



Mellanox Support and Services User Guide

Rev 1.0

www.mellanox.com

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Purpose

The purpose of this document is to describe Mellanox's General Service Level Agreements Guidelines (SLAG).

Definitions

Abbreviations/Terms	Description
SLAGs	The Service Level Agreements Guidelines that describe a Customer's scope of support to be provided by Mellanox.
Customer	Refers to a customer (end user) that purchases Mellanox hardware or software products.
Mellanox Support Portal or Portal	Web based Customer service portal at: http://mellanox.com/content/pages.php?pg=customer_support
Local Business Hours (LBH)	Normal working hours and days of the work week at the customer location
RMA	Return Material Authorization.
Terms and Conditions	Mellanox's standard terms and conditions of sale applicable to Customer's purchase of any Mellanox hardware or software product. The Terms and Conditions are found at the Mellanox Support Portals.

Terminology

Service Request (SR)	A request for service due to disruption, alteration or dysfunction that affects all or part of the service's functionalities.
Service Level	The level of a quantifiable criterion as set forth in the service level document. This does not make sense.
Initial response	The time as measured from the time the Customer initially contacts the Contact Center until a Mellanox service engineer responds to the Customer's problem.
Workaround	Ad hoc correction made to alleviate the effect of a disruption to normal operation. Typically; it does not involve code changes.
Fix	Service activity that provides a solution to return the Customer's system to normal operations.
Escalation	Interval time before entering the escalation flow.
Next Release (NR)	Release issued to remedy existing software problems. These are made available from time to time as Mellanox Technologies determines that a new release is appropriate to maintain the efficiency of the software.
Hour (H)	Hour during standard working hours.
Day (D)	Day during standard working hours.
Week (W)	A full working week.

1 Overview

1.1 Mellanox Standard Warranty

Mellanox provides a one year limited warranty on all Mellanox hardware at no charge. Our return and repair service is managed by our TAC (Technical Assistance Center) located at our US Headquarters and our APAC/EMEA facility. In the event of a product failure, the TAC will assist you remotely to identify the failed component. If a product failure is identified, an RMA (Return Materials Authorization) will be generated.

Standard warranty provides for a replacement part within the first 30 days and a 15 business day (after receipt of the RMA part) depot repair commitment, for the remainder of the warranty period. Mellanox also warrants that our software will operate in conformance with our documentation for a period of 90 days. Customers should reference the warranty specification for full warranty terms and conditions.

1.2 Mellanox End-User Support

Our End-User Support packages provide protection for your system hardware and software components. Mellanox's TAC centers are here to assist with all your technical needs. From advanced hardware RMA to the latest software patches and bug fixes as well as our renowned best practice guides. Mellanox Global Support has you covered.

- One or three year support options
- Factory repair replacement (for bronze) and Advance Hardware Replacement (priority air ship within 24 hrs of RMA assignment) for Silver and Gold
- Software maintenance - Updates and Bug Fixes
- Support web access - knowledge base, doc search, web case
- Access to On-Line technical Training Center
- TAC eSupport - E-mail/Web
- Toll free TAC access (normal business hours for US/EMEA/APAC TAC centers)
- Committed TAC response (normal business hours for US/EMEA/APAC TAC centers)

1.3 Mellanox Partner Assist Support

Our Partner Assist Support is designed to augment our many service partners around the globe. This program provides Mellanox service partners with hardware and software protection as well as access to our Sr. Global Support experts to back your every need. Add to that our technical training certification programs and your support team has everything needed to deliver end-user support with confidence.

- One or three year support options
- Advance Hardware Replacement (priority air ship within 24 hrs of RMA assignment)
- Software maintenance - Updates and Bug Fixes

- Support web access - knowledge base, doc search, web case
- Access to On-Line technical Training Center
- Level 3 - TAC eSupport - E-mail/Web
- Level 3 - Toll free TAC access (normal business hours for US/EMEA TAC centers)
- Committed TAC response (normal business hours for US/EMEA/APAC TAC centers)

1.4 Several Level Support Agreements

Mellanox Technologies provides End-Use customers several levels of support agreements in order to meet customer expectations from all support aspects. Customers can elect one of the following levels of support:

- 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

Each support level provides a different Level of Support Assistance for Hardware Platform, Firmware, drivers, protocols and software provided support. Each support level's documentation provides more details regarding this matter.

The customer may elect to acquire an SLA for a period of one year, or an extended SLA for a period of up to three years, or extend the existing SLA for a period of up to three years.

During the SLA period, Mellanox shall provide support in order to assure that Mellanox software operates substantially in accordance with the software specifications.

There are two models of Call Center Support coverage, depending on the SLA

- Local Business Hours – 8AM – 5PM
- 7X24X365

In addition, Mellanox offers 'On Site Support' and 'Training courses' (see Additional Services (Additional Cost)).

