



United States Department of Agriculture  
Foreign Agricultural Service



## **Infrastructure Management**

# **Quality Assurance Surveillance Plan (QASP)**

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## 1 Introduction

The Quality Assurance Surveillance Plan (QASP) contains the high-level IT management requirements and strategies needed to manage and provide the proper quality of IT Infrastructure Management Services for Foreign Agricultural Services (FAS) rendered by the Contractor. It focuses on “how” service quality will be delivered along with targets in the form of Key Performance Indicators (KPIs). These KPIs define the parameters for the ITIL Service Delivery and Support processes as well as for any IT operational management processes.

A detailed plan for each ITIL Service Delivery and Support area is then developed by the Contractor (service supplier) to ensure that it meets the service quality requirements set forth in the QASP.

## 2 Work Requirements

The detailed work requirements of the IT Management Services contract are set forth in the Performance Work Statement and summarized in Appendix-B (“Performance Requirements Summary versus Performance Metrics”) of this QASP. Specifically, in the table in Appendix-B, Columns C specifies the Performance Objectives (Desired Outcomes) for respective PWS sections.

In brief, the work requirements correspond to the following categories:

- Mission-critical goals and Scope of IT Infrastructure Management Services
- General Requirements
- Project and Program Management
- Network Services and Operations
- Telecommunications Support
- Helpdesk Support
- Facility Management
- Foreign Installations
- System Documentation and Operating Procedures
- Potential Requirements for the Future
- Deliverables and Reporting
- Quality Assurance
- Earned Value Management

The goal of the IT Infrastructure Management Services is to provide a high level of service quality, as measured by a defined set of Key performance Indicators (**KPIs**) and surveillance methodology specified in this QASP.

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### 3 The Primary Methods of Surveillance

In general, cost-effective quality surveillance will involve a combinational use of the following methods:

- **100 Percent Survey.** This is recommended for mission critical issues and issues related to actual system failures and incidents; otherwise, it is not cost-effective and is too stringent.
- **Random Sampling.** Appropriate for recurring tasks or productions requirements.
- **Periodic Inspection.** Use a pre-determined plan based on analyses of agency resources and requirements.
- **Customer Input.** Suitable for service-oriented tasks; use a standard form to document.
- **Contractor Self-Reporting.** Appropriate for tasks like system maintenance where the contractor can provide system records collected by tracking and monitoring tools of that document performance; for development projects, monthly reports can detail problems encountered.

The specific applications of these surveillance methods to this IT Infrastructure Management Services contract are described in sections 5 to 7 of this QASP.

### 4 Scope of Performance

The Scope of Performance (Performance Requirements) is specified in the Work Performance Statement (PWS, sections 1 & 3), and summarized in Appendix-B (“FAS PWS Objectives/Requirements vs. Performance Metrics) of this QASP. Specifically, in the table in appendix-B, Columns D specifies the “Performance Requirements” for respective PWS sections.

It is the objective of this contract to fulfill the specified requirements as measured by the set of Key Performance Indicators (KPIs) and surveillance methods specified in sections 5 to 7.

### 5 Performance Standards

The Performance Standards specified for measuring the performance of FAS IT Infrastructure Support Services contract consist of a set of 15 Performance Metrics (Key Performance Indicators – KPIs, labeled 1,2, 3,....., 15), falling under 8 main performance categories (labeled, A, B, C,....., H), as follows:

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Category	Performance Metrics (Key Performance Indicators -KPIs)
A: Satisfaction Rating & Evaluation	1. User Satisfaction Rating
	2. Management Evaluation Rating
B: Infrastructure /Network	3. Availability
	4. Time-to-Resolution
C: Operation & Maintenance	5. Maintenance/Backup Audit
D: Help Desk	6. Tier-1 Resolution
	7. Tier-2 Resolution
	8. First-Call Resolution
	9. Caller Wait Time
E: Reporting	10. Reporting Assessment
F: Documentation & Process	11. Documentation & Process Audit
G: Security	12. Risk Mitigation
	13. Security Audit
H: Inventory	14. Inventory Audit

The detailed definitions for the 154 performance are provided in a table in Appendix-A (“Performance Evaluation Matrix”). Specifically:

- Column-D of the table in Appendix-A provides the definitions of the 15 performance metrics.
- Column-C of the table shows, for each of the 14 metrics, the corresponding PWS sections numbers, for which the respective Required Services are covered by the individual metrics.
- Column-E of the table provide the specified **Acceptable Quality level (AQL)** which will serve as performance target values for each of the 15 metrics.
- It is of particular interest to note that the Metric #3 (Management Evaluation on Contract Goals) attempts to assess contract achievement on the basis of:
  - a) Cost Reduction,
  - b) Technology innovation,
  - c) Milestones,
  - d) General Performance and
  - e) Environmental Impact.

