

National Incident Management System Supporting Technology Evaluation Program (NIMS STEP) Inspection Report

Quality Administration Emergency Services 4.3.1.2.1

September 2010



FEMA

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EXECUTIVE SUMMARY

This report presents the results from an evaluation of Quality Enhanced Management Systems' Quality Administration Emergency Services (QAES) 4.3.1.2.1. This evaluation was managed by the Federal Emergency Management Agency (FEMA) and was conducted from 24 through 27 May 2010 as part of the National Incident Management System Supporting Technology Evaluation Program (NIMS STEP).

The type of evaluation performed for a system¹ is dependant on the system's incorporation of National Incident Management System (NIMS) concepts and principles and/or NIMS recommended technical standards. This is a Comprehensive NIMS Evaluation; therefore, addresses NIMS concepts and principles. The evaluation does not address NIMS recommended technical standards. This evaluation had two objectives: The first was to inspect the product's incorporation of NIMS concepts and principles. The second was to identify the applicability of core capabilities recognized by the Target Capabilities List (TCL).

QAES is a resource management and Quality Assurance (QA) system. The system provides users the ability to classify resources using FEMA's resource typing definitions. QAES provides dispatch centers with a QA and management product that evaluates all dispatched incidents. Additionally, QAES permits users to generate various reports.

The vendor installed QAES along with supporting software on workstations for participants use during the evaluation. Participants accessed QAES with vendor provided usernames and passwords. The vendor provided NIMS STEP participants with user guides and conducted eight hours of presentation, demonstration, and hands-on training on-site at the Incident Management Test and Evaluation Laboratory (IMTEL)². Assessors with knowledge in the areas of emergency response and management conducted an

¹ The terms product, system, and technology are used interchangeably throughout this report.

² The laboratory is located within the Science Applications International Corporation's (SAIC) Somerset, Kentucky facility.

inspection of the system, and provided a qualitative analysis and feedback on QAES based on concepts and principles from the NIMS document (December 2008). Assessors also identified which of the core capabilities from the TCL (September 2007) apply to the product.

NIMS Concepts and Principles

Table 1: NIMS Criteria Summary Table, below provides a summary of findings for NIMS criteria. Key elements identified within each NIMS criterion are cited as Minimum Product Requirements. These requirements were derived from the NIMS document and impact the overall rating of the product’s adherence to NIMS concepts and principles. The numbers provided below summarize ratings (Agree, Disagree, Not Applicable) for Minimum Product Requirements within each NIMS criterion.

Table 1: NIMS Criteria Summary Table

NIMS Criteria (Number of Minimum Product Requirements)	Rating Summary		
	# Agree	# Disagree	# Not Applicable
Emergency Support (1)	1	0	0
Hazards (1)	1	0	0
Communication and Information Management (6)	4	0	2
Resource Management (10)	7	0	3
Command and Management (2)	1	0	1

Note: A description of the NIMS criteria and Minimum Product Requirements is provided in [Appendix A](#).

QAES is consistent with all NIMS criteria (Emergency Support, Hazards, Communication and Information Management, Resource Management, Command and Management). Overall, QAES applies to and is consistent with 14 of 20 Minimum Product Requirements. An overview for each NIMS criterion is provided below; explanations of all findings are provided in section [3.0 Results](#).

Emergency Support:

QAES meets the Minimum Product Requirement for Emergency Support as the system is consistent with applicable Emergency Support Functions (ESFs) and core functions of the Incident Command System (ICS). QAES applies to all ESFs and is applicable to 1 of 9 Incident Command functions (Logistics).

Hazards:

QAES meets the Minimum Product Requirement for Hazards as the system is applicable to at least one hazard. The system applies to natural and manmade hazards.

Communication and Information Management:

QAES meets 4 of 6 Minimum Product Requirements for Communication and Information Management. QAES meets the SAFECOM Interoperability Continuum for data sharing via swapping files, common applications, custom-interfaced applications, and one-way standards-based sharing. The system is applicable to small and large scale incidents and to multiple agencies and disciplines during incidents/events. Additionally, QAES provides adequate controls to restrict access to sensitive information.

Resource Management:

QAES meets 7 of 10 Minimum Product Requirements for Resource Management. The system provides users the ability to attach Mutual Aid Agreements to resources. The system provides an integrated means for resource typing definitions; users can inventory FEMA typed and non-FEMA typed resources. The system provides a means for resource requesting. Additionally, QAES provides records for credentialed personnel and the QA feature provides a means for performing personnel accountability.

Command and Management:

QAES meets 1 of 2 Minimum Product Requirements for Command and Management. The system is applicable to and consistent with 13 of 14 management characteristics of ICS. QAES is not applicable with 1, Accountability. QAES does not utilize ICS organization charts; therefore, the system is not applicable to this Minimum Product Requirement.

Implementation Considerations:

It should take less than one month for a department/agency to implement this system. QAES can be easily implemented; the system is logically organized and easy to follow once training is received. The system requires in-depth training to allow for effective use and proper setup of the system. The system's help tool is not comprehensive, but the vendor provides customer support 24 hours a day, seven days a week (24/7). An overarching limitation for QAES is that it is considered a resource management system (in addition to the QA feature); the system provides users the ability to inventory resources, but it does not provide the ability to manage resources during an incident (e.g., order, track, demobilize, etc.). The primary capability of QAES is the QA portion of the system as it monitors a dispatch center's performance and encourages improvement.

TCL

Assessors identified that QAES applies to core capabilities that address common and respond mission capabilities. See [Appendix B](#) for a list of the core capabilities recognized by the TCL and [3.0 Results](#) for those capabilities that apply to the system.