2 Services and Conditions

2.1 Support Entitlement

Aside from the one year limited warranty on all Mellanox hardware customers are not entitled to support unless the Customer has ordered and paid for Support as provided in the Order. Mellanox will use reasonable efforts to provide support services as described in these Support Terms and Conditions at the level Customer has purchased (e.g., Bronze, Gold, Platinum) for the term Customer has purchased, which commences upon Product shipment.

Support is contacted primarily through Mellanox's web support portal (generally accessible on a 24x7x365 basis except during periodic maintenance or network unavailability) and secondarily through telephone support.

Mellanox's Support obligation is limited to using reasonable efforts to remedy a reported failure of the product to substantially operate in accordance with Mellanox's official specifications (a "problem"). Support does not include Hardware or Software installation, training, consulting services or preventative maintenance.

2.2 Bronze SLA

Under the Bronze Service Level Agreement, Mellanox Technologies will provide:

- Extended Hardware warranty
- Firmware release updates

Mellanox will be responsible for handling all Service Requests (SR) that are related to any firmware bug or strange behavior of the hardware. In case of hardware failure, Mellanox will be committed to the RMA procedure described in Appendix A:

Response time for service requests is listed in the section 4Response Times.

Customer support under the Bronze SLA is provided Monday through Friday, from 09:00 to 17:00 (TAC local Business Hours).

Terms:

Should the problem be insoluble without direct access to the customer's system, then with the customer's approval, Mellanox will use all available remote access abilities to analyze and resolve the customer's problem.

2.3 Silver & Gold SLA's

Under the Gold/Silver Service Level Agreement, Mellanox Technologies will provide:

- Hardware warranty
- Firmware release updates
- Cluster-wide software support

These SLAs also include the investigation and analysis of any problems reported by the customer, which are related to Mellanox firmware images and software stacks as described below:

Mellanox InfiniBand and Ethernet software stacks, including Open Fabrics Alliance Enterprise Distribution (OFED) stacks InfiniBand/Ethernet software drivers:

- Linux, Windows and VMware software drivers
- Mellanox boot over LAN/SAN software
- Mellanox Firmware tools
- FabricIT management tool

The Mellanox support framework includes additional assistance with debugging, troubleshooting, tuning, and topology configuration, according to the customer's needs, covering host, switch and gateway products. Mellanox will attempt to fix or provide a work-around within the time frame mentioned in this SLAG according to his SLA.

In case of hardware failure, Mellanox will be committed to the RMA procedure described in Appendix A:

Response time for service requests is listed in the section Response Times.

Customer support under the Silver SLA is provided Monday through Friday, from 09:00 to 17:00 (customer's local time). Gold Service Level Agreement is 24hours a day seven days a week.

Terms:

Should the problem be insoluble without direct access to the customer's system, then with the customer's approval, Mellanox will use all available remote access abilities to analyze and resolve the customer's problem.

2.4 Software Policy

Each of Mellanox's products and their associated Software components has term limitations on SW maintenance. It is Mellanox's standard policy to provide SW maintenance on all GA versions as well as 2 previous versions. Exceptions are addressed by specific contract only.

Note that once a particular SW version element is retired it is no longer maintained. Customers may however download a SW image of previous releases from our web download pages.

Also note that we will not maintain older versions of the product in an End Of Life (EOL) stage. Please refer to the EOL web page available on our SupportWeb.

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

2.5 Third Party Products

Third Party Products Not Covered. Mellanox Support Services do not include warranty or repair service or any other services for third party products. Mellanox's Support Services may act as a problem handover facilitator between the customer and the other vendor to obtain whatever third party service or Support you may be entitled to receive under your 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 will not be responsible for any service claims related to those third party products.

2.6 Customer Owned Onsite Spares

For Gold Support, Mellanox highly recommends purchasing an onsite spare kit. The purchase price for spare parts, including any parts on any Recommended Spares List that Mellanox may supply to you, is not included in the price for the Gold Support.

Services:

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

2.7 Support NON-TRANSFERABILITY

If Customer sells or otherwise transfers any Hardware to any third party, Subject to availability of resources, Mellanox will provide re-installation and re-certification services to a third party purchaser or transferee of Mellanox Hardware, in each case at Mellanox's current time and material rates provided the purchaser or transferee has:

- Met Mellanox credit requirements
- Obtained a new Hardware or Software support contract from Mellanox
- Entered into a separate agreement with Mellanox to receive re-installation and re-certification services
- Obtained "Good Condition" re-certification of the Products as installed; and
- Paid any Support reinstatement fees and purchased at least a one (1) year term of annual Support from Mellanox commencing upon the date of Product transfer.

Customer's remaining outstanding term of Support is 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's discretion.

