of warranty in some SLA contracts.

1.3.1 Factory Repair vs. Advanced Replacement

Factory Repair mainly means that upon approving the RMA request by Mellanox Support TAC, the customer is requested to ship the faulty asset to Mellanox first in order for Mellanox to ship the replacement asset back to the customer. Advanced replacement mainly means that Mellanox will ship the replacement asset to the customer within one business day since the day of the RMA approval, and the customer can ship the faulty asset after receiving the replacement asset first.



NOTE: For more details, please refer to [Return Material Authorization \(RMA\)](#) document.

1.4 Return Material Authorization (RMA)

In order to return a product to Mellanox Technologies for repair or replacement, the customer must first submit an online RMA request at:

http://www.mellanox.com/page/rma_form

The customer must fill in the RMA form completely and accurately. The customer may also check their warranty coverage by simply entering the relevant serial numbers at:

http://support.mellanox.com/SupportWeb/service_center/SerialCheck

In addition, it is recommended to troubleshoot the relevant assets before submitting an RMA. The troubleshooting steps can be found at:

http://www.mellanox.com/page/rma_checklist

Upon submitting an RMA, Mellanox Support will validate the Warranty status of the products based on the serial numbers provided. Mellanox support may also contact the customer for further troubleshooting and/or for querying more relevant information about the RMA request and assets involved.

Once the RMA is approved, an RMA number is issued. The customer will receive an email notification with RMA confirmation letter containing the RMA details and basic shipping instructions.

The status of an RMA request can be checked online via [Mellanox Customer portal](#).



NOTE: For more details, please refer to [Return Material Authorization \(RMA\)](#) document.

2 Mellanox Technical Support

2.1 End User Support

Mellanox Standard Support packages provide protection for end-users' system hardware and software components. Mellanox's Technical Assistance Centers (TAC) are here to assist the customer with all the technical needs.

End-User Support Elements:

- Return Material Authorization (RMA)
- Software maintenance including updates and bug fixes
- Customer Portal access to files, downloads, knowledge base, best practices, documents search, and web cases
- Web-based technical training
- TAC eSupport via e-mail and Web
- Toll free TAC access

2.2 Partner Support

Mellanox Partner Assist Support is designed to augment Mellanox's many service partners around the globe. This program provides Mellanox service partners with hardware and software protection as well as access to Mellanox senior global support experts to back partners' every need. In addition, Partners can take Mellanox Technical Training Certification programs to insure they have everything they need to deliver end-user support with confidence.

Partner Support Elements:

- Advance hardware replacement
- Software maintenance including updates and bug fixes
- Customer Portal access to files, downloads, knowledge base, best practices, documents search, and web cases
- Web-based technical training
- Level 3 TAC eSupport via e-mail and Web
- Level 3 toll free TAC access

2.3 Support Level Agreements

Mellanox Technologies provides its end-users with several levels of support agreements options in order to meet the customer' expectations and needs. The customer can purchase one of the following levels of support through Mellanox or through an authorized reseller or OEM.

Aside from the one year limited warranty on all Mellanox hardware, the customer are not entitled to support unless the customer has purchased support contract (i.e. SLA). Mellanox

will use reasonable efforts to provide support services as described in the purchased SLA terms and conditions (e.g., Bronze, Silver and Gold).

Mellanox offers 3 main Service Level Agreements:

- Bronze – available for End-User support program
- Silver – available for End-User and Partner Assist programs
- Gold – available for End-User and Partner Assist programs.
- [Mellanox SupportPlus](#) – available for Silver and Gold

Each support level provides a different level of Support Assistance for hardware platform, firmware, drivers, protocols and software. The customer may elect to acquire an SLA for a period of one year, or an extended SLA for a period of up to five years. During the SLA period, Mellanox will provide support in order to assure its products operate substantially in accordance with the software specifications.

2.3.1 Bronze Support

The Bronze support program is Mellanox's basic level support package, tailored for system administrators that are self-sufficient in supporting their Mellanox infrastructure, but who would also like to augment support for hardware trouble shooting and replacement for hardware components in a timely manner. The Bronze support package does not cover support for host software stacks or fabric management software. The Response time is within 24 hours.