1.0 INTRODUCTION

This report presents the results from an evaluation for Quality Enhanced Management Systems' QAES 4.3.1.2.1. Evaluation activities are managed by FEMA's National Preparedness Directorate (NPD). The FEMA NPD provides strategy, policy, and planning guidance to build prevention, protection, response, and recovery capabilities among all levels of government throughout the nation. In support of this effort, the NIMS Support Center assists the responder stakeholder community with standards and technology integration, evaluations, exercises, and training activities relating to NIMS and preparedness. The NIMS Support Center is funded through the NIMS General Support Contract and managed by the Incident Management Systems Integration (IMSI) Division of the National Integration Center (NIC). The program includes operation of a Simulated Emergency Operations Center (SEOC) with supporting technologies located at SAIC's facility in Somerset, KY.

As part of the NIMS Support Center, NIMS STEP provides an objective evaluation of commercial and government software and hardware products to assist in the implementation of NIMS. Evaluation activities are designed to expand technology solutions and provide the emergency response community with an objective process to evaluate their purchases.

Products evaluated by NIMS STEP vary in system capabilities; therefore, NIMS STEP conducts four types of evaluations: Emergency Support Systems Evaluation (Tier IV), Comprehensive NIMS Evaluation (Tier III), Technically Focused Evaluation (Tier II), and Comprehensive NIMS Evaluation with a Technical Component (Tier I). Tier I products encompasses Tier II – IV capabilities as these are systems used by emergency managers and responders during incidents/events that have clear ties to NIMS incident command and implement one or more of the NIMS technical standards. Definitions for each tier are provided in **Figure 1: Tiered Evaluation Approach** below.

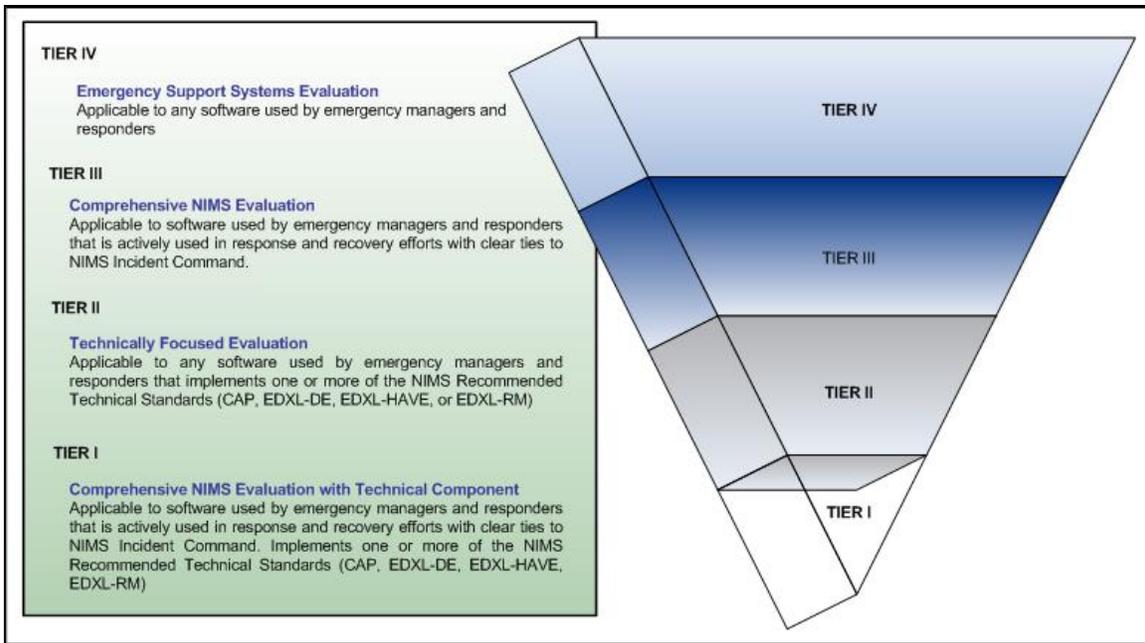


Figure 1: Tiered Evaluation Approach

A Comprehensive NIMS Evaluation was conducted for QAES. The intent of this evaluation was to determine the system’s ability to incorporate NIMS concepts and principles.

It is important to note that vendor participation in NIMS STEP is voluntary and the use of trade names and evaluation results in this document do not constitute a Department of Homeland Security (DHS) or FEMA endorsement or certification of the use of such commercial hardware or software. Evaluations do not constitute a determination of NIMS compliance.

1.1 Program Summary

NIMS provides a framework and sets forth, among others, the requirement for interoperability and compatibility to enable a diverse set of public and private organizations to conduct well-integrated and effective incident management operations. Systems operating in an incident management environment must be able to interact smoothly across disciplines and jurisdictions. Interoperability and compatibility are achieved through the use of tools such as common communications and data standards. Establishing and maintaining a common operating picture and ensuring accessibility and

interoperability are the principal goals of the Communication and Information Management criteria of NIMS.

NIMS STEP evaluations primarily take place in a controlled, SEOC-based environment. However, some systems may require an additional or alternate environment, such as a limited field setting. In these cases, the field setting is considered an extension of the laboratory environment.

The IMTEL is accredited through the American Association for Laboratory Accreditation (A2LA). To achieve accreditation status, the laboratory was required to meet general requirements for the competencies of testing and calibration laboratories, as provided in International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) 17025:2005. Following the requirements outlined in ISO/IEC 17020:1998, the program leverages qualified assessors to inspect products to determine if they follow established resource management and information management guidelines, among others. The current scope of accreditation and associated certifications are available on A2LA's website for [ISO/IEC 17025:2005](#) and [ISO/IEC 17020:1998](#).