2.8 Exclusions

Mellanox will have no Support obligations for any conditions attributable to:

- Services requested outside of the contracted hours of coverage.
- Negligence or misuse or abuse of the Products
- Use of the Products other than in accordance with Mellanox's official specifications

- Modifications, alterations or repairs to the Products made by a party other than Mellanox or a party authorized by Mellanox
- Any failure by Customer or a third party to comply with 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 a Customer
- Individual hardware products that cannot, in Supplier's opinion, be properly repaired due to excessive wear or deterioration

2.9 Language

All Support will be provided in the English language.

All related documents will be provided in the English language.

2.10 Support Renewal

Customers may renew their Hardware and Software Support Services for additional renewal terms following the expiration of the initial term. Additional Support renewal is available for a period of twelve or thirty-six months for the covered hardware and software. All original terms and conditions related Support Services remain in full force and effect for all renewal terms. The renewal terms are listed in Appendix C:

3 Problem Severity

During a Customer's initial phone call to the Support Call Center (Hot Line, Mellanox Portal), the Mellanox System Support Engineer (Tier 1) assigned to the SR and the Customer will determine together the severity of the Customer's SR. The table below summarizes the different levels of problem severity.

Priority Level	Definition
Priority One -Fatal	• 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 -High	• 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, with workaround
Priority Three -Medium	• 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 -Low	• 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 Response Times

The targeted response times for resolving the SR are listed in the tables below per the applicable Service Level Agreement (SLA).

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

5 Getting Support

5.1 Contact Number

Your Mellanox Support Contract Number is your proof of a valid support contract.

Your contract information may be used to submit a support call or access online content quicker.

5.2 SupportWeb

5.2.1 Online Service Request (SR) Case Portal

To create a new Service Request, log in to the SupportWeb Service Portal and click on the My Cases tab.

The Service Request portal allows you to:

- Create a Service request case; please complete all of the required fields by entering the issue details. The more information provided, the better Mellanox Technical Support will be able to assist in finding a solution.
- Set a severity level when you create the ticket
- 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 service requests, log in to the SupportWeb Service Portal and see your Open Service Requests list for the cases that you have logged with Mellanox Support that are currently open and active.
- View details for a specific service request by clicking it on the status screen
- See comments added by Support or add information that may help us resolve your issue

5.3 Mellanox Call Center

Mellanox Call Center provides permanent manned support services for Mellanox customers throughout the year (24*7*365).

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 customers
- Maintain information flow according to developing situations

- React to cases according to predefined procedures

5.4 Call Receiving (CC/SSE)

Upon receiving a customer call reporting a problem, the Call Center representative will ask for a Contact name and company in order to verify the SLA, and will then open a new case. 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 initiator – by Email – with the case ID #.

5.5 Computer Base Training

Mellanox offers CBT's in two formats. Online web based and downloadable executables to allow you to work through the material off-line. This training program for new and experienced users offers a selection of self-paced training resources. These include general tutorials on the architecture, Mellanox products introduction as well as advanced seminar topics on various administration and configurations.

Each course is made up of several lessons offering extensive information about content. You begin and end the lessons at your convenience. For each lesson you will find introductory pages. These pages contain information about the course content, navigation, and links to each lesson.

The modules range from introductory to advanced lessons and cover a variety of subjects including case studies and on-screen simulators. Reference the links to the right for available lessons.

5.6 Download Software Updates

Mellanox constantly enhances its products to production challenges. Regularly upgrading your products ensures that your systems have the maximum level of protection. It also minimizes the possibility of encountering an issue that has already been addressed in a later version.

To check for available software updates (patches, upgrades), log into the SuportWeb Download resource (<https://support.mellanox.com>) and click Errata tab. You can sort the list of Patches by any of the table headings (Name, Product, Modified, etc,) and navigate through the list using the Next and Prev buttons.

5.7 Support Notification Service

In May 2011, Mellanox will launch a new and improved Customer Automated Notification Service that will be available for contracted customers and partner/OEM contacts. This

service notifies a registered customer about recently published support documentation and critical advisories as well as product Errata code.

The Support Notification Service can deliver product information to you by email — End of Life, patch and upgrade notifications, and critical alerts that may require immediate attention. This information can help you get the most out of your Mellanox product and help you avoid problems by keeping you up to date.

For more information, see

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

5.8 Non-Technical Customer Service

If you have non-technical questions regarding your contract, such as recalling a forgotten contract number you can contact contracts@mellanox.com.

You can contact license@mellanox.com for licensing queries; you can contact info@mellanox.com for general sales and other queries.

5.9 On Site Support

If needed, Mellanox senior support professionals are dispatched to your site to resolve mission-critical events. Additional on-site support is available for an additional fee.

6 Phone Support and Global Contact Information

6.1 Mellanox Customer Assist Center (TAC)

Mellanox Customer centers are located in EMEA and USA, and provide technical support and logistics/RMA sparing services.

EMEA /APAC TAC

Mellanox Raanana.