2.3.2 Silver Support

The Silver support program is Mellanox's most popular support package and it provides complete end-to-end support for Mellanox solutions. Mellanox end-to-end solutions provide the highest efficiency, reliability and ROI, allowing system administrators to maximize the use of their investment in Mellanox solutions. The Silver support package is ideally suited for delivering the best value and optimal use of Mellanox infrastructure. The Silver level support package is available for hardware, host stack and fabric management software. To provide the complete maintenance coverage that is needed to protect the investment, the customer should purchase a full package that includes the onsite next business day or 4 hour response time (section [2.3.4 "SilverPlus and GoldPlus"](#)).

2.3.3 Gold Support

The Gold support program is the Mellanox premium service program for mission critical deployments where a small percentage of down time could result in a significant loss to businesses. The Gold package provides 24/7 hotline support and 30 minutes response time for severity level 1 (fatal) case and up to 2 hours response time for any other severity case. The Gold level support package is available for hardware, host stack and fabric management software. For complete coverage, Gold support needs to be purchased for all components of the solution.

2.3.4 SilverPlus and GoldPlus

The worldwide SilverPlus and GoldPlus programs are Mellanox's standard packages with an additional value add component. Mellanox contracts its certified engineers from a global network of companies, all strategically located to quickly respond to the customer's support calls. They specialize in troubleshooting and on-site repair.

Support Plus is not available for Partner Support offerings nor is it available on field replacement units. This is a complete support plan package. These enhanced offerings are only available on new purchases of Mellanox Products that have Silver and Gold level packages available. Some hardware renewals may qualify, end of life products are excluded.

SupportPlus Elements:

Next Business Day (NBD) On-site Support

- Available Monday through Friday, 8:00am to 5:00pm local time.
- Diagnostic tests and identification of any required replacement part(s) must be completed by 3pm local time to schedule next business day on-site support. Diagnostic tests completed after 3pm local time will result in second day on-site support.
- Replacement parts must be on-site before certified engineers are dispatched. (On-site spares are recommended).

4-Hour On-site Support

- On-site response within four hours (“4HR”), after the diagnostic test is complete.
- Replacement parts must be on-site before certified engineers are dispatched.
- 4-Hour on-site support is available 24/7/365.
- If the replacement part is not on-site, Mellanox will dispatch prepared certified engineers as soon as parts arrive.

Table 1: Mellanox Support Level Agreement Coverage

Features	Bronze (HW only)	Silver (HW/SW)	Gold (HW/SW)
Software/ Firmware Updates	✓	✓	✓
Access to Customer Support Portal (My Mellanox)	✓	✓	✓
Phone Support Access		9AM-6PM Local TAC business hours	24/7
Email/web/Toll free hotline	✓	✓	✓
Call back response time	24H	4H	2H
Product Coverage	Hardware/Firmware	Hardware/Firmware/ Software	Hardware/Firmware/ Software

Features	Bronze (HW only)	Silver (HW/SW)	Gold (HW/SW)
Advanced HW Replacement	✓	✓	✓
SupportPlus 4H/NBD on-site support	N/A	Yes – Additional charges apply	Yes – Additional charges apply
On-site professional services add-on	Yes – Additional charges apply	Yes – Additional charges apply	Yes – Additional charges apply

2.3.4.1 What to Expect From Our On-Site Technicians

- Mellanox contracts its certified engineers from a global network of companies, all strategically located to quickly respond to the customer's support calls. They specialize in troubleshooting and repairing computers.
- In the event, if additional support for the software or operating system is needed, Mellanox certified engineers can escalate the support call to quickly resolve the problem.



NOTE: Please refer to the following documents for more info about Mellanox support and services:

[Mellanox Support and Services FAQs for Resellers and End User](#)

[Mellanox Value Added Services & Support](#)

[Mellanox Bronze, Silver, Gold and Support Plus \(Silver and Gold Plus\)](#)

2.4 Online Support

The purchase of any pre-defined Support contract (SLA) allows access to a powerful online customer support portal located at <http://www.mellanox.com/support>.

