

RibbonCare Service Description

Ribbon Maintenance and Support

IP OPTICAL



RibbonCare Maintenance & Support IP Optical

This Service Description describes annual maintenance and support services offered by Ribbon to customers purchasing products directly from Ribbon ("RibbonCare").

Authorized Ribbon Channel Partners offer maintenance and support services for the Ribbon products they resell. A description of these services can be obtained by directly contacting them.

RibbonCare is a comprehensive portfolio of maintenance and support service offerings for Ribbon Hardware and Software products. RibbonCare provides post-installation support in the case of product failure or suspected defects.

Assistance with network design, configuration, deployment and/or migrations are not within the scope of RibbonCare but are available through purchase of Ribbon Professional Services.

The Customer may choose under the RibbonCare Maintenance Program from the following maintenance and support packages. Availability and fees may be subject to product type and location.

RibbonCare Maintenance & Support Packages

All RibbonCare packages include direct access to Ribbon technical support and the Ribbon Support portal. Portal enables 24x7 access to technical support information, non-critical issue support request submission, hardware repair request submission, support case management & updates, download of entitled software Patches Updates and Ribbon product bulletin notifications.

Platinum Maintenance & Support

- 24x7 Ribbon Technical Support with immediate critical issue escalation engagement
- Remote diagnosis by Ribbon global Support centers
- Software Upgrade Service (excluding the Upgrade implementation, to be purchased separately)
- Hardware Replacement Service, Return for Repair center ("RFR")

Gold Maintenance & Support

- 24x7 Ribbon Technical Support with immediate critical issue escalation engagement
- Remote diagnosis by Ribbon global Support centers
- Software Updates Service
- Hardware Replacement Service, Return for Repair center ("RFR")

Silver Maintenance & Support

- 8x5 Ribbon Technical support with immediate critical issue engagement during business hours
- Remote diagnosis by Ribbon global Support centers
- Software Updates Service
- Hardware Replacement Service, Return for Repair center ("RFR")

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Advanced Ship Hardware Replacement (AHR)

- Optional add-on service which can be added to any Silver, Gold or Platinum level service for an additional fee
- Next Business Day Advance Shipment for replacement hardware authorized under RMA

RibbonCare Package Features -- Service Description

In consideration of the maintenance fee for the applicable RibbonCare offering purchased, Ribbon shall provide maintenance and support services in accordance with this service description.

Remote Ribbon Technical Support (“RTS”)

Following purchase of services, customer is required to register staff for access to the Ribbon support portal. Portal enables 24x7 access to technical support information, non-critical issue support request submission, hardware repair request submission, support case management, case updates, download of entitled software Updates, and Ribbon product bulletin notifications.

RTS response is prioritized based on a jointly assigned issue severity level. Severity levels are described in appendix A.

When entitled by RTS 24x7 service level, Critical priority support requests may be opened 24x7 via phone.

For technical resource assignment and response to non-critical or non-business critical severity issues Customer is encouraged but not required to submit support requests via the Ribbon support portal.

Customer is required to maintain appropriate Software configuration backups and the capability to install software backups, updates, and entitled major release upgrades as a prerequisite for RTS services delivery. Ribbon professional services and training are available to assist for an additional fee.

It is recommended that backups be readily accessible and that copies be stored in a secure offsite location. In a recovery scenario, missing, corrupted or inaccessible backups can result in extended outage and recovery times. For fee Ribbon professional services to assist in rebuild and or reconfigure are available.

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24x7 RTS Service Level:

- For critical issues (Traffic affecting), RTS is engaged immediately when RTS contacted by phone and will remain remotely engaged to recovery. After service has been satisfactorily restored, Critical support case will be closed. A Major/Minor child case will be opened if Ribbon determines that further investigation or problem resolution activity is required. Furthermore, at its discretion Ribbon may conduct a root-cause analysis of the issue, the results of which will be made available to the Customer.
- Case closure is documented in case notes viewable in Ribbon support portal.

8x5 RTS Service Level:

- For critical issues (Traffic affecting), RTS is engaged immediately when RTS contacted by phone during business hours.
- Opened cases are remotely responded to/worked on by RTS staff during business hours, 9 AM to 5 PM in Customer time zone, Monday thru Friday excluding Holidays.
- Case closure is documented in case notes viewable in Ribbon support portal.

Hardware Repair or Replacement

Return Material Authorization (RMA) identifier must be included with all hardware returns to Ribbon. RMA identifier will be provided by RTS when support services are approved, and hardware return is required.