13 Zarchin St

Raanana 43662

POB 4339

Israel

Tel: +972-74-7129000

Fax: +972-74-7129111

US TAC

Mellanox Boston

100 Apollo Dr.

Chelmsford, MA 01824

Phone: 978-439-5400

Fax: 978-439-5401

Mellanox Yokneam

Mellanox Sunnyvale

Hours of operations:

USA TAC – 9am-6pm (GMT -05:00)

Eastern Time, Mon-Fri

Hours of operations:

APAC/EMEA TAC – 9am-6pm (GMT +02:00)

Israel Time, Sun-Fri

6.2 Contact Mellanox Support

To contact Mellanox Support use one of the following methods:

	US TAC	EMEA/APAC
Via email	support@mellanox.com	support@mellanox.com
Via Phone	+1 408.916.0055 Or 1.800.865.8247	##-800-86582473 Where ## is the IDD (International Direct Dialing Prefix)
Via Web	To submit/manage the SR simply use the Mellanox Support Portal: Mellanox Support - http://mellanox.com/content/pages.php?pg=customer_support	

6.3 Technical Support After-hours

A full 24x7 after-hours support is available for Gold Support customers.

Outside of hours of Operation, an on-call system for emergency production outages and down time requests. To report an issue or request assistance, the Firm shall call Mellanox's local access phone and leave a voice message or contact Mellanox via email.

Technical issues/requests that are not priority one (see Priority Management under Mellanox escalation process document) will be addressed in the next business day. (Examples of what is supported after-hours: Production Network connectivity issues impacting more than one system).

6.4 Customer Service Management

Global Support Operations:

Name: Lior Ofer

Director Global support operations

E-mail: lioro@mellanox.com

TAC Escalation Managers:

EMEA/APAC:

Name: Idan Werpoler

Title: Manager, Customer Support

E-Mail: idan@Mellanox.com

USA:

Name: Yair Ifergan

Title: Manager, Customer Support

E-mail: yairi@mellanox.com

7 Service Request Handling Process

7.1 Before Contacting Technical Support

Mellanox has assembled a large knowledge base that contains many answers to your technical questions without calling Technical Support. You may visit “Quick Help” for locating a host driver troubleshooting wizard, first time installation guides, and common questions. We also have a downloadable FAQ database that contains over 500 known issues, solutions and best practices. Always read the release notes for any Mellanox product to quickly identify product limitations. Free online training can help you understand the intricacies of InfiniBand. By checking sources like the Mellanox knowledge base, you may find quick answers to your situations.

7.2 Determine the Nature of the Problem

Before calling for assistance, try to determine the cause of the problem by answering the following questions:

- What behavior are you experiencing? What behavior do you expect?
- When was the last time the software worked properly?
- When was the problem first observed?
- What was changed in your environment in the interim? (installing software, changing configuration, etc.)
- When did the problem occur?
- When does the problem not occur?
- What is different between those situations?
- How extensive or localized is the problem?
- What is the difference between the elements that exhibit the problem and those that don't?
- How critical is this problem to your development or deployment?
- Can you work around it until a fix is found?
- Is there a better way to implement the software that would make the problem disappear?

7.3 Isolate the Problem

After determining the problem, try to recreate and isolate the problem, be as specific as possible.

- Determine the precise steps required to consistently reproduce the problem.

7.4 What Is a Service Request (SR) Case?

Mellanox tracks every question or request for assistance that your technical support crew makes to the Technical Support Center as a service case ticket. A service case ticket is a single

technical question or instance of a problem. For example, if you call with questions relating to both the Mellanox fabric manager software and another relating to Mellanox Host Driver, we will approach them as two separate service tickets. Each service ticket receives a case number, which allows us to prioritize and track your problem effectively. Be sure to reference the case number when contacting support so that both of us can accurately track your case progression.

7.5 Case Prioritization

Case priorities are assigned based on problem urgency and the effect on your business. The priority of the case determines the targeted initial response time. Please explain the impact that the case has on your project, as it will allow your Technical Support person and the Technical Support engineer to best address the problem for your organization. Properly prioritizing cases also helps balance the workload appropriately within Technical Support, ensuring that our entire customer base enjoys efficient resolution to technical issues.

7.6 Free Options and Chargeable Services

Mellanox Standard contract includes unlimited access to Mellanox's Web-based support, where you'll find answers to frequently asked questions, technical tips and maintenance releases. You'll also have access to our comprehensive Knowledge Base – 24 hours a day, 7 days a week.

Mellanox does not limit the number user authorized technical support contacts. Your company should register one or more authorized technical support contacts to gain access to all the support materials. To register with us, submit the new customer registration form.

7.7 Logging Your Case

When you need to log a case with Technical Support, please have all pertinent information in hand to expedite case resolution. You can use this Technical Support Checklist to organize your information.

- 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? (such as or changes to the product, or related hardware/software or new accessories).

Log your case electronically using our online services by sending the information to support@Mellanox.com . Or call into your nearest Technical Support Center or the center included with your support information.