Mellanox's online Customer Resource Management (CRM) system provides a comprehensive online tool to manage all of the customer's support issues in one place and from anywhere that suits the customer. The online customer support portal provides the following benefits:

- Complete case management including reporting support issues and tracking their progress
- A searchable knowledge database to find solutions, best practices and worthy information
- Easy access to documentation and drivers/firmware/software downloads
- Subscription to automatic proactive alerts when new releases are available
- Built-in RMA request and tracking system

2.5 Contact Mellanox Support

The customer can contact Mellanox's support in three ways:

1. Email: support@mellanox.com
2. Web: open a case at [My Mellanox Customer Portal](#) ("CASES" tab)
3. Phone:

Global TAC Support: +1 (408) 916 0055

Toll-free (USA only): 86-Mellanox / *##-866-355-2669

*## stands for IDD (International Direct Dialing prefix)

2.5.1 Mellanox Support Hours of Operation

US TAC: 9:00-18:00 (GMT -05:00) Eastern Time, Monday-Friday

EMEA TAC: 9:00-18:00 (GMT +02:00) Jerusalem Time, Sunday-Thursday

APAC TAC: 9:00-18:00 (GMT +08:00) Beijing Time, Monday-Friday

2.5.2 Non-Technical Issues/Requests

If the customer has non-technical questions, the following departments can be contacted by email:

Contracts Department: contracts@mellanox.com

Licensing Department: license@mellanox.com

Other queries: info@mellanox.com

2.6 Support Terminology

2.6.1 Contract Number

The support contract number is provided to the customer upon purchasing a support contract.

Why is it important?

- To verify the eligibility of the support service request and coverage.
- To identify your account support information.
- Allows tracking of updates and patches for your products and license, as well as HW, RMA and SW license eligibility.

Where can it be found?

In the new contract registration notification, contract administration, and by contacting Mellanox customer service.

2.6.2 Service Request (SR) / Case / RMA

A case is the customer's assistance request application to Mellanox support center.

- When an email is sent to support@mellanox.com or a case/RMA is open via Mellanox [Customer Portal](#), the system automatically opens a case for the customer.
- For each support case/RMA there is an identification number called: "Case Number".

- This number helps Mellanox Support and the customer to track and monitor the case efficiently.
- Each case opened is automatically associated with the customer's account contract.

2.7 Mellanox Call Center

Mellanox Call Center provides permanent manned support services for Mellanox customers throughout the year (7/24/365) based on the appropriate SLA purchased.

The Call Center is the customer's point of contact (mostly for emergency cases) for initiating and advancing technical related and support administrative issues, forwarding and distributing them to relevant professional experts according to defined procedures.

Call Center activities are designed to accomplish the following targets:

- Provide systematic and efficient call handling services to Mellanox the customer
- Maintain information flow according to developing situations
- React to cases according to predefined procedures

Upon receiving a customer call reporting a problem, the Call Center representative will ask the customer for their contact name and company in order to verify the SLA, and will then open a new case if needed. The caller will be interviewed to collect the needed information that will be stored in the case.

The following information is mandatory to continue handling the case:

- Product: which product(s) is/are affected?
- Severity: Low, Medium, High or Fatal
- Description: a brief description of the problem
- Contact details for further communication with the customer

The Call Center representative should notify the customer – by Email/Phone – with the case ID #.

2.8 Software Updates

Mellanox constantly enhances its products to production challenges. The customer should regularly upgrade the products to ensure that the systems have the maximum level of protection and performance. Upgrading also minimizes the possibility of encountering an issue that has already been addressed in a previous version.

To check for available software updates (patches, upgrades, etc.), the customer can go to Mellanox [Customer Portal](#) and check the News view at the home page. A monthly Newsletter with all recent updates is also sent to the customer. In addition, the customer can easily subscribe to products at the portal in order to get latest release updates to your email ("MY SUBSCRIPTIONS" tab).

3 Mellanox Support and Warranty Terms and Conditions

Upon purchasing Support/Warranty, the customer should be aware of the following default general terms and condition, unless their support contract states otherwise:

- The customer is entitled to the terms and conditions of their Support Contract in terms of Mellanox Support response time, case escalation, shipping replacement, etc.
- Purchasing a warranty means the customer agrees to allow Mellanox Support to perform troubleshooting and diagnostics to determine the root cause and take appropriate actions to resolve the problem.
- Normal business hours for many sites are Monday through Friday, 8:00am to 5:00pm. Technical service representatives are on-call after normal business hours.

3.1 Software Policy

Each of Mellanox products and their associated Software components has term limitations on software maintenance. Mellanox provides software maintenance on all GA versions as well as on 2 previous versions. Exceptions are addressed by specific contract only.

Once a particular software version is declared as EOL, it is no longer maintained. The customer may however download the recent software release or previous releases (if available) from the [Customer Support Portal](#).

Mellanox does not maintain older versions of EOL (End of Life) products. Please refer to the [EOL page](#) for more details.