Defective HW returned to Ribbon (for repair or in exchange) is to include all subassemblies defined by Ribbon to be included within the failed unit. Ribbon reserves the right to charge Customer current list price for the non-return of subassemblies provided within a replacement unit sent to Ribbon for repair.

Return for Repair (“RFR”): For Customers utilizing self-managed spares or in cases where the turnaround time to address a loss of solution redundancy is NOT critical.

- Customer will ship at Customer expense defective Field Replaceable Unit (“FRU”) to a Ribbon specified location.
- Following receipt of defective FRU, Ribbon will ship to Customer repaired or replacement FRU within 55 business days. If replacement FRU is provided by Ribbon it may be refurbished or new and will ship from Ribbon repaired returns inventory at or above baseline release supported.

Advance Hardware Repair (“AHR”):

For customer's who have purchased Advance Hardware Replacement (“AHR”) add-on service, Ribbon will ship replacement Hardware in advance of defective Hardware receipt by Ribbon. Following AHR service request approval, Ribbon will ship a functionally equivalent replacement for the Field Replaceable Unit (“FRU”) in advance of Customer return of the defective FRU to a Ribbon specified location. The FRU provided by Ribbon will be refurbished and will ship from Ribbon's repaired returns inventory at, or above, a baseline release which is supported by Ribbon.

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- With Ribbon delivery of an Advance Hardware replacement FRU, a return shipping label and packing instructions are included for the return of the defective FRU to a Ribbon specified location. Customer is required to have the defective FRU returned to the Ribbon specified location within thirty (30) calendar days from the AHR exchange FRU delivery.
 - In cases where the return of the defective FRU is not possible, Customer may have an equivalent FRU part number with different serial number, whether from its spare pool or other inventory, returned to Ribbon. This FRU part may be used stock purchased by Customer from Ribbon or a Ribbon authorized channel, and not from the gray market.
 - For Example: If Customer policy requires Customer to destroy defective hard drives or solid-state (SSD) drives, an equivalent FRU spare part may be returned to Ribbon in lieu of returning the defective part.

For Customers utilizing self-managed spares or in cases where the turnaround time to address a loss of solution redundancy is NOT critical.

- Customer will ship at Customer expense defective Field Replaceable Unit ("FRU") to a Ribbon specified location.
- Following receipt of defective FRU, Ribbon will ship to Customer repaired or replacement FRU within
- 55 business days. If replacement FRU is provided by Ribbon it may be refurbished or new and will ship from Ribbon repaired returns inventory at or above baseline release supported.

Hardware Shipping Notes

- Customer must act as the importer of record for repaired and Advance Hardware Replacement FRUs.
- Should an international shipment be required for Customer return of defective hardware to the Ribbon specified location the Customer will be the exporter of record.
- Customer is responsible for all duties, taxes, and other import/export fees.

SW Maintenance

The RTS (Ribbon Technical Support) portal provides support entitled registered users access to download software Updates under the RibbonCare program.

RibbonCare Support & Maintenance Support Fulfilment Process:

The RibbonCare maintenance and support program defines Customer and Ribbon obligations as follows:

Customer Obligations:

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- Performing of Routine Maintenance to include maintaining of software configuration and back-ups.
- All Onsite support activities (unless Technician Dispatch Onsite HW Exchange service is purchased).
- Registration for RTS portal login/RTS access.
- Exporter of Record for return to Ribbon of defective Hardware FRU.
- Administration of spare parts and replacing of defective FRU (field replaceable unit) unless entitled to Ribbon onsite hardware exchange service delivery.
- Fault triage and isolation to Ribbon hardware and software products.
- Opening of RTS support tickets to request support assistance, via phone if critical issue or support portal if non-critical issue.
- Collaboration with Ribbon RTS engineers to assist with steps for replication of issues identified to be a software defect or related to complex configuration.
- Providing of requested configuration data, log files, and network protocol trace files access to RTS.
- Download and installation of software updates and Entitled Major Release Upgrades when required to resolve an issue.
- Customer is responsible for updating and expanding its hardware systems as required to accommodate incremental Ribbon Software updates or upgrades when so indicated by Ribbon. This includes the purchase of any hardware upgrades and/or Customer download and installation of firmware updates and upgrades as may be specified by Ribbon as being required to run Ribbon Software and/or address firmware issues identified by Ribbon.
- Resolution of issues caused by misconfiguration (Ribbon Professional services for installation, configuration and provisioning are available for an additional charge).



