APPENDIX 4: Customer Support Guidelines

Definitions

"**Business Hours**" or "**business hours**" shall mean those hours contained within a Business Day as defined in Table 1 below.

"Customer Facing Incidents" or "CFIs" means the outages and impairments within VENDOR's Span of Control that adversely affect the IETF Community's ability to use the Secretariat Service.

"Customer Span of Control" means those areas of functionality with respect to the Secretariat Service that are under the control of the IETF Community. This includes all elements of the Customer's and/or Recipient's networks, which may affect VENDOR's provision of Services.

"**Customer Support**" means the personnel assigned by VENDOR to interface with the IETF Community on all CFIs. Customer Support shall be provided by VENDOR Help Desk.

"**Data Center" or "DC**" means the physical location in which VENDOR provides the facilities, equipment and personnel to offer the Secretariat Service. VENDOR will maintain at least two geographically distinct locations for IT services.

"VENDOR Network Operations Center" or **"VENDOR NOC"** means the location where VENDOR manages and monitors the operation of the Service.

"VENDOR Span of Control" means those areas of functionality with respect to the Secretariat Service that are under the control of VENDOR. The VENDOR Span of Control shall not include any Force Majeure Event or other event that is beyond the control of VENDOR in its role as a provider of the Secretariat Service.

"Other Downtime" means the total number of minutes in a given month during which Secretariat Service has been unavailable to the IETF Community due to causes that are not within the VENDOR Span of Control including, without limitation, incidents or outages due to any Force Majeure Event.

"Scheduled Maintenance Time" means total number of minutes in a given month that VENDOR has taken the Secretariat Service off-line to perform scheduled maintenance after providing notice, if required, to the IETF Community as described below.

"Service Availability" Service Availability shall mean the availability of the service for Secretariat Services. The measurement of Service Availability set forth in the Service Level Exhibit Table 2 shall not include any service unavailability arising from or due to elements beyond the VENDOR Span of Control (as set forth below).

"**Unscheduled Downtime**" means the total number of minutes in a given month during which the Secretariat Service has been unavailable to Customer due to causes within the VENDOR Span of Control.

VENDOR Responsibilities and Support Services

The following section sets forth the support responsibilities of VENDOR in connection with the provision of Secretariat Services pursuant to the Master Services Agreement Addendum. VENDOR responsibilities to provide these support services as described below shall apply to Customer and Recipient and shall be documented.

Responsibilities

VENDOR will provide service operations, maintenance and administration in support of the IETF community. At the IETF's written request, VENDOR shall assist with problem identification and resolution for incidents outside the VENDOR Span of Control.

VENDOR will remedy incidents, within its Span of Control, that have been identified either by VENDOR, or Customer or Recipient according to the procedures set forth below and the IETF Community will provide all relevant information, if available, to VENDOR.

With respect to incidents that occur in the Customer Span of Control or in areas outside the VENDOR Span of Control, VENDOR will: (i) make reasonable efforts to assist with the resolution of the incident; and (ii) support the IETF's Recipient's escalations; provided, however, that it is ultimately Customer's or Recipient's responsibility to resolve incidents that involve Customer Span of Control or incidents outside the VENDOR Span of Control.

VENDOR Support Services

Customer Support will be the interface between the IETF and VENDOR for support of service impacting incidents. This arrangement provides the IETF Community with a process to access VENDOR for reporting incidents, receiving updates and pursuing escalation. Table 1 provides Customer Support hours of operation and contact information.

	VENDOR Support Services		
Hours of Operation	Business Hours (M-F) 8-4 p.m.		
Contact Phone Number			
E-mail	letf-action@ietf.org, until		

Table 1 - VENDOR	Customer	Sunnort S	Services	Contact	Information
Table I - VENDUR	Customer	Supports	bel vices	Contact	IIIIOI IIIatioii

Address	further notice by IAD

Trouble tickets can be opened directly with Customer Support via phone 1-510-492-4080, fax (to be assigned) or **ietf-action@ietf.org** at any time. Email will primarily be used to provide follow-up information / confirmation of trouble tickets opened via phone call.

Data Center Capabilities

Physical and Network Security

The Data Center and its immediate perimeter will be monitored 24 hours per day, 7 days per week, 365 days per year. Access to the VENDOR facility and Data Center will be managed via separate security/access devices. Should VENDOR become aware of an unauthorized access to the Data Center that has an impact on the Secretariat Service, VENDOR shall (i) notify Customer and/or Recipient in writing, until changed with concurrence of IAD, (ii) investigate the unauthorized access and (iii) prepare a corrective action plan to prevent further unauthorized access.