Evaluations take place over the course of one week during which the evaluation team, known as the NIMS STEP team, gains hands-on experience with the systems. The NIMS STEP team typically consists of at least three assessors, one test engineer, and one test analyst for each system under evaluation. However, the number of participants is scalable based on the complexity of the evaluation. Participants adhere to a non-disclosure agreement and a code of conduct which ensures objectivity and the protection of the vendor's sensitive information.

1.2 System Description³

QAES is a resource management and QA system. QAES provides users the ability to classify resources (personnel, services, equipment, and vehicles) using FEMA's resource typing definitions. Users can enter both FEMA typed and non-FEMA typed resources into the system. QAES also provides multiple options to search and view resources. **Figure 2: NIMS Metrics Screen** depicts QAES' resource management feature for resource typing.

Order	Minimum Capabilities (Component)	Minimum Capabilities (Metric)	Type I	Type II	Type III
1	Chassis	Feet	48'-53' custom trailer, bus chassis, conventional cab/van chassis, or diesel motorhome chassis with or without slide-out room	35'-40' motorhome chassis with or without slide-out room	25'-35' Gas or diesel motorhome chassis, or custom trailer (trailer does require additional tow vehicle)
2	Interior	Workstations	6-10 workstations, with private meeting area for Command personnel	4-6 workstations, with private meeting area for Command personnel	2-4 workstations
3	Radio Frequency Transceivers	1 Unit	RF Communications with adjoining agencies, State agencies through mutual aid transceiver and any other frequencies	RF Communications with adjoining agencies, State agencies through mutual aid transceiver and any other frequencies	RF Communications with adjoining agencies, State agencies through mutual aid transceiver

Figure 2: NIMS Metrics Screen

³ The vendor provided the majority of information within this section. Participants did not verify all of the system's capabilities during the evaluation, only those associated with the standards and criteria under test.

In addition to classifying resources, QAES provides dispatch centers with a QA and management product that evaluates all dispatched incidents. The system processes every dispatched incident regardless to the nature of the incident or the service type assigned to the incident. Computer-Aided Dispatch (CAD) data is imported into QAES and the system processes law enforcement, fire, and emergency medical service dispatched incidents against QA indicators (parameters are set for the amount of time it takes to perform activities such as: call received to call answered, call answered to incident created, incident created to incident sent to dispatch, etc). The system allows for multiple levels of reviews and once an incident is sent for review, subsequent notices are automatically generated until a response is received from the reviewer. **Figure 3: Quality Assurance Screen** depicts incident information and review features QAES provides for QA.

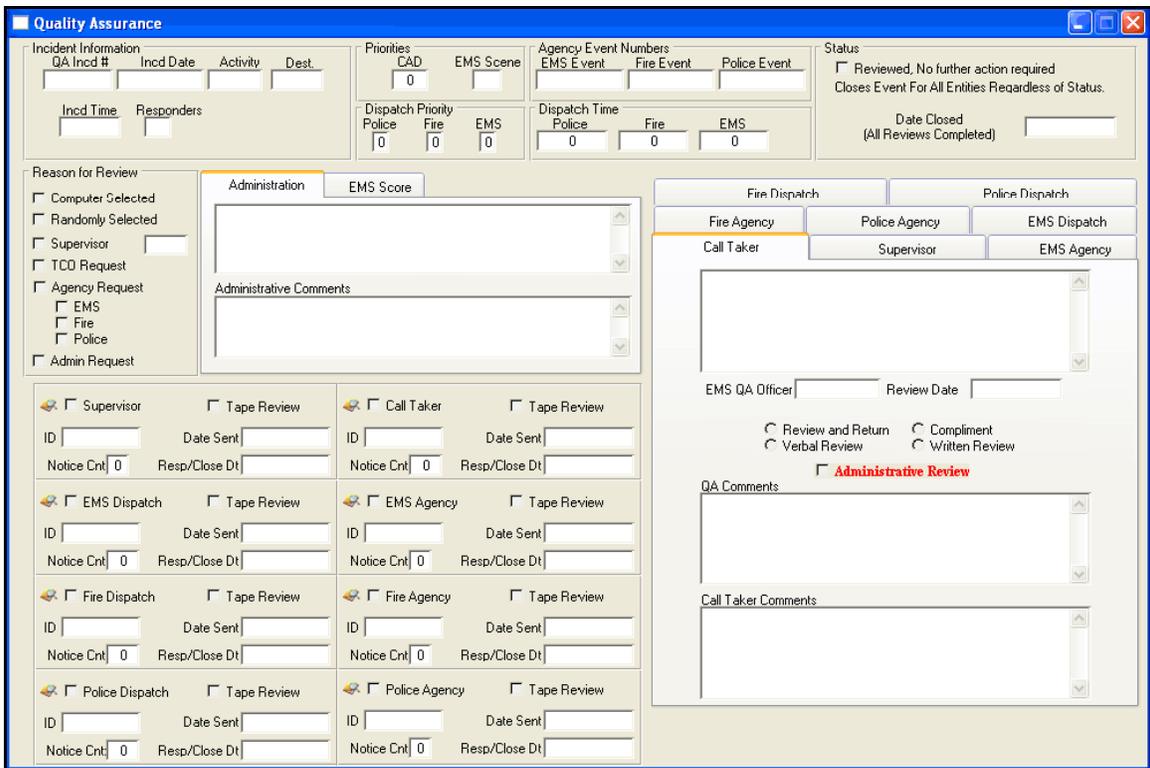


Figure 3: Quality Assurance Screen

QAES offers an array of reports including administrative, operational, QA and resource management. The report builder permits users to select various criteria and date ranges that will generate both simple and complex reports.