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In the event Customer engages an Agent(s) to perform all or part of Customer's obligations under this Maintenance Service Description, Customer agrees to ensure, and remains primary liable for, (i) the Agent's protection of Ribbon's confidential and proprietary information obtained during such performance from third party disclosure or misappropriation by its Agent; and (ii) the Agent's use of such Ribbon confidential and proprietary information be solely and exclusively on behalf of the Customer only. Ribbon reserves the right to take direct action against an Agent to protect Ribbon's confidential and proprietary information.

Ribbon Obligations:

- Accessible 24x7 for support case logging.
- Further fault triage and isolation to Ribbon hardware and software products.
- Advanced isolation and review of issues through inspection of logs and trace files.
- Resolution of technical escalations from Customer.
- Resolving of known problems by researching existing solution.
- Providing of status updates and resolution details to Customer.
- Collaboration with Customer for replication of issues identified to be a software defect or related to a complex configuration.
- Qualify hardware services entitlement and facilitate Return Materials Authorization (RMA) and hardware repair / replacement process per Customer entitlement(s).
- Provide download access to software releases/patches per purchased service level.
- Engage Ribbon engineering and third-party vendors as required.
- When Customer entitled for RTS 24x7 critical case support, following Customer agreement that service has been satisfactorily restored a critical case will be closed. A Major/Minor child case will be opened if further investigation or problem resolution activity is in Ribbon's opinion required. Furthermore, at its discretion Ribbon may conduct a root-cause analysis of the issue, the results of which will be made available to the Customer. Case closure is documented in case notes.

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RibbonCare Maintenance and Support Program Exclusions

- Any Onsite support activity (Exception: Onsite Exchange technician dispatch entitlement purchase).
- Any service required due to unauthorized attempts by other than Ribbon support certified personnel to repair, maintain, or modify the product.
- Any service which in Ribbons' opinion is required due to external causes to the supported product including, but not limited to, product damage, destruction or loss due to force majeure events or due to the improper treatment or use of the products
- Any service to resolve software or hardware problems resulting from third party products not provided by Ribbon.
- Any service for products not furnished by Ribbon or a Ribbon authorized reseller (such as, Gray Market purchased products)
- Any service for Hardware products that cannot be properly repaired in Ribbons' opinion due to excessive wear or deterioration.
- Any reconfiguration of products which is not in accordance with Ribbon specifications.
- Any electrical or site work external to the products.
- Any implementation of Entitled Major Release Upgrade software
- Any hardware product change, for purchase RTU software licenses, or new hardware products required to run new or Entitled Major Release Upgrade software.
- Any customization of, configuration, or labor to deliver and implement software.
- Any furnishing of supplies, accessories or the replacement of expendable parts (e.g., light bulbs, fuses, filters, blower assemblies, power cords, fuse panels, batteries, cabling, printer ribbons, racks, frames, bays, shelves, line drawers, miscellaneous hardware, etc.)
- Any services for products identified by Ribbon to be in End of R&D Support lifecycle stage (EOSL) -- unless Customer is offered, in writing, by Ribbon the option to purchase Post EOSL RTS Only support services.
- Root-cause analysis, fault reports or lead-time/performance metrics unless specifically contracted for these services.
- This service does not include access to features without purchase of RTU license to operate that feature.

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RibbonCare Support and Maintenance Program Terms

Payment Terms

- Support fees are due and payable annually or quarterly in advance of the support period. A 12-month support period is typical, but longer periods may be quoted (with discounts for multiyear maintenance agreement commitment). Support services are non-cancelable, and the fee paid is non-refundable.

Reinstatement of Coverage

- If Customer renews support within 90 days of previous contract expiration, the renewal will be backdated to the original expiration date and support cost shall be at the then associated annual rate. Late fees may apply.
- Reinstatement of Ribbon support following a lapse of support coverage for greater than 90 days or due to a failure to purchase RibbonCare maintenance and support at time of initial product purchase:
 - Should Ribbon be able to determine that product is in good working order, at a supportable version level, and product was purchase directly from Ribbon or an authorized reseller Ribbon will offer Ribbon maintenance and support services to the Customer under following terms:
 - Ribbon determination that product is in good working order may include a recertification fee which will include, but is not limited to, (i) an inventory of relevant Products and Systems; (ii) a review of Customer's technical support, repair and update histories; (iii) an assessment of the current level of the software and any hardware engineering changes; and (iv) a performance assessment of the Products. This recertification service fee will be charged at the then-current price or on an as-quoted basis.
 - Payment of 110% of Ribbon's then-current maintenance fee for time period support was not paid or a product specific return-to-support fee.
 - Payment of Ribbon maintenance fee for future support coverage with a minimum term of 12 months.