Silver & Gold Support Services require maintaining software and Silver & Gold Supported Systems at the above specified minimum release levels or configurations. Silver & Gold Support must also install remedial replacement parts, patches, software updates or subsequent releases as directed by Mellanox in order to keep the customer's systems eligible for Silver & Gold Support Services.

3.2 Third Party Products

Mellanox Support Services do not include warranty or repair service or any other services for third party products. Mellanox Support Services may act as a problem handover facilitator between the customer and the other vendor to obtain the third party service or Support the customer may be entitled to receive under their agreements with those other vendors. It is the customer's responsibility to buy and pay for warranty or service contracts for those third party systems. Mellanox is not responsible for the performance of other vendors' products and services and Mellanox is not responsible for any service claims related to those third party products.

3.3 Onsite Spares/Replacements

For Gold Support, Mellanox highly recommends purchasing onsite spare kit. The purchase price for spare parts, including any parts on any recommended spares Mellanox may supply, are not included in the price of the Gold Support.

The customer is responsible for buying any necessary spare parts and for warehousing, planning, ordering, and inventory for any necessary spare parts.

3.4 Support Contract Transferability

If the customer sells or transfers any Hardware to any third party, Mellanox will provide re-installation and re-certification services to the third party purchaser or transferee in accordance with Mellanox terms and conditions. The purchaser has to:

1. Meet Mellanox credit requirements
2. Obtain a new hardware or software support contract from Mellanox
3. Issue a new/separate agreement with Mellanox to receive re-installation and re-certification services
4. Obtain "Good Condition" re-certification of the products as installed
5. Pay any support reinstatement fees and purchase at least a one (1) year term of annual Support from Mellanox commencing upon the date of product transfer.

The customer's remaining outstanding terms of Support are not transferable. Notwithstanding the foregoing, Mellanox reserves the right to refuse to grant Hardware and Software Services to a proposed purchaser or transferee as determined at Mellanox discretion.

3.5 Support and Warranty Coverage and Limitations

Mellanox Service Level agreement determines the services provided and the period of warranty coverage. Mellanox will have no support obligations for any conditions attributable to:

- Services requested outside of the contracted hours of coverage
- Negligence or mishandling of the products
- Product damages caused by acts of nature such as electrical storms, floods, fire, etc.
- Product damages caused by acts of war, terrorism or criminal acts
- Use of the products other than in accordance with Mellanox official specifications
- Modifications, alterations or repairs to the products made by a party other than Mellanox engineers or Mellanox authorized partners
- Any failure caused due to lack of compatibility, by the customer or third party, with the environmental and storage requirements for the products specified by Mellanox, including, without limitation, temperature or humidity ranges; or use of the product with any non-Mellanox apparatus, data or programs outside the typical, recommended or reasonably anticipated use of the products within their specifications
- Recovery and support of the operating system, other software and data
- Operational testing of applications or additional tests requested or required by the customer

- Individual hardware products that cannot, in supplier's opinion, be properly repaired due to excessive wear or deterioration
- Customer unwilling or unable to provide adequate debug and environment information for proper support

3.6 Language

All Support will be provided in English.

All related documents will be provided in English.

4 Mellanox Service Requests/Cases

Mellanox customers have a direct access to Mellanox Customer Support for any technical queries or issues. The customer can contact Mellanox support either by phone or email/portal (section 1.5 "[Contact Mellanox Support](#)"). Nevertheless, in order to save time and effort for the customer, the below sub-sections provide suggestions and tips on steps that can be taken and considered by the customer before contacting Mellanox Support.

4.1 Before contacting Mellanox Support

4.1.1 Online Knowledge

Other than the available downloads, documents and file at www.mellanox.com and at Mellanox [Customer Portal](#), the customer can review, read and check for online solutions and relevant information by simply using the search bar and the "KNOWLEDGE" tab the [Customer Portal](#). Mellanox holds a great deal of online solutions, FAQs, configuration procedures, common errors, advisories, troubleshooting and more. Prior to contacting Mellanox Support, the customer can search for the required info online and save valuable time and effort.

4.1.2 Determine the Nature of the Problem

Before reaching out to Mellanox Support for assistance, it is highly recommended to properly determine the nature of the problem. Once the nature of the problem is determined, the customer is expected to provide comprehensive and informative information about the observed problem/issue. The customer may refer to the following sample queries:

- What is the expected performance vs. the currently observed performance?
- When was the last time the network functioned properly?
- Were there any changes/updates in the fabric recently?
- Can the issue/problem observed be reproduced?
- To what extent does the issue influence the fabric?