Furthermore, in Appendix-B (“FAS PWS Objectives/Requirements vs. Performance Metrics”), Column-E of the table provides an inverse mapping of the subsets of performance metrics, which address the Performance Objectives (Desired Outcomes) of respective PWS sections.

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## 6 Performance Evaluation Methodology

The performance evaluation will be conducted based on the specifications provided in columns F, G and H of Appendix-A (Performance Evaluation Matrix):

- **Column-F: Monitoring Method** – specifying the measurement and surveillance methods (100% and/or random sampling), reporting frequency (monthly or quarterly) or measurement/tracking tools.
- **Column-G: Incentives/Disincentives** - specifying for points (+1 or -1) for measured metrics meeting or not meeting the respective specified AQL target values.
- **Column-H: Assigned Weightings-** for providing additional assigned weightings (x1, x2 or x3) in accordance with the relative importance of the metrics for achieving FAS's missions, resulting in the fully weighted range of [- 24 to +24] points.

**Performance Measurement and Evaluation.** The performance metrics will be measured every quarter.

- During the Base Year, the performance metrics will be measured but the performance scores will not be used for award term decisions (as incentive or penalty). Nonetheless, quarterly measurements will be made to allow continuous improvement on contract performance.
- At the end of the first Option Year, the average of the performance scores of the four quarters of the year will be used for the first Award Term decision according the Rating Scheme as stipulated in c). Similarly, at the end of the second Option Year, the averaged score of the year will be used for the second Award Term decision.

## 7 Incentives (Positive and/or Negative)

Using the Performance Evaluation Methodology (Section 6), a **Composite Annual Score** is computed by taking the average of the four quarterly scores, and rated against the possible full range of [-24 to +24] points.

Award Term (positive and/or negative) will be determined in accordance with the following Rating Scheme:

- Excellent : [+21 to +24] points receives 1 full year
- Good : [+17 to +20] points receive half year

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- Satisfactory : [+13 to +16] points is neutral
  - Marginal : [+9 to +12] points is penalized half year
  - Unsatisfactory : less than or equal to +8 points is penalized 1 full year

More specific Award Term contract clauses are provided in the Contract and PWS documents.

**"HELPFUL HINTS:**

1. This QASP includes measurement of a significant number of reports and large amounts of data. Trying to measure too many things may be unwieldy and inefficient.
2. Take note of how the performance standards are weighted in Appendix A, page 9. This is a creative way to let the contractor know what's most important.
3. Appendix B repeats most, if not all, of the PWS. While it isn't incorrect, there may be a better way to incorporate these elements without repeating them.

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## **Appendix-A: Performance Evaluation Matrix**