1.3 Objectives

The NIMS STEP team developed a set of objectives to provide the foundation for this evaluation (see **Table 2: Evaluation Objectives**).

Table 2: Evaluation Objectives

Objectives
Objective 1: Inspect incorporation of NIMS concepts and principles.
Objective 2: Identify applicable TCL core capabilities.

Objective 1 addresses the incorporation of NIMS concepts and principles.⁴ This included a determination of how the system applies to the criteria for Emergency Support, Hazards, Communication and Information Management, Resource Management, and Command and Management. General questions on the system, including implementation considerations of the product were also addressed.

Objective 2 addresses the applicability of core capabilities recognized by the TCL. This included identification of capabilities that address prevention, protection, response, and recovery, as well as common capabilities such as planning and communications that support all missions.

1.4 Evaluation Setup

The evaluation was conducted on-site at the IMTEL. The vendor installed QAES and supporting software on six workstations. One workstation was used as a standalone server. The vendor provided a copy of customer data for use during the evaluation and

⁴ All products are inspected for NIMS concepts and principles. The depth at which products are inspected for NIMS criteria depends on the type of evaluation conducted (e.g. a Comprehensive NIMS Evaluation [Tier III] or a Comprehensive NIMS Evaluation with a Technical Component [Tier I] is inspected in more detail for applicability to NIMS concepts and principles than is a Technically Focused Evaluation [Tier II]).

created participants' usernames and passwords for access to the system. Participants accessed the internet when using QAES' mapping feature. A test engineer managed the test environment, and was available to assist the vendor in resolving any technical issues.

1.5 Evaluation Schedule

The NIMS STEP team conducted the QAES evaluation from 24 through 27 May 2010.

Table 3: Evaluation Schedule provides a summary of key events and milestones.

Table 3: Evaluation Schedule

Event	Date(s) 2010
Evaluation Readiness Review	14 May
Administrative system setup and pre-evaluation checks	24 May
Participant training	24-25 May
Rehearsal of system evaluation procedures	25 May
Evaluation execution	26-27 May
Data analysis and Quality Control (QC)	27 May

On 14 May, the NIMS STEP team conducted an Evaluation Readiness Review to ensure logistic and technical preparations were complete. The vendor provided participants with eight hours of on-site training (presentation, demonstration, and hands on) from 24 through 25 May. The participants evaluated the system on 26 and 27 May.

1.6 Scope and Limitations

Table 4: Scope and Limitations, identifies issues that impacted the evaluation of QAES and the team's approach to mitigating them.

Table 4: Scope and Limitations

Limitation	Impact	Mitigation Strategy
QAES imports data from CAD systems for use in the QA portion of the system. NIMS STEP does not currently operate a CAD system as part of the evaluation environment.	When using QAES, participants were unable to input incident data into a CAD system and verify automatic transition of the data to the QA portion of the system.	The vendor provided participants files of dispatched incident data that was generated by one of their customer's CAD system. The vendor demonstrated how to manually import CAD data files into QAES.

2.0 EXECUTION

2.1 Participant Credentials

Table 5: Participant Credentials summarizes the NIMS STEP team’s areas of expertise, role during the evaluation, and years of experience. In addition to personnel identified below, Information Technology (IT) personnel provide technical support during evaluations as necessary and they maintain NIMS Support Center’s computer hardware and software.

Table 5: Participant Credentials

Current Title	Role	Years of Experience
Floodplain Manager	Emergency Management Assessor, NIMS Inspection (Experience: Emergency Management)	36
Inspector, (ret) U.S. Capitol Police	Emergency Management and Response Assessor, NIMS Inspection (Experience: Law Enforcement, Emergency Management)	35
Subject Matter Expert (SME)	Emergency Management Assessor, NIMS Inspection (Experience: Emergency Operations Center [EOC] Software, Emergency Management, Public Safety Data and Interoperability)	31
Systems Engineer	Test Analyst	6
Test Engineer	Test Engineer	17

2.2 Methodology

Assessors with knowledge in the areas of emergency response and management performed an evaluation for NIMS concepts and principles in a simulated operational environment. They also identified which of the core capabilities within the TCL apply to the product. The following sections describe the approach to the evaluation in more detail.

2.2.1 NIMS Inspection and TCL Identification

Prior to the inspection, the vendor loaded QAES with a copy of one of their customer's database and provided assessors with several exercises to assist them with understanding system functionality. During the inspection, assessors used the system's features/capabilities and documented their observations through the online Test and Evaluation (T&E) Data Collection System (DCS). Assessors also captured supporting screenshots.

2.2.1.1 NIMS Inspection

After using QAES, assessors completed a NIMS STEP Worksheet and provided qualitative feedback on the system based on concepts and principles from the NIMS. [Appendix A](#) provides a detailed description of the criteria used during the inspection. Assessors reviewed the system for applicability to the criteria Emergency Support, Hazards, Communications and Information Management, Resource Management, and Command and Management. Assessors also reviewed general questions about the product including implementation considerations. Input from the assessors was captured using a dichotomous scale – a quantitative method for measuring the agreement or disagreement for a set of NIMS-related statements. The NIMS STEP team designed these methods to help describe systems and determine the presence or absence of desirable attributes. The NIMS STEP Worksheet results are provided in section [3.0 Results](#).