Incident Management

VENDOR Resolution Responsibilities

VENDOR will provide to Customer and Recipient the help desk support to (i) answer routine questions and resolve problems with respect to use of the Secretariat Service and (ii) enable the IETF Community to report any defect or any failure of Service. In addition to telephone access, Customer Support will include access by means of electronic mail. Customer and Recipient will contact Customer Support at the phone number set forth above.

All incidents concerning failures of any element or aspect of the Secretariat Service that cannot be solved by Customer or Recipient personnel or representatives after making reasonable efforts that are within the VENDOR Span of Control, will be reported to Customer Support pursuant to the procedures outlined below. Any reported incident that is caused by a failure that is outside the VENDOR Span of Control will be returned to IETF Community with an appropriate explanation. Further, if there is an incident being addressed by Customer Support that is within the Customer Span of Control and outside of the VENDOR Span of Control, the incident will be closed and returned to Customer and/or Recipient for proper resolution.

Customer Responsibilities

The following section identifies the responsibilities of Customer personnel and representatives under this document. Customer acknowledges that its failure to perform in accordance with the responsibilities set forth below or elsewhere in the Master Services Agreement, the Addendum or any other Exhibit or Addenda between the Parties, shall expressly waive any and all liabilities, damages and claims resulting out of VENDOR's failure to perform due to Customer's material noncompliance.

Incident Responsibilities

- Initiate a trouble ticket that clearly states the problem after gathering pertinent information about the incident, including message target number and any other additional information that the parties mutually determine is important to resolution of the incident.
- Provide VENDOR with necessary information that is relevant to the service
- Coordinate among Customer's operational and technical personnel as they interact with VENDOR or its designees for incident resolution.

Technical Responsibilities

- Understand and remain knowledgeable about problems that may arise during usage of the Secretariat Services to support all decisions.
- Understand and remain knowledgeable with respect to functionality of various Secretariat operations.
- Understand and remain knowledgeable about Customer setup's and be capable of discerning whether an incident is internal to Customer operations before identifying the incident as a trouble ticket for VENDOR.
- Resolve incidents or problems with the Secretariat Services that are within the Customer Span of Control.

Incident Handling by VENDOR

Customer Support will coordinate incident isolation, provide community notification and testing & repair work within VENDOR and all third party systems that are within the VENDOR Span of Control. During the incident isolation and troubleshooting process, Customer Support will communicate incident resolution progress to the IETF Community based upon the times specified on Table 2 below, and resolve the incidents in accordance with the timeframes specified in Table 2. Severity 1 issues are considered to be Unscheduled Downtime unless otherwise agreed to in writing by Customer.

Additionally, VENDOR will proactively inform the IETF Community when an issue or condition arises that necessitates the creation of trouble tickets. VENDOR will resolve incidents within the VENDOR Span of Control within the timeframes set forth below.

VENDOR will resolve outages within the timeframes set forth in Table 2. VENDOR will provide a similar commitment as set out in Table 2 to Recipient's

 Table 2 – VENDOR Support Services Response and Incident Handling Notification

 Timetable

Severity Level	Conditions	Update Method	Resolution	Closure
Severity 1	Complete loss of service	Ietf-	First update within 8	Customer
Critical	and work cannot	action@	hours of	receives a
Cintical			acknowledgement.	workaround or

Business	reasonably continue.	ietf.org	Subsequent updates	information
Impact	reasonably continue.	<u></u>	every 8 hours after first update.	that resolves the issue. or a
	Real or perceived data loss or corruption.		VENDOR's customer support will work continuously to resolve	patch is implemented, if issue is due
	An essential part of the service is unusable.		the problem. Customer acknowledges that it shall make available resources to VENDOR's	to a software defect within 3 hours.
	No workaround is available.		customer support to assist in the resolution of the problem. Fixes will	VENDOR shall provide
			be applied as emergency patches.	root cause analysis and resolution on
			The Severity Level may be downgraded if a viable workaround is established.	all Customer- specific Severity 1 issues.
Severity 2	This incident level is attained when any of the following conditions are met within VENDOR's Span of Control: A significant degradation of the service occurs	Ietf- action@ ietf.org	Acknowledgement of issue within 2 business days with an estimated time to resolve.	Customer receives a workaround or information that resolves the issue. or a
	A high impact issue with a workaround. A critical capability cannot be accessed by a method that is part of the product design, but it can be accessed by one or more alternate methods.		The Severity Level may be downgraded if a viable workaround is established and fixes included in the next maintenance release.	patch is implemented, if issue is due to a software defect within 2 business days
	Essential functionality of the Secretariat Services operates in a way that is			VENDOR shall provide

	 materially different from those described in this <u>Addendum</u>. A complete outage of the following: Any of the VENDOR support tools is unavailable. These tools include monitoring, and reporting tools or trouble ticketing system. 			root cause analysis and resolution on mutually agreed upon Severity 2 issues,
Severity 3	This incident level is attained when any of the following conditions are met: The Platform is usable but is not functioning in accordance with the requirements set forth in this Agreement and the error condition has no substantial impact. The Severity 3 trouble has a minor impact on Services or resource where it may cause some impact but the trouble can be circumvented.	Ietf- action@ ietf.org	VENDOR will open trouble tickets and report upon closure. Monthly reports will reflect all remaining open trouble tickets.	Acknowledge ment of issue within 2 business days with an estimated time to resolve. Fix or workaround in fourteen business days.