	A	B	C	D
#	Category	Performance Objectives (Desired Outcomes)	Required Services (PWS Section #)	Performance Standards (Performance Metrics, Key Performance Indicators - KPIs)
1	A: Satisfaction Rating & Evaluation	Ensure a high level of overall user satisfaction for all FAS IT services	1.3, 3.1, 3.3, 3.4, 3.5, 3.10	<b>User Satisfaction Rating:</b> For 100% calls/tickets and random sample of general users on user-perceived service quality for all services; Score 5 to 1 [5:Excellent, 4:Very Good, 3:Satisfactory, 2:Marginal 1: Unsatisfactory (Re-open ticket)]; Monthly Report. AQL: > x% scores at score 4 and 5
2		Ensure a high level of Management/Staff satisfaction on the contract's day-to-day performance in all functional areas and meeting FAS envisioned goals.	1.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.8, 3.9, 3.10, 3.11, 10.1, 16	<b>Management Evaluation Rating:</b> Rating by Management & Staff of FAS ITD & Contract Office is solicited, obtained, reported and stored quarterly for each of the required services, and annually for meeting FAS ITD envisioned goals pertaining to: (A) Cost Reduction, (B) Technology Innovation, (C ) Milestones, (D) General Performance, and (E) Environmental Impacts . Rating score 5 to 1 . AQL: > x% scores at score 4 and 5
3	B: Infrastructure /Network	Ensure proper operation of infrastructure to guarantee service availability (up-time) for all services.	3.3, 3.4, 3.8	<b>Availability:</b> Ensure proper operation of infrastructure to guarantee service availability (up-time) for all services: Network, Intranet, Internet WWW, E-mail, Remote Access, Messaging, Virus/intrusion protection, Virus-clean-up and Server Operations. AQL: x% availability.
4		Ensure quick response and resolution for addressing service and network problems.	3.3, 3.4	<b>Time-to-Resolution:</b> Respond to all windows servers and network infrastructure problems within 30 minutes, and resolve the problems within 1 hour of failure: AQL: x % of the time
5	C: Operation & Maintenance	Ensure a high quality of operations and maintenance support.	1.3, 3.1, 3.3, 3.4, 3.8, 3.9	<b>Maintenance/Backup Audit:</b> Perform all system maintenance, backup and upgrade pursuant to PWS specifications and/or as directed by FAS/ITD staff - AQL: > x % completion versus set target
6	D: Help Desk	Ensure a high quality of Tier-1 user support	3.5	<b>Tier-1 Resolution:</b> Tier-1 call resolution support is handled solely by service desk personnel. ≥85% resolved by Help-desk; ≤15% passed to second level. Help-desk tickets (Tier-1) are responded to within 2 operational hours and resolved within 4 operational hours. AQL: x % of the time
7		Ensure a high quality of Tier-2 user support	3.5	<b>Tier-2 Resolution:</b> Tier-2 call resolution support is provided with the help of Contractor Technical Staff outside of the Help-Desk: ≥x % resolved at Teir-2, and < (100 -x) % passed to Tier-3 support, all within 8 hours. AQL: x% of the time
8		th percentage of trouble tickets during first contact.	3.5	<b>First-Call Resolution:</b> x% of Help-desk tickets are resolved during first call/contact. AQL: x %
9		t waiting time for all calls help.	3.5	<b>Caller Wait Time:</b> x% of all calls placed to the Help Desk are answered by Help Desk staff within 30 seconds of call initiation and y% within 1 minute (60 seconds). AQL: x% and y %.
10		tract reporting fulfils all PWS and ement requirements	6, 3.2, 3.3, 3.4, 3.5, 3.7, 3.9, 16	<b>Reporting Assessment:</b> All reports and notifications (daily, weekly, monthly and ad-hoc reports, and incident notification,.. etc) as stipulated in PWS are submitted on-time and in the format specified x% of the time. AQL: x%
11		prehensive, accurate, timely and infrastructure documentation and with standard operating	3.11, 1.3, 3.1, 3.2, 3.4, 3.5	<b>Documentation &amp; Process Audit:</b> Ensure infrastructure documentation, configuration management, security/privacy procedures, disaster recovery plan, and standard operating procedures (SOPs) are meeting the targets specified in PWS and/or set by FAS/ITD management/staff. Quarterly Audit: 98% of set target achieved. AQL: 98%
12		pliance with security guidelines nents	3.7, 15	<b>Risk Mitigation:</b> Evaluate current threats to the application environment: High risk events should be mitigated within one business day x% of the time . AQL: x%
13			3.7, 15	<b>Security Audit:</b> Ensure compliance with all relevant government Information System Security Requirements, including FISMA, POA&M, COMSEC, incident handling, certification & accreditation x% of the time, AQL: x%
14		prehensive, accurate and timely inagement of IT equipment and	3.6, 3.5	<b>Inventory Audit:</b> Maintain an inventory of all equipment and system resources (i.e. disk storage, memory usage, network load) and update assess management system in any calendar month. Semi-annual Inventory Audit for data/reports of past 6 months. AQL: x% accuracy