2.2.1.2 TCL Identification

After using QAES, assessors completed a TCL – Core Capabilities Form to identify the applicable core capabilities. [Appendix B](#) provides a list of the 37 capabilities recognized by the TCL that address prevention, protection, response, and recovery, as well as common capabilities. Input from the assessors was captured for measuring the agreement of the core capabilities applicable to the system. The TCL – Core Capabilities Form results are provided in section [3.0 Results](#).

2.3 Post-Assessment Activities

A test analyst was present during the evaluation and collected required data from all participants; the test analyst ensured data integrity and control. The data collected during this evaluation included a collective NIMS STEP Worksheet, a collective TCL – Core Capabilities Form, electronically submitted observation logs and spot reports, and screenshots and photographs. Data analysis and QC began during the evaluation and concluded with the development of this evaluation report. QC activities include reviewing all data collected for accuracy and completeness. After the evaluation was concluded, the NIMS STEP team uninstalled QAES software and purged the vendor’s customer data from the IMTEL workstations.

3.0 RESULTS

3.1 NIMS Concepts and Principles

3.1.1 Objective 1: Inspect Incorporation of NIMS Concepts and Principles

Following requirements outlined in ISO/IEC 17020:1998, a qualified assessor inspected QAES to determine if the system incorporates NIMS concepts and principles, and documented results as identified in the following sections.

QAES is consistent with all NIMS criteria; it is consistent with Emergency Support, Hazards, Communications and Information Management, Resource Management, and Command and Management.

3.1.1.1 Emergency Support

QAES applies to and is consistent with all 15 ESFs. The system lists a definition for each ESF, it provides users the ability to associate a resource with an ESF, and users can search the system to find resources associated with an ESF. QAES applies to and is consistent with 1 of 9 ICS functions. The system supports the Logistics function as the system provides a list of equipment and personnel. A limitation for ESFs and Incident Command functions implementing this system is that QAES does not track resources throughout the course of an incident/event.

3.1.1.2 Hazards

QAES is applicable to natural and manmade hazards. It allows users to acquire a list of resources from the system that could be used during any type of hazard.

3.1.1.3 Communication and Information Management

Common Operating Picture:

QAES provides access to critical information as the system provides users the ability to enter resources into a repository and view a listing of static resource data. The system was not designed to provide users the ability to manage an incident (e.g., continual logging of incident activities). Therefore, users are unable to acquire a common operating picture or maintain situational awareness during an incident/event. The system reflects the location of municipalities, services (departments/agencies, businesses, etc.), and

personnel addresses on Google maps in both mapping and satellite mode. However, the system is not designed to portray an incident.

Interoperability:

The ability for users to complete ICS forms is not applicable to QAES as the system was not designed to provide this feature. QAES meets the SAFECOM Interoperability Continuum for data sharing via swapping files, common applications, custom-interfaces, and one-way standards-based sharing. The system is designed to pull data from a diverse group of CAD systems through a customized interface. The system is not applicable to the SAFECOM Interoperability Continuum for data sharing via two-way standards-based sharing.

Scalability:

QAES can be used during small- and large-scale events and is flexible and scalable to support the full spectrum of multi-agency and multi-discipline incidents and events. The system can be used in a mobile command configuration if it is in communications with the server(s). The system applies to multiple levels of the government and to the public and private sector.

Plain Language:

The principle of plain language (clear text) is not inherent to the system. The system allows users to enter any information into the database; these entries may include nomenclature other than what is defined in NIMS. It is the responsibility of an end user to use plain language.

Information Security:

The system provides a means to properly authenticate and certify users for security purposes and it provides controls to restrict access to sensitive information. The system requires usernames and passwords to log into the system and it provides a robust roles/permissions assignment capability. The system is installed on a server utilizing secure data exchange and encrypted capabilities at a customer site. A mirrored server can be used to provide redundancy capabilities.

3.1.1.4 Resource Management

QAES allows users to enter resources into the system and they can access a list of resources; however, QAES is not an exhaustive resource management system. The system provides users the ability to attach documentation such as Mutual Aid Agreements to a resource. QAES integrates FEMA's resource typing definitions and allows for the inventory of FEMA and non-FEMA typed resources. However, the system provides users the ability to modify the typed resource definitions developed by FEMA. The system provides a record of credentialed personnel and provides a means for performing personnel accountability via the QA portion of the system. QAES has the ability to capture contact information for personnel and equipment; this information can assist users when requesting resources, but the system does not provide users the capability to order resources. QAES has the ability to define attributes to a resource such as the owner and location (i.e., the typical location a resource resides). The system does not identify the location of a resource throughout the course of an incident. Therefore, the system does not track or provide a means to recover/demobilize resources. The system allows users to enter contractual costs for resources that may be used for reimbursement purposes, but the system does not allow for the computation of final costs.

3.1.1.5 Command and Management

QAES is consistent with 13 of 14 management characteristics of ICS: Common Terminology; Modular Organization; Management by Objectives; Incident Action Planning; Manageable Span of Control; Incident Facilities and Locations; Comprehensive Resource Management; Integrated Communications; Establishment and Transfer of Command; Chain of Command and Unity of Command; Unified Command; Dispatch/Deployment; Information and Intelligence Management. QAES is not applicable with the management characteristic Accountability as the system was not designed with an integrated ability to track or demobilize resources.