Escalation Procedures

An Escalation: Regardless of an incident's severity level, escalation is warranted and will occur according to the time for response as outlined on Table 3 below.

Escalation Path for Technical Support Issues: If Customer is not satisfied with the technical support provided by VENDOR; Customer may request escalation from the VENDOR Customer Service desk. The VENDOR customer support dispatcher will

immediately escalate the call to the appropriate supervisory level, and a representative will contact the customer or recipient within two (2) hours (severity 1), four (4) hours (severity 2), or two (2) business days (severity 3).

Incident Reporting Process

Communicating Incidents

Customer will communicate incidents to VENDOR in the following manner:

• Customer will open trouble tickets via email <u>ietf-action@ietf.org</u>, until further notice by IAD Trouble tickets can be reported at any time. Email will primarily be used to provide follow-up information / confirmation of trouble tickets opened.

Information for Incident Reporting

For each incident, Customer will provide VENDOR with necessary information that will facilitate timely problem determination and resolution. Upon notification of the incident, VENDOR will verify receipt of the necessary information. The following is the information that will be obtained from Customer for all reported incidents. (The information marked "Optional" is only required if it is available to Customer and determined by Customer to be appropriate):

- Reference number assigned by Customer (Optional);
- Time and date of the transaction in question (Customer to use reasonable commercial efforts to obtain this information);
- Description of the incident;
- Severity of the incident or problem ("Optional");
- List of those actions taken by Customer to verify the problem and resolve the incident;
- Other comments to provide additional information as needed ("Optional"); and

If clarification of this information is necessary to resolution of the incident, VENDOR will immediately contact Customer to request such clarification. VENDOR will begin investigating the incident upon receipt of the information and provide feedback to Customer as detailed in this Incident Reporting Process section. The trouble ticket is deemed "open" when VENDOR has received information outlined above. The trouble ticket will remain open until VENDOR believes that issue has been resolved. However, Customer may reopen the incident if desired for any reason at any time.

Incident Reports

Root Cause & Analysis ("RCA")

The purpose of the Root Cause and Analysis is to identify the cause of the incident and identify corrective actions to prevent its reoccurrence. For all Severity 1 tickets VENDOR will create an RCA and provide such report to Customer within three (3) business days of the close of the incident.

Maintenance Management

Planned Maintenance by VENDOR

VENDOR will ensure that any planned maintenance events will be executed in a wellcoordinated manner. Proper execution includes advance notification to the IETF Community by Customer Support through the use of mailing lists and posting on the website and approval by the IAD.

VENDOR conducts planned maintenance activities on a regular, scheduled basis. This schedule will be coordinated with the IAD and communicated to the IETF community.

Service Interruptions and Advanced Notification Requirements

For all other Scheduled maintenance activities, VENDOR will provide the IAD with at least three (3) business days advance notice via e-mail. VENDOR will assume that the scheduled maintenance is acceptable unless VENDOR is advised via e-mail within one (1) business day prior to the time of the planned event

VENDOR reserves the right to execute emergency maintenance at any time without notice, but will notify the IAD and the IETF Community as soon as possible (targeting notification at least 120 minutes prior to event). "Emergency" shall mean that VENDOR has become aware of a problem that, if an immediate remedy is not implemented, will prevent VENDOR from continuing to support and provide the elements and aspects of the Secretariat Service. Any downtime that would otherwise meet the definition of Unscheduled Downtime and which results from emergency maintenance will be included as "Unscheduled Downtime" from the overall system availability measurement.

Canceling Planned Service Interruptions

In the event of an IETF emergency, the IAD may request to cancel a planned service interruption. VENDOR will make commercially reasonable efforts to cancel the service interruption, if it does not impact other required maintenance and if the IAD notifies VENDOR within 24 hours prior to the scheduled start time of the maintenance window. Any notification of cancellation must come directly from the IAD or IAOC via phone, fax or email.

Restrictions Associated with Customer's Cancellation

In the event that the IAD cancels a planned service interruption, any downtime that results from failure to perform the maintenance that otherwise would have been performed during the planned service interruption will be excluded from the overall Service Availability measurement and the "Unscheduled Downtime" as defined.