Matrix

1/2

Performance Evaluation 1

E	F	G	H	
Acceptable Quality Level (AQL)	Monitoring Method	Incentive/Disincentive for Meeting/Not Meeting AQL	Assigned Weighting : sum: [-24, +24]	#
95%	<b>User Satisfaction Rating:</b> For 100% calls/tickets per tracking system, and random sample of general users on user-perceived service quality for all services; Monthly Report	≥AQL +1 <AQL -1	x3	1
95%	<b>Management Evaluation Rating :</b> Quarterly Rating by Management & Staff of FAS ITD & Contract Office is solicited, obtained, reported and stored once a quarter for each of the required services; Annual FAS/ITD Management Evaluation of overall contract performance in meeting FAS/ITD envisioned goals pertaining to: (A) Cost Reduction, (B) technology innovation, (C) Milestones, (D) General Performance, and (E) Environmental Impacts	≥AQL +1 <AQL -1	x3	2
99.9%	<b>Availability:</b> Compilation of Availability statistics for all services from respective monitoring and tracking systems. Availability = 1 - { [Sum: (hours of each outage * number of users affected by each outage)] / [total number of users * days in month * 24 hours]}. Note: Exclude pre-scheduled outages.	≥AQL +1 <AQL -1	x2	3
98%	<b>Time-to-Resolution:</b> Monthly compilation of Time-to-Resolution statistics for all services from respective monitoring and tracking systems	≥AQL +1 <AQL -1	x1	4
98%	<b>Maintenance/Backup Audit:</b> Monthly compilation of maintenance, backup and upgrade records and reports.	≥AQL +1 <AQL -1	x1	5
95%	<b>Tier-1 Resolution:</b> Monthly compilation of Help Desk tacking system records (e.g. FootPrint, Remedy, TrackIt).	≥AQL +1 <AQL -1	x2	6
95%	<b>Tier-2 Resolution:</b> Monthly compilation of Help Desk tacking system records (e.g. FootPrint, Remedy, TrackIt).	≥AQL +1 <AQL -1	x1	7
80%	<b>First-Call Resolution:</b> Monthly compilation of Help Desk tacking system records (e.g. FootPrint, Remedy, TrackIt).	≥AQL +1 <AQL -1	x1	8
% -30 sec; % - 60 sec.	<b>Caller Wait Time:</b> Monthly compilation of Help Desk tacking system records (e.g. FootPrint, Remedy, TrackIt).	≥AQL +1 <AQL -1	x1	9
95.50%	<b>Reporting:</b> Quarterly compilation of all types of reporting status.	≥AQL +1 <AQL -1	x2	10
98%	<b>Documentation &amp; Process Audit:</b> Quarterly Documentation and Process Audit.	≥AQL +1 <AQL -1	x2	11
98%	<b>Risk Mitigation:</b> Monthly compilation of monitoring and tracking data for Security.	≥AQL +1 <AQL -1	x2	12
100%	<b>Security Audit:</b> Semi-annual audit of monthly reports on password and privileged account information for the past 6 months for correctness and timeliness.	≥AQL +1 <AQL -1	x2	13
%	<b>Inventory Audit:</b> Semi-annual audit of inventory tracking and asset management data/reports of past 6 months.	≥AQL +1 <AQL -1	x1	14

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## **Appendix-B: FAS PWS Objectives/Requirements vs. Performance Metrics**

A	B	C	D	E
PWS Sec. #	PWS Section Title	Performance Objectives (Desired Outcomes)	Performance Requirements	Covered by Metrics (Key Performance Indicators - KPIs)
1.3 & 3.1	Scope & General Requirements	Ensure that FAS IT resources are managed, supported, sustained and upgraded as necessary to keep pace with changing technology and mission requirements in an efficient and effective manner		Management Evaluation Rating, User Satisfaction Rating, Maintenance/Backup Audit, Documentation & Process Audit
			Perform program and project management, network operations and services, security operations and services, desktop management, email management, server management, IIS administration, helpdesk services, telecommunications support, foreign installation of hardware and software. The contractor shall provide all personnel, tools, materials, supervision and other items necessary to perform these tasks. The services under this contract cover all FAS locations.	
3.2	Program & Project Management	Provide effective Program and Project Management to fulfill FAS goals and ITD management expectations		Management Evaluation Rating, Documentation & Process Audit
			a) Use Projects Management standards to develop systems and processes necessary for tracking the executions of projects. b) Use the agency's project management software to track projects and tasks. c) Ensure completions of deliverables, track milestones and adherence to timeliness across projects and institute necessary workflow alterations	
		Ensure effective management of all FAS LAN servers in a large multi-server network		Availability, Time-to-Resolution, User Satisfaction Rating, Management