3.1.1.6 Implementation and Product Overview

It should take less than one month for a department/agency to implement this system (installation to proficiency). The system can be easily implemented as it is logically organized and easy to follow once training is received. In-depth training is required to

allow for effective use and proper setup of the system. Setup includes an accumulation of all resource data using proper nomenclature and knowledge of NIMS and the TCL. Implementation of the QA portion of the software requires thoughtful parameter setup for dispatch center performance and operation. The vendor offers online, train-the-trainer, on-site presentation and hands-on training. Training provided allows recipients to proficiently use the system and system documentation is comprehensive. QAES provides tool-tips for some features, but the system’s help tool is not comprehensive. Customer support is available 24/7 by telephone, email, and web-based interactive sessions.

QAES is intuitive and easy to use. The system was reliable during the evaluation and it can enhance the user’s ability to do his/her job. The primary capability of QAES is the QA portion of the system as it monitors a dispatch center’s performance and encourages improvement.

3.1.1.7 NIMS STEP Worksheet

Table 6: NIMS STEP Worksheet below provides specific details of the evaluation results.

Table 6: NIMS STEP Worksheet

Product Name: QAES	
EMERGENCY SUPPORT	
Criteria and Question	Result
EMERGENCY SUPPORT FUNCTIONS	
1. This product supports the following Emergency Support Functions (ESF):	Agree/Disagree/Not Applicable
a. <i>Transportation</i>	Agree
b. <i>Communications</i>	Agree
c. <i>Public Works and Engineering</i>	Agree
d. <i>Firefighting</i>	Agree
e. <i>Emergency Management</i>	Agree
f. <i>Mass Care, Emergency Assistance, Housing, and Human Services</i>	Agree
g. <i>Logistics Management and Resource Support</i>	Agree
h. <i>Public Health and Medical Services</i>	Agree

<i>i. Search and Rescue</i>	Agree
<i>j. Oil and Hazardous Materials Response</i>	Agree
<i>k. Agriculture and Natural Resources</i>	Agree
<i>l. Energy</i>	Agree
<i>m. Public Safety and Security</i>	Agree
<i>n. Long-Term Community Recovery</i>	Agree
<i>o. External Affairs</i>	Agree
2. There are no obstacles to ESF(s) implementing this product (i.e., from acquisition and installation to user proficiency).	Disagree
3. Provide comments on ESF(s) implementing this product.	<ul style="list-style-type: none"> ▪ Regarding number 1: The system lists a definition for each of the 15 ESFs and it provides users the ability to associate a resource with an ESF. ▪ Regarding number 2: A user can search the system to find resources associated with an ESF and view them via a list, but the system does not track resources throughout the course of an incident/event.
INCIDENT COMMAND	
4. This product supports the following Incident Command functions:	Agree/Disagree/Not Applicable
<i>a. Incident Command</i>	Not Applicable
<i>b. Operations Function</i>	Not Applicable
<i>c. Planning Function</i>	Not Applicable
<i>d. Logistics Function</i>	Agree
<i>e. Finance/Administration Function</i>	Not Applicable
<i>f. Intelligence/Investigations Function</i>	Not Applicable
<i>g. Public Information Function</i>	Not Applicable
<i>h. Safety Function</i>	Not Applicable
<i>i. Liaison Function</i>	Not Applicable
5. There are no obstacles to Incident Command functions implementing this product.	Disagree

<p>6. Provide comments on Incident Command functions implementing this product.</p>	<ul style="list-style-type: none"> ▪ Regarding 4.d: The system provides a list of equipment and personnel. ▪ Regarding number 5: Users can access a list of resources available from the system with the ability to search for associated data (e.g., owner, typed definition, etc.), but the system does not track resources throughout the course of an incident/event.
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<p>7. This product must be consistent with the applicable ESFs and core functions of ICS. (Minimum Product Requirement 1)</p>	<p>Agree</p>
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HAZARDS

Criteria and Question	Result
<p>8. This product may be used in response to the following hazard types:</p>	<p style="text-align: center;">Agree/Disagree/Not Applicable</p>
<p style="padding-left: 20px;">a. <i>Natural Hazards</i></p>	<p>Agree</p>
<p style="padding-left: 20px;">b. <i>Manmade Hazards</i></p>	<p>Agree</p>
<p>9. Provide comments on Hazards applicability.</p>	<p>The system allows users to acquire a list of resources from the system that could be used during any type of hazard.</p>
<p>10. This product must be applicable to at least one hazard. (Minimum Product Requirement 2)</p>	<p>Agree</p>

COMMUNICATION AND INFORMATION MANAGEMENT

Criteria and Question	Result
-----------------------	--------

COMMON OPERATING PICTURE

	<p style="text-align: center;">Agree/Disagree/Not Applicable</p>
<p>11. This product provides adequate access to critical information:</p>	<p>Agree</p>
<p>12. This product allows on-scene and off-scene personnel to have the same information about the incident, including the availability and location of resources and the status of assistance requests. (e.g., situational awareness).</p>	<p>Not Applicable</p>
<p>13. This product offers an incident overview by collating and gathering information that enables the Incident Commander (IC), Unified Command (UC), and supporting agencies and organizations to make effective, consistent, and timely decisions.</p>	<p>Not Applicable</p>

14. This product has the capability to be updated continually in order to maintain situational awareness.	Not Applicable
15. This product uses or interacts with geospatial information to portray the incident.	Not Applicable
16. Provide comments on the common operating picture.	<ul style="list-style-type: none"> ▪ Regarding number 11: QAES provides users the ability to enter resources into a repository. Users can view a listing of static resource data. ▪ Regarding numbers 12, 13 and 14: QAES can pull CAD data regarding an incident for the purposes of QA and it provides users with a listing of resource data, but the system was not designed to provide users the ability to manage an incident (e.g., continual logging of incident activities). Therefore, users are unable to acquire a common operating picture or maintain situational awareness during an incident/event. ▪ Regarding numbers 12 and 14: Even though QAES does not provide situational awareness, the system has the capability to be updated and data can be shared across multiple installations both on-scene and off-scene. After a user enters resources into the system from their local installation, this data is automatically shared to the server and users on a different installation can view the data. In terms of the QA portion of the system, a user can manually import CAD data or data can be imported automatically via a customized interface. From the server, imported CAD data is sent to local installations. Resource and QA data is shared providing that a communication path from single installations to the server is available, and data sharing agreements are established and setup between installations.