Support of Software Releases (n-2):

- Ribbon will provide software support only for the last two (2) consecutive releases of a Contracted Equipment (N-2). Ribbon will provide the Customer the optimum path of upgrading to less than (N-2) with an optimum investment by the Customer. In case that the network is in more than (-2) versions, in some cases support may be on a 'best effort' basis only.

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Definitions

Term	Definition
8x5	8x5 support coverage is 9am to 5pm Monday thru Friday at Customer location, excluding holidays.
24x7	24X7 support coverage is 24 hours Business per day, 7 days per week, 365 days per year
Advance Replacement	A FRU (Field Replaceable Unit) dispatched to the Customer by Ribbon to remediate a hardware problem in advance of Customer returning to Ribbon the replaced defective FRU, should be purchased separately.
Agent	A third party engaged by the Customer to perform all or part of Customer's obligations as set forth under this Maintenance Service Description (e.g. contractors, partners, outsourcing suppliers)
Continuous Effort	With 24x7, RTS maintenance support activities continue until system restoration for critical severity cases or until such time when the hardware fault, software fault or error corrected, or when a temporary fix or solution recommendation provided to restore the Product to the previously existing
Custom Software	Software which is modified, altered, or customized to meet Customer requirements
Customer	For purposes of this service description, Customer means the entity that has purchased this program and/or holds the entitlement to the maintenance service as defined under this service description.
End Customer	Customer supported by RibbonCare service sold by Ribbon channel partner
End of Product Sale	Refer to Ribbon published <i>Ribbon product lifecycle documents</i> .
End of R&D Support	
End of RMA Support	
Enterprise	A company (other than a Service Provider) purchasing Ribbon products and services to be used primarily for its internal business purposes
FRU	Field Replaceable Unit
Gray Market	Refers to Customers purchasing hardware and software products from sources other than the manufacturer or the manufacturer's authorized agents
Hardware	Equipment and related accessories and parts
Next Business Day	9 AM to 5 PM Monday thru Friday excluding Holidays at location where supported equipment is located.

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Partner	Ribbon authorized distributor, indirect partners (partner of distributor), or direct Ribbon partner authorized to resell Ribbon Products and services.
Program	The RibbonCare Maintenance Program as defined under this service description.
RTS	Ribbon Technical Support
Service Provider	A telecommunication company or carrier purchasing Ribbon products to be used primarily to provide voice, data, video and other communications products and services as part of its core business as determined by Ribbon
Software	The object code Instructions for a Ribbon Software product
Software Defect	A Software defect is where the Software product does not conform substantially to published user documentation as of the date of product shipment. Software products provided by Ribbon are not warranted to be error free
Software Only Products	"Software Only Product" means a software application which is sold as a separate software product independent of any hardware.
Software Update	"Update" is defined as a software version, when and if generally available, that provides patches, fixes and minor enhancements that may slightly improve pre-existing baseline performance of the installed software version.
Entitled Major Software Release Upgrade	"Entitled Major Software Release Upgrade" is defined a software version, for which the Customer has a right to use license that provides added features, added functions, and/or major enhancements intended to significantly improve performance of the installed software version. Will typically be made available coincidently with an earlier software version reaching its End of Support Life. The Service is available under the Platinum Support package. Implementation related to the SW Upgrade is excluded from the Service and should be purchased separately.
Spare	A field replaceable unit (FRU) held in waiting by Customer to swap with a production or Lab FRU that has failed

Ordering Information

For more information on Ribbon Products and Services or to order Maintenance Service, visit the following Web site: <https://ribboncommunications.com/>

Terms and Conditions of Sale

Ribbon Communications ("Ribbon") is the selling entity for the sale of Maintenance Services under this service description. The sale of Maintenance Services is subject to the Ribbon Standard Purchase and License Terms located at <https://ribboncommunications.com/>, or if applicable the existing Customer purchase agreement between the parties. No other terms and conditions shall apply. This Service Description is subject to change without notice.

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Appendix A Ribbon Maintenance and Support Case Severity definition

IP Optical

IP Optical – Case severity Availability, Response, Recovery, and Resolution

Ribbon will make reasonable effort to respond to remote technical support requests per the performance goals set forth below.