A	B	C	D	E
PWS Sec. #	PWS Section Title	Performance Objectives (Desired Outcomes)	Performance Requirements	Covered by Metrics (Key Performance Indicators - KPIs)
			Physical and Logical Network topology and WAN Links Documentation	
3.5	Help Desk Management	To ensure high-quality and responsive IT support for all users of FAS IT systems, including resolving remote user's hardware and software problems, with high user and management satisfaction.		Tier-1 Resolution, Tier-2 Resolution, First Call Resolution, Caller Wait Time, User Satisfaction Rating, Management Evaluation Rating, Documentation & Process Audit, Inventory Audit, Reporting Assessment
			Use Industry best practices - ITIL	
			Automated procedure for recording, tracking, and resolving all issues and trouble tickets.	
			Timely problem escalation to upper Tiers when needed	
			Maintain Knowledge Base to improve Tier-1 resolution	
			Timely and satisfactory resolution of all trouble tickets	
3.6	Asset/Inventory Management	Ensure comprehensive, accurate and timely inventory management of IT equipment and resource.		Inventory Audit
			Maintain complete, up-to-date and accurate inventory database for all IT equipment.	
		Ensure effective support to assist FAS with Information System Security Program for its		Security Audit, Risk Mitigation, Reporting Assessment
3.7	Security Support	Ensure effective support to assist FAS with Information System Security Program for its	Information system security requirements	
			Comply with all relevant government Information System Security Requirements, including FISMA, POA&M, COMSEC, incident handling, certification & accreditation.	
	3.8	Facility Management	Ensure complete, orderly and efficient operational support of the FAS Computer Facilities (FASCF)	Management Evaluation, Maintenance/Backlog Audit, Availability
			Monitoring of equipment performance	

A	B	C	D	E
PWS Sec. #	PWS Section Title	Performance Objectives (Desired Outcomes)	Performance Requirements	Covered by Metrics (Key Performance Indicators - KPIs)
3.9	Hardware Maintenance	Ensure high-quality and on-time technical support for warranty repair, preventive maintenance and out-of-warranty equipment repair services for equipment inside and outside FASCF		Management Evaluation Rating, Maintenance/Backup Audit, Reporting Assessment
			Provide effective hardware support on time and meeting ITD management requirements	
3.10	Foreign Installations	Ensure high-quality support to users in foreign installations		Management Evaluation Rating, User Satisfaction Rating
			Provide all necessary personnel to install, upgrade, test, configure and document hardware and software to FAS overseas offices.	
3.11	System Documentation and Operating Procedures	Ensure comprehensive, accurate and timely infrastructure documentation and compliance with standard operating procedures.		Documentation & Process Audit
			Documentations for: Ad-hoc service procedures, Network diagram, Off-Hours/emergency team contact list, User manuals, Configuration, Contingency Planning and System Recovery Procedures, Custom programming, Ethernet address/equipment location database, Dial-in access database, Equipment inventory, registration and repair log database, Onsite and offsite backup tape library inventory, Production migration requests and results, Computer facility visitor log, etc.	
6	Deliverables and Reporting	Ensure timely, updated, accurate, comprehensive and unified reporting to FAS management on all activities and status in all functional areas of the Infrastructure		Reporting Assessment, Management Evaluation Rating
10.1	Key Personnel	Ensure stable and highly qualified contract key personnel team for support of FAS key functional area and effective communication with Contractor's senior corporate executive for achieving Program's high-level goals and issue escalation.		Management Evaluation Rating
15	Security	Ensure effective support to assist FAS with General Security Program for its multi-server worldwide network environment, in compliance all relevant government information system security requirements		Security Audit, Risk Mitigation, Reporting Assessment
16	Earned Value Management (EVM)	Ensure that Contractor's earned value management system (EVMS) complies with the EVMS guidelines in ANSI/EIA Standard - 748 required by the contract.		Management Evaluation Rating, Reporting Assessment