	<ul style="list-style-type: none"> Regarding number 15: The system reflects the location of municipalities, services (departments/agencies, businesses, etc.), and personnel addresses on Google maps in both mapping and satellite mode. The vendor identified that QAES can work with a customer's Geographic Information System (GIS) as well. However, the system is not designed to portray an incident.
INTEROPERABILITY	
	Agree/Disagree/Not Applicable
17. Incident reporting and documentation procedures are standardized to ensure that situational awareness is maintained and provides emergency management/response personnel with easy access to critical information.	Not Applicable
18. This product allows NIMS ICS forms to be completed.	Not Applicable
19. If the product uses ICS forms, they must remain consistent with the ICS form numbers and purpose of the specific type of form as identified by NIMS. (Minimum Product Requirement 3)	Not Applicable
20. Provide comments on ICS forms.	The system is not designed to utilize ICS forms, only to list resources.
21. This product provides a method for data sharing or is interoperable with other incident management systems via voice, data, or video, etc. Identify the applicable level(s) of Data Elements Interoperability on the SAFECOM Interoperability Continuum:	Agree/Disagree/Not Applicable
a. <i>Swap Files</i>	Agree
b. <i>Common Applications</i>	Agree
c. <i>Custom-Interfaced Applications</i>	Agree
d. <i>One-Way Standards-Based Sharing</i>	Agree
e. <i>Two-Way Standards-Based Sharing</i>	Not Applicable
22. Provide comments on data sharing.	The system is designed to pull data from a diverse group of CAD systems through a customized interface. This customized product can be used with multiple operating platforms.

23. This product must be interoperable with other systems at the level of c, d, or e above. (Minimum Product Requirement 4)	Agree
SCALABILITY	
	Agree/Disagree/Not Applicable
24. This product may be used for small scale incidents and events.	Agree
25. This product may be used for large scale incidents and events.	Agree
26. This product must be applicable to small and large scale incidents. (Minimum Product Requirement 5)	Agree
27. This product may be used across the full spectrum of multi-agency incidents and events.	Agree
28. This product may be used across the full spectrum of multi-discipline incidents and events.	Agree
29. This product must be applicable to a single jurisdiction and multiple agencies/disciplines during incidents and planned events. (Minimum Product Requirement 6)	Agree
30. This product allows the responders to increase the number of users on a system.	Agree
31. Provide comments on scalability.	No comments
32. The product may be used at the following:	Agree/Disagree/Not Applicable
a. <i>On scene as a portable or static device.</i>	Agree
b. <i>On scene at the Incident Command Post (ICP).</i>	Agree
c. <i>At a Staging Area, Base, or Camp.</i>	Agree
d. <i>At a State or Local Department Operations Center (DOC) (any discipline).</i>	Agree
e. <i>At a Local EOC.</i>	Agree
f. <i>At a State EOC.</i>	Agree
g. <i>At a Federal Joint Field Office (JFO) or EOC.</i>	Agree
33. Provide comments on Command and Coordination levels.	<ul style="list-style-type: none"> ▪ Regarding number 32.a: The system is not a device; however, this software system may be used in a mobile command configuration if in communication with the server(s). ▪ Regarding number 32.b-g: The system may be used in a mobile command configuration if in communication with the server(s).
34. This product may be used by the following levels of government:	Agree/Disagree/Not Applicable
a. <i>Municipality</i>	Agree

<i>b. County</i>	Agree
<i>c. Regional</i>	Agree
<i>d. Tribal</i>	Agree
<i>e. State</i>	Agree
<i>f. Federal</i>	Agree
<i>g. Special District</i>	Agree
<i>h. Agency</i>	Agree
<i>i. Other</i>	Agree
35. This product may be used to support communications among multiple levels of government(s).	Agree
36. Provide comments on levels of government.	Terminology in the system must be consistent across all users for simultaneous use by multiple levels of government.
37. This product is flexible enough to be used by the public and private sectors.	Agree
PLAIN LANGUAGE	
	Agree/Disagree/Not Applicable
38. This product must adhere to the principle of plain language (clear text). (Minimum Product Requirement 7)	Not Applicable
39. Provide comments on the use of plain language.	The system allows entry of any information into the database by the user. These entries may include nomenclature other than NIMS. It is the responsibility of an end user to use plain language.
INFORMATION SECURITY	
	Agree/Disagree/Not Applicable
40. The product provides a means to properly authenticate and certify users for security purposes.	Agree
41. This product must provide adequate controls to restrict access to sensitive information. (Minimum Product Requirement 8)	Agree
42. This product does not have potential security or vulnerability concerns.	Agree
43. Describe any safeguards integrated to minimize security and/or vulnerability concerns.	The system is installed on a server utilizing secure data exchange and encrypted capabilities.
44. This product has redundancy capabilities as a part of its functionality.	Agree
45. Provide any additional comments on security and/or vulnerability.	The system is installed at the customer's site with a mirrored server.