4.2 Case/RMA Online Management

To create, monitor and track the status of Service Request (case) and RMAs, the customer can log in to Mellanox [Customer Portal](#) and check "Cases" or "RMA" tabs.

The portal allows the customer to:

- Create a Service Request and/or submit and RMA
- Set a severity level when you create a case
- Upload attachments such as log files, screen captures, and network diagrams
- Update requests with comments

- Receive proactive email notifications on open service requests
- Change email settings and update account information in your ticket
- Track the status of your service requests / RMAs
- View details for a specific service request by clicking on it
- See comments added by Support or add information that may help us resolve your issue

4.3 Logging a Case/SR

When logging a case with Technical Support, all pertinent information should be in hand to expedite case resolution. The below Technical Support Checklist can be referred to by the customer:

- Product number and serial number for us to quickly know your product
- Version number/Service pack level
- Messages displayed around the time this situation occurred
- Has this happened before? Can it be re-created?
- How long has this been going on?
- Operating system and patch level?
- When did this happen?
- Were there any possible changes before or around the time this occurred?

Once the customer's case has been logged, it will be assigned a service ticket number and an appropriate Technical Support engineer. The customer is expected to record their service ticket number on their Technical Support Checklist. This number is a quick-reference number as the customer may have to address this number when contacting Mellanox Support.

4.4 Severity Levels

Each case/SR, received via phone or by email/web, opened by the customer, has a different severity and priority level. Mellanox TAC, in cooperation with the customer, will determine the severity of the case/SR accordingly. For eligible support contracts, Mellanox is committed to provide 24/7 support until the issue is resolved or as long as useful progress can be achieved. The customer is responsible for providing Mellanox Support with a contact person, either on site or by pager, to assist with data gathering, testing and implementation of solutions. The customer is also expected to determine the case severity with extreme care so valid and justified resources can be allocated accordingly. The table below summarizes the different levels of severity as pre-determined by Mellanox.

Table 2: Service Request Severity/Priority Levels

Priority Level	Definition
Priority One/Severity Level 1 – Fatal*	<ul style="list-style-type: none"> • Enterprise wide failure • Enterprise Network/SAN/NAS System is down and inoperable (hardware or software) • Critical business impact • Problem is causing hangs and/or data corruption, and/or is security related, without workaround • A critical application is unusable • Workload is totally disrupted and no work is possible • No workaround or immediate solution is available
Priority Two/Severity Level 2 – High	<ul style="list-style-type: none"> • Significant business impact • Partial, critical loss of functionality of the network/SAN/NAS (Single product is down). • Problem prevents end user from using machine as originally intended • Useful production is difficult because system or software is failing to perform correctly and/or reliably • Regular Failures are occurring, and system is not completely unusable • Problem is causing hangs and/or data corruption, and/or is security related • No acceptable workaround is available. Yet, operation can continue restrictedly.
Priority Three/Severity Level 3 – Medium	<ul style="list-style-type: none"> • Some business impact • Non-critical loss of functionality or performance degradation of the network/SAN/NAS (limited use). • Inconvenience or performance problems (but system is otherwise functional and able to be used for its intended purpose) • System or software is not operating in a normal manner • There is a workaround or the problem is very intermittent
Priority Four/Severity Level 4 – Low	<ul style="list-style-type: none"> • Minimal business impact • Minor issues such as errors in the documentation, general usage questions, and recommendations for product enhancements and/or modifications. • Causing error messages or other nuisance type problems • System is useable • The problem is causing only a minor inconvenience, or the case is a request for information or a new feature

4.5 Support Response Time

The table below summarizes the response time of Mellanox Support for each service request/case priority in coordination with the Support Level Agreement of the customer.

Table 3: Support Response Time

Service Level Agreement	Priority Level	Technical Response Business Hours	Relief Goals	Permanent Fix
GOLD Support	Priority One	30 Min.	4 hrs.	2 business Days
	Priority Two	2 hrs.	8 hrs.	3 business Days
	Priority Three	4 hrs.	1 business days	10 business Days (2W)
	Priority Four	1 business days	6 business days (1W)	Next available release
Silver Support	Priority One	2 hrs.	24 hrs.	6 business Days (1W)
	Priority Two	4 hrs.	48 hrs.	6 business Days (1W)
	Priority Three	1 business days	6 business days (1W)	Next available release
	Priority Four	2 business days	N/A	Next available release
Bronze Support	Priority One	12 hrs.	24 hrs.	90 days
	Priority Two	1 business days.	6 business days (1W)	90 days
	Priority Three	1 business days	14 business days	Next available release
	Priority Four	2 business days	N/A	Next available release



NOTE: The above timeframes are guidelines only and are not a substitute for sound business practices. Please also note that for Silver/Bronze contracts priority 2-4 are subjects to normal business hours.