Once your case has been logged, it will be assigned a service ticket number and an appropriate Technical Support engineer. Be sure to record your service ticket number on your Technical Support Checklist. This number is your quick-reference number to all information about your question.

7.8 Resolving Your Case / Response Times

When calling Technical Support, we will first verify your support ID and request background details on the case, including the priority.

Sometimes resolving a case during the initial call is not possible. Additional information and tests may be required to better qualify the issue. The Technical Support engineer may require additional expertise to resolve your case and may transfer your case to an engineer that specializes in that product.

If you have additional information about your case, notify the Technical Support engineer by email or phone. Please provide your case number to expedite your phone call and to make sure the additional information is recorded accurately.

7.9 Remote Support Assistance

With your permission, Mellanox engineers can also open a remote console connection to view your desktop and work directly with you to diagnose and resolve issues.

7.10 Reporting Product Defects

If you are reporting a potential product defect, the Technical Support engineer will check to see if your problem has been reported previously and if a fix is available. If it is not a known bug, the Technical Support engineer will attempt to replicate the problem. This duplication may require the engineer to log on to your system (with your approval), obtain code from you, or use the error message and other information you provide to resolve the problem. Once the problem is duplicated, Technical Support will send the information to the appropriate software business unit for final verification that a product defect exists. Your support engineer will notify you when a product defect has been confirmed and will let you know what the next steps will be toward resolving your case.

7.11 Closing Your Case

A case is closed when you and the support engineer agree that a resolution has been reached. Your case may be closed because:

- The information and/or software provided by the Technical Support engineer has answered your question
- You tell the Technical Support engineer that the case is no longer an issue
- You and the Technical Support engineer agree that your problem is a result of a problem that cannot be isolated
- Repeated unanswered attempts for status query by the support engineer

7.12 Customer Satisfaction Surveys

There is the potential for a survey at the closure of any service request. The request for the web-based survey will be delivered via an email invitation from Mellanox's CRM.

The information in the survey is confidential and is used only for improvements in the service that Mellanox provides and to ensure that you are satisfied with the service you received. Survey information is not shared with any entity outside of Mellanox.

Appendix A: Return Material Authorization

A.1 Submission of an RMA Request

In order to return your product to Mellanox Technologies for repair or replacement you must first obtain an RMA.

Material Authorization should be obtained by an online form at the following address:

www.mellanox.com (Click the “Support” tab and then click the “Returns (RMA)” link)

After filling in your company name and contact details, it is mandatory to provide the following information for each item:

1. Part Number
2. Serial Number
3. Problem Description
4. DOA (Dead-on-Arrival) – Yes / No

If your request is for more than 5 items, please contact Mellanox Technical Support at: support@mellanox.com or Telephone Number: 1-408-916-0055 (USA).

A Mellanox Technical Support Engineer may contact you to trouble shoot the problem prior to the issuance of an RMA.

Upon receipt of your RMA request, Mellanox will validate the Warranty status of the products based on the serial numbers provided and in its discretion issue an RMA Number.

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

If this is an urgent matter requiring advanced replacement, please contact Mellanox Technical Support after submitting this RMA Request at: support@mellanox.com or Telephone Number: 1-408-916-0055 (USA).

To check the status of your RMA, please email to: rma@mellanox.com or call Telephone Number: +972-49097200 Ext. 7773

A.2 Logistic and Deliveries

When returning the product, please follow the instructions below to ensure your delivery arrives in a timely manner and is not damaged in transit.

When returning multiple RMA's clearly group and label each RMA separately.

A.2.1 Packing Instructions

Please return the product in its original factory box or similar packaging. The products should be placed in an ESD-protective bag, and then secured in the shipping box using bubble wrap or alternative shipping materials. If more than one item is being sent, please ensure the items are bubble-wrapped individually inside the box.



Shipping damages, resulting from improper packaging will be charged to the customer.

Missing Graphic.

The RMA number should be clearly marked on all boxes, packages and accompanying paperwork.

A.2.2 Invoice Data

Please detail:

1. Mellanox Part Numbers.
2. Serial Numbers.
3. Unit Price/Totals (Invoice Value: should be FMV – Fair Market Value , for such part number, or, alternatively use the original price from Mellanox invoice originally sent, as this is a customs mandatory requirement).
4. Value should be in USD.
5. Clear description of the goods.
6. Invoice must clearly indicate RMA - Returned Goods, & RMA number.
7. Invoice will be marked as "N/C" for No Charge.

A.2.3 DOA Equipment RMA Returning Instructions for the Customer

1. Prepare an invoice as per instructions mentioned above.
2. Is this Mellanox or the customer? Mellanox is responsible for paying shipment charges & insurance when returning the product to Mellanox, Mellanox will provide the shipper account.
3. Mellanox will bear the shipping costs when sending back the repaired/replaced part to the customer.
4. Please email to rma@Mellanox.com the shipping information (Airway Bill/Tracking number) so we can track your shipment.