These goals are established within Ribbon as metrics within Ribbon Quality Management System TL9000 and ISO 27001 compliant processes.

Note, Ribbon's failure to adhere to the goals stated in a specific support instance will not constitute a breach by Ribbon. Listed goals are for informational purposes only and subject to change at Ribbon's discretion.

Ribbon assigns severity levels to customer support cases, as follows:

Severity level: Critical

- Critical severity refers to the condition that exists when all or part of the system or software is inoperative, and the condition affects traffic or significantly disrupts management. This condition generally requires immediate resolution or correction.

For example, a problem is considered critical when it affects system operation in one or more of the following ways:

- Traffic affecting
- Severe management capabilities degradation, such as alarm monitoring or traffic provisioning

Severity level: Major

- Major severity refers to the condition that exists when all or part of the system or software is partially inoperative, but service to the customer is not affected. The inoperative portion of the system or software restricts local management capabilities.

For example, a problem is considered major when it affects system operation in one or more of the following ways:

- Loss of customer's ability to manage the system
- Loss of system redundancy
- Significant degradation in resources (when system operation is according to specifications during product license implementation)
- Partial loss of major system component or function
- Loss of administrative functions, such as routine service/support functions

Severity level: Minor

- Minor severity refers to the condition that exists when the system or software is operative, customer operations are not affected, and problems result in minor failures that involve individual components of the system.

For example, a problem is considered minor when it includes one or more of the following issues:

- Minor abnormal behavior of the system
- General documentation problem
- Technical consultation consisting of informational questions

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Appendix A Ribbon Maintenance and Support Case Severity definition

IP Optical

Service parameters and performance objectives

Ribbon makes every effort to meet the response, restoration, and resolution objectives, as described below. Ribbon measures support service performance using the following 3 metrics:

- Response Time (IRT)
- Service Restore Time (SRT)
- Problem Resolve Time (PRT)

The table below displays the service performance levels and limits for Ribbon service performance objectives.

Ribbon Support Service Targets IP Optical			
Ribbon Severity Level	Phone Response Time	Restore	Resolve Time
Critical All or part of the system or software is inoperative, and the condition affects traffic or significantly disrupts management	Immediate	Recovery in 90% of cases within 4 hours	14 Days
Major All or part of the system or software is partially inoperative, but service to the customer is not affected	Immediate	Not Applicable	80% of cases resolved in 15 days or less.
Minor Condition where system or software is operative, customer operations are not affected, and problems result in minor failures that involve individual components of the system	Immediate	Not Applicable	80% of cases resolved in 30 days or less.

NOTE: Restore and Resolve times exclude travel time.

“Severity Level” A Defect which is classified based upon TL9000 guidelines regarding system impact.

“Response” means the time commencing upon Ribbons’ receipt of a service request by the method required for the applicable defined Severity Level and ending when an engineer is assigned, and acknowledgement of the request has been published

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“Recovery of Critical Severities” means the time-period commencing after the applicable Response Time period and ending when the hardware fault, software fault or error corrected, or when a temporary fix or solution recommendation is provided to restore the Product to the previously existing level of functionality.

- Recovery Time expressly excludes any required hardware shipment or hardware replacement. Recovery Time also excludes time spent waiting on Customer required information, access to Customer’s facilities, scheduled maintenance windows, Force Majeure event(s), etc.
- In circumstances where software restoration or solution recommendation is deemed to be at risk within the recovery goal time-period such issues will be managed transparently by Ribbon with the Customer. Ribbon will identify all such support request cases and escalate to senior Ribbon support services and Ribbon R&D management.

“Resolution” means that a solution recommendation or action has been provided, or the support request case is otherwise closed by Ribbon. Following Customer completion of required steps within a Ribbon provided resolution goal is for covered products to materially conform to committed Ribbon product specifications. Resolution is a solution or recommendation which Ribbon and Customer have mutually agreed is sufficient to close the support request case.

- Should a mutually acceptable software solution, or solution recommendation not be possible within the case closer time-period goal such issues will be managed transparently by Ribbon with the Customer and Ribbon will identify such support request cases to the Customer.
- There should be no expectation that a Ribbon assigned engineer will in all cases work continuously with customer to issue resolution. Issue priority is established by severity.
- Timing for the incorporation of resolution within a generally available production SW/documentation release(s) will depend upon issue severity, likelihood of occurrence, customer business impact, workaround characteristics, or other factors as determined by Ribbon.