4.6 Remote Support Assistance (WebEx)

With the customer's permission, Mellanox engineers may also open a remote console connection to view the customer's desktop and work directly, in cooperation with the customer, in order to resolve the issue.

4.7 Resolving a Case

When reaching out to Mellanox Technical Support, the TAC will verify the customer Support Contract coverage, case details and priority. Resolving a case during the initial call/email may not be possible at all times. Additional information and tests may be required to better handle and address the issue. The Technical Support engineer may require additional expertise to resolve the customer's case and may transfer the case to an engineer that specializes in that product.

4.8 Closing a Case

A case is closed when at least one of the following conditions is met:

- The resolution provided by Mellanox Support has resolved the issue
- The customer informs Mellanox Support that the case is no longer an issue
- The customer and Mellanox Support agree that the issue is a result of a problem that cannot be isolated
- Repeated unanswered attempts for status query by Mellanox Support

4.9 Customer Satisfaction Survey

Upon closing a case, the customer may receive a survey from Mellanox. The request for the web-based survey will be delivered via an email invitation. The information in the survey is confidential and is used only for serviceability improvements and to ensure that the customer is satisfied with the service they received. Survey information is not shared with any entity outside of Mellanox.

4.10 Service Request Handling Process

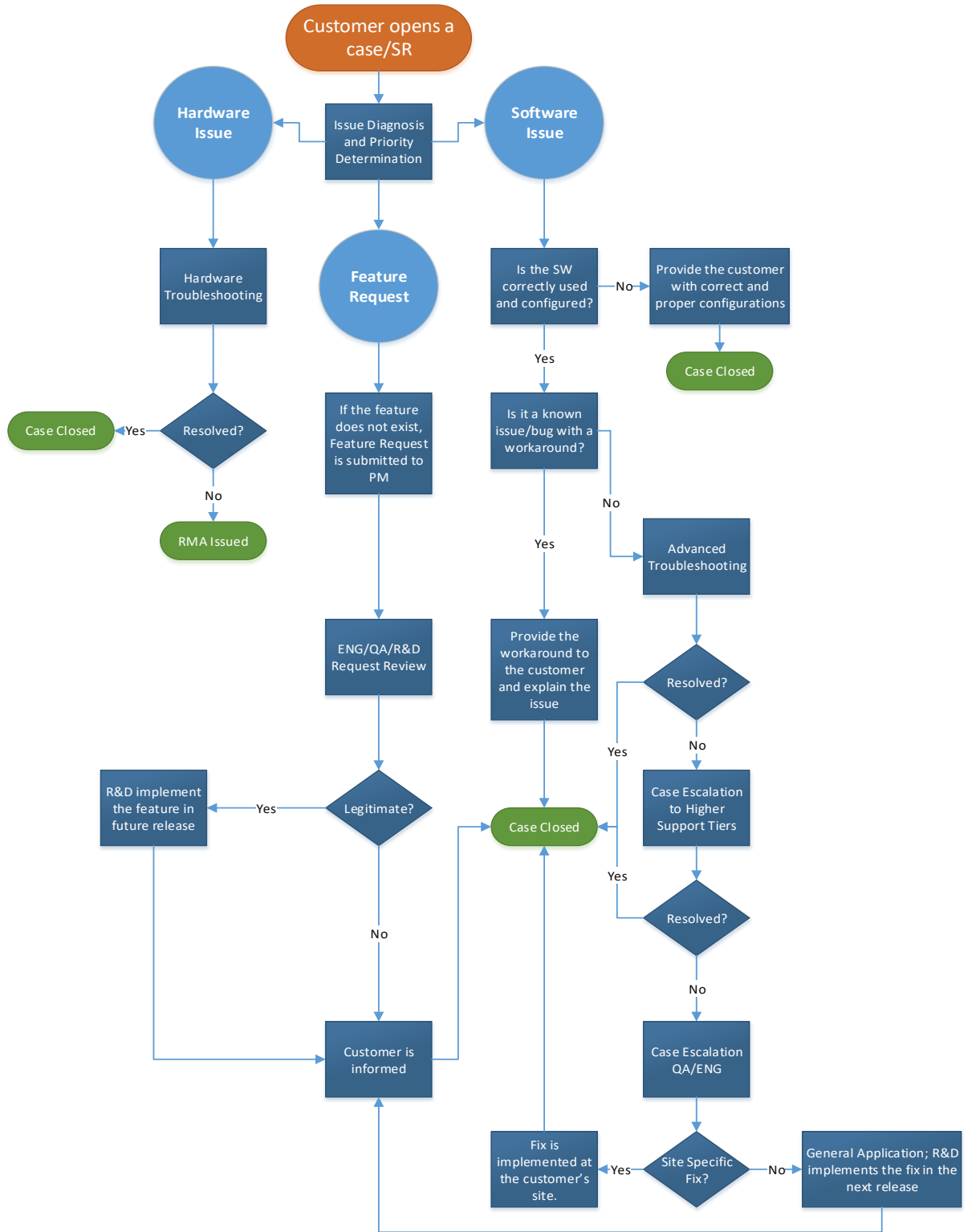


Figure 1: Service Handling Process

4.11 Priority 1 Service Requests: Escalation Process

P1 Service Request escalation policy is a series of guidelines designed to resolve critical-impact service situations classified as having the highest degree of "urgency" as viewed by the customer who are entitled to that that level of support. The guidelines for SR Priority 1 are followed by Mellanox TAC, Field Sales, Support and Product Engineering, in order to resolve the customer's case efficiently, effectively and promptly.

4.11.1 Responsibilities

Table 4: P1 Case Escalation Responsibilities

Task	Owner
Managing the overall escalation process	Mellanox TAC
Providing replacement assets	Mellanox Operations Logistics
Implementation of solution/resolution	Support and Product Engineering

4.11.2 The Process

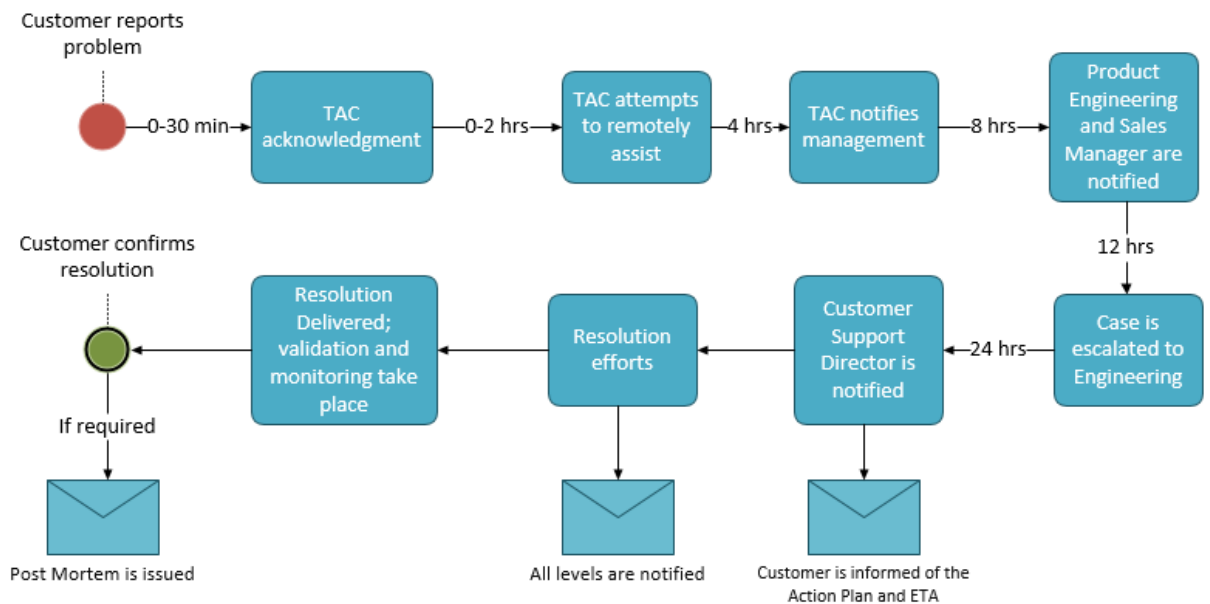


Figure 2: P1 Case Escalation Process



NOTE: Please refer to section [2.2 "Severity Levels"](#) to see the priorities set by Mellanox for the different levels of case severity.