A.2.4 Regular Non-DOA RMA Returning Instructions for the Customer

1. Prepare an invoice as per instructions mentioned above.
Please arrange a pick up by courier service – UPS, DHL or FedEx (preferred). – And ship “PREPAID”, Incoterm: DDU.
2. The customer is responsible for paying shipment charges & insurance when returning the product to Mellanox.
3. Mellanox will bear the shipping costs when sending back the repaired/replaced part to the customer.
4. Please email to rma@Mellanox.com the shipping information (Airway Bill/Tracking number) so we can track your shipment.

On receipt of product returned under an RMA number, a Receipt Notification e-mail will be sent to you by Mellanox confirming receipt of product and quantities received.

Factory repair RMA's will be valid for 30 days. If faulty units are not received at Mellanox within 30 days the RMA# will be deemed as cancelled.

A.2.5 Shipping RMA Back to the customer

As soon as the RMA part is repaired /replaced Mellanox will send back the repaired parts as follows:

1. By Fedex-Priority: Door-to-Door service (Incoterm:DDU). Mellanox will pay for shipment of the repaired items back to the customer.
2. Detailed invoice to show: RMA number, part number, serial numbers & description.
3. No Charge invoice – with value for customs purpose only (meaning the values listed in the Invoice are just for customs clearance and not for payment).
4. Notification with the Fedex tracking number will be sent to the customer.

A.2.6 Advance Replacement RMA (Non-DOA)

Customer Service department will inform you if ADVANCED RMA is approved. Advanced RMA unit will be shipped to customer within 24 working hours from Mellanox's warehouse to customer premises.

Tracking info will be advised to customer for follow-up.

Once the Advanced RMA unit is received, please send back to us the failed unit (according to the RMA procedure) and provide shipping information to assist us in tracking the shipment.

According to Mellanox policy, if the RMA product is not received within 30 days after the delivery of the Advance Replacement, Mellanox will invoice you for the entire value of the replacement unit.

Our company policy is, and always has been, to provide the best service available to our customers.

A.2.7 Shipping Advance RMA to the Customer

1. Mellanox will ship the ADVANCED RMA to customer, by Fedex Priority, "Pre-paid" - Door-to-Door service (incoterm: DDU). Shipping charges are paid by Mellanox.
2. With detailed No-Charge invoice to show: RMA#, part number, serial numbers & description.
3. Pre-alert notice will be sent to the customer upon pick-up by Fedex.

A.2.8 Advance RMA Returning Instructions for the Customer

1. Packing instructions: Same as above for regular RMA.
2. Invoicing and "Ship-To" Address: Same as above for regular RMA-
3. Shipping – by courier service, "PREPAID", Incoterm: DDU.
4. The customer is responsible for paying shipment charges when returning the product to Mellanox.

5. Please email to rma@mellanox.com the shipping information (Airway Bill/tracking number) so we can track your shipment.

Return of Advanced RMA by the customer is due in 30 days after the delivery of the Advance Replacement.

A.2.9 Customer Induced Damages / No Problem Found

If any returned products after examination are determined by Mellanox to be No-Problem-Found (“NPF”), or damaged while in transit or due to improper use or installation, a Repair Services / NPF Quotation will be returned to you by email. Mellanox at its sole discretion will determine if repair of the returned product is feasible. The minimum Repair Services / NPF Fee is \$150 USD per HCA or \$300 USD per Switch or Switch FRU. The Repair Services / NPF Fee does not include the cost of return shipping.

Appendix B: Escalation Process

This 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, "contracted" or "entitled" for that level of support. It must be followed by Technical Assistance Center, Field Sales, Support and Product Engineering for the resolution of worldwide customer problems.

B.1 Abbreviations

TAC	Technical Assistance Center, centralized call center operations
DCS	Director of Customer Service, resides in all TAC locations
SAM	Sales Account Manager
CRM	Mellanox's centralized Customer Relations Management system - Salesforce

B.2 Responsibilities

Customer Support Operations will be responsible for managing the overall escalation process.

Operations Logistics will be responsible for providing spares.

Solutions Engineering will be responsible for the implementation of functional changes to products.

Table 1: Escalation Management Guidelines (Business Clock Hours)

Clock = 0	CUSTOMER REPORTS PROBLEM
30 Mins	Customer Support - Tac Acknowledgement
0 - 2 Hrs	Remote Support
4 Hrs	Tac Notify Management
8 Hrs	Notify Product Engineering Sales Manager (Sam)
12 Hrs	Engineering Escalation Opened
24 Hrs	Notify DCS Inform Customer Of Action Plan
Per Fix Plan	Resolution Efforts Underway Keep All Levels Notified
Per Fix Plan	Solution Delivered - Validated Monitor
Per Plan	Customer Acceptance - Final Fix
As Required	Review Post Mortem

B.3 Problem Classifications (CRM – Salesforce)

This field is used to monitor the life-cycle progress of all problems being tracked. Its main purpose is to gauge overall progress through resolution. Case problem closure is attained once the customer has accepted the delivered solution.

- Open/Un-Assigned – Customer or admin created case
- In Process – Assigned, problem determination in process
- On Hold – Pending a long term external action or test result
- Escalated – Management Alert
- Committed bug/feature – Engineering investigating
- Closed – Fix validated and customer accepted as fixed

B.3.1 Priority Management

When the Mellanox Technical Assistance Center (TAC) is contacted, a member of the support staff will work with the caller to assign a mutually agreed upon priority level. Priority 1 cases will be worked on a 24/7 basis. Priority 2-4 cases will be worked during normal business hours. Priority levels are defined as follows:

Priority Level	Definition
Priority One -Fatal	• 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 -High	• 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, with workaround
Priority Three -Medium	• 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)

Priority Level	Definition
	- System or software is not operating in a normal manner - There is a workaround or the problem is very intermittent
Priority Four -Low	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

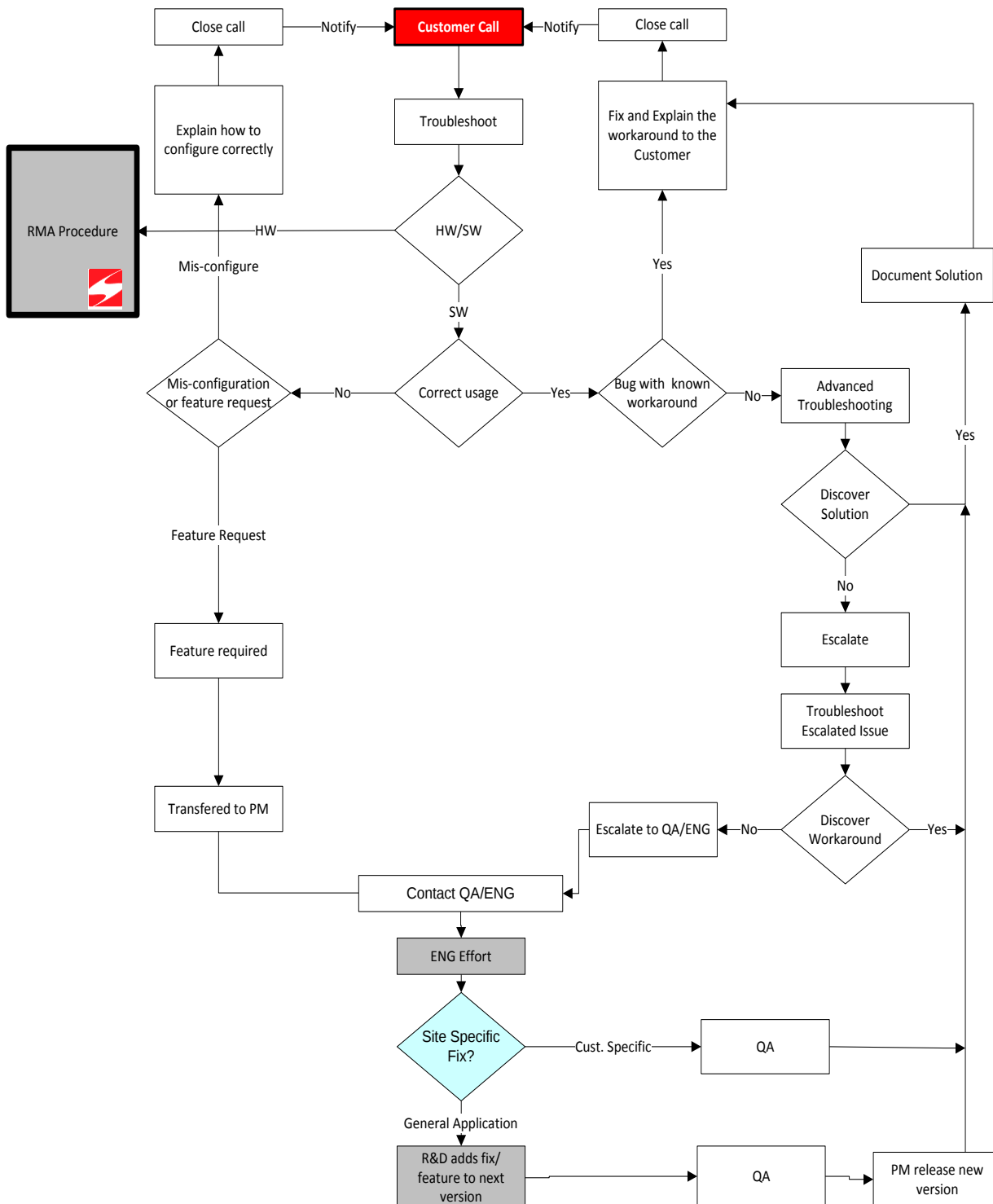
B.3.2 Escalation Management Response Times

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



These escalation timeframes are guidelines only and are not a substitute for sound business practices.