5 Mellanox Support Contract Renewal

Upon purchasing Mellanox products, the customer may choose the service and support contract they find suitable for their needs (section [1.1 "Service Level Agreement"](#)). The contract is automatically activated upon shipping the products to the customer's site. Each contract has an expiration date as it is initially agreed with the customer in accordance with the contract terms and conditions.

Renewing the support contract ensures the protection of the customer's investment and the continued access to software releases and technical support. The customer may also consider upgrading their contract and/or warranty to get the most from Mellanox services and support.



NOTE: The customer has to ensure that Mellanox has their updated contact details in order for Mellanox to notify the customer 90 days before the contract expiration date.

5.1 How to Renew or Upgrade a Contract

To renew/upgrade a contract, the customer have the following options:

- a. Contact Mellanox Contracts Department directly at contracts@mellanox.com
- b. Contact Mellanox Reseller
- c. Renew the contract/s online via [My Mellanox Customer Portal](#)

Please read [Mellanox Online Renewal System FAQ](#) for more details about the process.

Important notes about contract renewal and upgrade:

- The customer have to provide PO to Mellanox or Mellanox reseller upon each renew/upgrade contract request.
- The customer can upgrade their contract from Bronze to Silver, or from Silver to Gold, as well as from Silver/Gold to SilverPlus and GoldPlus.
- If the contract expires without renewal, the customer may not longer have access to Customer Support Portal, software downloads and customer support.
- There is no penalty if the contract renewal does not happen right away after the expiration date. However, contracts renewed at a later date will be back-dated to the original expiration date and will be valid for one year.
- If the customer have different serial numbers purchased at different times, the customer may renew the support contract for all the products so that all the product will have the same support expiration date.
- Upon renewing a contract, all serial numbers entitled to that contract will have the same support expiration date.

- If the customer purchase additional products, the new products can be simply included in the next contract renewal.
- The customer may not renew support for only some of the serial numbers for which they have a renewal. Mellanox only supports clusters in their entirety.
- It is recommended to renew contracts a few weeks before expiration to ensure continuous access to support and updates. The contract will extend out to one year (or more) from the current expiration date.

For any other queries related to the customer' existing contract, the customer can contact Mellanox Contracts department directly at contracts@mellanox.com.

6 Mellanox Global Services

Other than Technical Support and Hardware Warranty coverage, Mellanox offers a wide range of great additional services which may fulfil the customer's requests and needs to utilize and maximize their services, productivity, network performance and environment maintenance. Listed below the additional and extra services currently offered by Mellanox with relevant links to pages and documents with additional and elaborated info about each of the services.

Please visit [Mellanox Global Services](#) page and check [Mellanox Global Professional Services User Guide](#) for more details.

6.1 Mellanox Care - Monitoring & NOC Services

Mellanox Care service is a monitoring and NOC service which constantly examine the fabric for any potential malfunctions before they happen. Using the latest and most advanced diagnostic and monitoring tools, Mellanox experts deliver proactive maintenance to prevent potential faults from happening, hence ensuring the functionality of customer's environment and production.

Please visit [Mellanox Care](#) page for more details.

6.2 Onsite Services

Mellanox Onsite or Remote Managed Services enable the customer to focus on their core business while Mellanox does the heavy lifting onsite. This guarantees that the customer's system is always performing at its best, saving the customer valuable time and money in the long run, and increasing the customer' ROI.

Please visit [Onsite Services](#) page for more details.

6.3 Mellanox Academy - Education and Training

Mellanox Academy and Training programs offer the customer frontal or virtual trainings and courses, to provide the customer with exclusive opportunity to gain the required knowledge, practices and in depth understanding related to Mellanox products and technologies. Hence, enriching and empowering the customer's technical skills and knowledge to proficiently meet the technology and business challenges of their organization.

Please visit [Educating and Training](#) and [Mellanox Academy](#) pages for more details and free trainings.

6.4 Mellanox Community

[Mellanox Community](#) is a free and open forum in which the customer may find technical solutions, resources and discussions regarding Mellanox products and related technologies. The customer may also ask questions, exchange ideas and open discussions using the different features and options at the forum.



NOTE: The customer may review the following documents for more info about Mellanox support and services:

[Mellanox Value Added Services & Support](#)

[Mellanox Bronze, Silver, Gold and Support Plus \(Silver and Gold Plus\)](#)