Call Process



Appendix C: Contract Renewal

In order to take full advantage of all the software and services available with Mellanox Support Entitlement, be sure that you activate and renew your support contract within ninety days of purchasing Mellanox products.

Be sure to renew support to ensure your investment is protected and you receive continued access to new product Software Releases and our World Class Technical Support. Or consider an upgrade from Warranty to one of our support packages to ensure you're getting the most from your Mellanox investment and protect it in the future.

Either way, it is a simple three-step process.

Step 1: Contact contracts@mellanox.com

or

Fill out and submit the Support Contract Renewal or Upgrade form.

Enter your serial numbers, and choose your desired action (renew an expiring support contract(s), upgrade from Warranty to Standard and submit the form.

Step 2: A representative from Mellanox Contract Administration will contact you with:

- Existing Contract serial numbers
- A quotation informing you on the cost of your desired renewal or upgrade.

Step 3: (only required for customers receiving quote's)

Purchase your support renewal or upgrade by placing a purchase order through a chosen Mellanox reseller, please contact your chosen reseller to place your order. You will need to provide your reseller with a copy of the renewal quotation.

For questions about an aspect of the support renewal or upgrade process, Please contact us at contracts@Mellanox.com with your questions. We'll try to respond clearly and promptly.

Please note:

- You cannot buy support renewal or an upgrade online. Please see Step 3 above. You will need to send a PO to Mellanox reseller referencing your quote number on the purchase order.
- You can upgrade from Bronze to Silver and Gold Support contract, when contacting contracts@mellanox.com for renewal ask for a support package upgrade.
- If you don't renew support as soon as it expires and you have a single contract or multiple contracts and all have expired, this terminates Mellanox Support Web access and all Customer Support TAC activity access. Of course, we hope that you will find value in maintaining ongoing access to support for technical center assistance and access to the latest updates.
- There is no penalty if you don't renew straight away. However, contracts renewed at a later date will be back-dated to the original expiration date and will be valid for one year.
- If you need to know whether you are already entitled to use the latest version of Mellanox product, the easiest way to find out your entitlement status is to contact us at

contracts@Mellanox.com with your serial number(s) using into the Support Renewal or Upgrade form.

- If you have lots of different serial numbers purchased at different times. You can renew support for them all so that they all have the same support expiration date. Contact Contract@mellanox.com and ask for a site contract or simply enter all the serial numbers together as a single batch into the Support Renewal or Upgrade form. If you purchase a support renewal, all your serial numbers in your new contract will have the same support expiration date.
- If you want to renew support on several serial numbers with different expiration dates, we pro-rate the support renewal fee appropriately for each serial number that is entered as part of a batch into the Support Renewal or Upgrade form. When you purchase a support renewal, your serial numbers will therefore have the same support expiration date under the new contract. If you subsequently purchase additional equipment simply include those with your existing serial numbers the next time you come to renew support.
- You cannot renew support for only some of the serial numbers for which you have a renewal. We only support clusters in their entirety. Our Renewals arrangement is to process a quotation in its entirety.
- You can renew support a few weeks before expiration, to ensure continuous access to support and updates, this is recommended by Mellanox. Your contract will extend out to one year from your current expiration date.
- If you purchased a Mellanox Bronze warranty based contract you are entitled to hardware factory repair only without any TAC support or software support. If you would like to update your contract to a Silver or Gold Support Contract, Please request a quotation from contracts@Mellanox.com. Your new serial number will be added to the current contract based on the quote you received being pro-rated according to the remaining length of your support contract. You will receive support and updates for the remainder of your contract.

Appendix D: Additional Services (Additional Cost)

D.1 On Site Support

Mellanox offers ‘On Site Support’ where Mellanox engineers visit the customer’s site to help in the deployment, implementation, and/or debug of Mellanox-based products. With a wide range of networking knowledge and experience, Mellanox Technologies is committed to provide the customer satisfactory solutions to customer’s problems, while reducing costs and maximizing product performance. Mellanox offers on-site consulting support for:

- Cluster design for every cluster size
- Best Practices review for cluster bring-up
- Best Practices review for cluster installation and maintenance
- Fabric Management configuration and validation assistance
- Benchmarking and performance tuning optimizations
- Assistance in bringing up InfiniBand attached storage

For additional information regarding our “On Site Support”, please contact your Mellanox Technologies representative.

D.2 Mellanox Training

Mellanox provides professional and comprehensive training across all levels for the following topics:

- Technology foundation Mellanox adapters, gateway and switch platforms, including firmware update procedures
- Mellanox Fabric management and ongoing maintenance suggestions
- Debug and Troubleshooting
- Cluster design

For additional information regarding our “Mellanox Training”, please contact your Mellanox Technologies representative.