Minimum Product Requirement Summary: Rating for the Communication and Information Management category.

Agree: 4 of 6
Disagree: 0 of 6
Not Applicable: 2 of 6

RESOURCE MANAGEMENT

Criteria and Question	Result
	Agree/Disagree/Not Applicable
46. This product addresses the need to manage resources.	Agree
47. This product provides for requirements identification.	Not Applicable
48. This product provides for mobilizing resources.	Agree
49. This product must address the use of Mutual Aid Agreements and resources. (Minimum Product Requirement 9)	Agree
50. This product must provide an integrated means for resource typing definitions. (Minimum Product Requirement 10)	Agree
51. This product must provide a means for inventorying FEMA typed resources. (Minimum Product Requirement 11)	Agree
52. This product must provide a means for inventorying non-FEMA typed resources. (Minimum Product Requirement 12)	Agree
53. This product must provide a record of credentialed and other personnel. (Minimum Product Requirement 13)	Agree
54. This product must provide a means for performing personnel and equipment accountability. (Minimum Product Requirement 14)	Agree
55. This product must provide a means for resource requesting/ordering. (Minimum Product Requirement 15)	Agree
56. This product must provide a means for resource tracking/reporting. (Minimum Product Requirement 16)	Not Applicable
57. This product must provide a means for resource recovery and demobilization. (Minimum Product Requirement 17)	Not Applicable
58. This product must assist in the reimbursement process. (Minimum Product Requirement 18)	Not Applicable

<p>59. Provide comments on resource management.</p>	<ul style="list-style-type: none"> ▪ Regarding number 46: QAES partially addresses the need to manage resources. Users can enter and define resources into the system, and they can access a list of resources. However, the system is not an exhaustive resource management system. ▪ Regarding number 50: The system provides an integrated means for resource typing definitions, but it does not require the use of them. ▪ Regarding number 54: The system provides for QA for personnel, but not equipment. ▪ Regarding number 55: The system allows resource requesting, but it does not allow for an order to be processed. ▪ Regarding numbers 56 and 57: QAES has the ability to define attributes to a resource such as the owner and location (i.e., the typical location a resource resides). The system does not identify the location of a resource throughout the course of an incident. Therefore, the system does not track or provide a means to demobilize resources. ▪ Regarding number 58: The system allows a user to put in the contractual cost that may be used for reimbursement purposes, but it does not allow for the computation of final costs.
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Minimum Product Requirement Summary: Ratings for the Resource Management category.

Agree: 7 of 10
Disagree: 0 of 10
Not Applicable: 3 of 10

COMMAND AND MANAGEMENT

Criteria and Question	Result
	Agree/Disagree/Not Applicable
60. This product assists users in the management of an incident.	Agree

61. This product supports (or is consistent with) the following management characteristics of ICS:	Agree/Disagree/Not Applicable
a. <i>Common Terminology</i>	Agree
b. <i>Modular Organization</i>	Agree
c. <i>Management by Objectives</i>	Agree
d. <i>Incident Action Planning</i>	Agree
e. <i>Manageable Span of Control</i>	Agree
f. <i>Incident Facilities and Locations</i>	Agree
g. <i>Comprehensive Resource Management</i>	Agree
h. <i>Integrated Communications</i>	Agree
i. <i>Establishment and Transfer of Command</i>	Agree
j. <i>Chain of Command and Unity of Command</i>	Agree
k. <i>Unified Command</i>	Agree
l. <i>Accountability</i>	Not Applicable
m. <i>Dispatch/Deployment</i>	Agree
n. <i>Information and Intelligence Management</i>	Agree
62. Overall, this product is consistent with the applicable 14 ICS management characteristics. (Minimum Product Requirement 19)	Agree
63. If the product references ICS, the organization charts and/or terminology must be consistent with it. (Minimum Product Requirement 20)	Not Applicable
64. Comment on the product's integration of management characteristics of ICS.	<ul style="list-style-type: none"> ▪ Regarding number 60: The system provides a list of resources and their probable availability. ▪ Regarding number 61.a: The system allows entry of any information into the database by the user. These entries may include nomenclature other than NIMS. ▪ Regarding number 61.l: The system was not designed with an integrated ability to track or demobilize resources.
Minimum Product Requirement Summary: Ratings for the Command and Management category.	Agree: 1 of 2 Disagree: 0 of 2 Not Applicable: 1 of 2

IMPLEMENTATION AND PRODUCT OVERVIEW

Criteria and Question	Result
IMPLEMENTATION	
	Agree/Disagree/Not Applicable
65. This product can be easily implemented.	Agree
66. Comment on implementation.	The system is logically organized and easy to follow once training is received.
67. System documentation (including training materials and user's guides) is comprehensive.	Agree
68. The vendor provides the following types of practitioner training:	Agree/Disagree/Not Applicable
a. <i>Online</i>	Agree
b. <i>Train the trainer</i>	Agree
c. <i>On-site presentation</i>	Agree
d. <i>Hands-on training</i>	Agree
69. Comment on practitioner training.	There is a requirement for in-depth training to allow for effective use and proper setup of the system. Setup includes an accumulation of all available personnel and resource data using proper nomenclature and knowledge of NIMS and the TCL. Implementation of the QA portion of the software requires thoughtful parameter setup for dispatch center performance and operation.
70. Training provided allows recipients to proficiently use this product.	Agree
71. There are no obstacles that would prohibit a department or agency from providing training to implement this product?	Agree
72. Describe any obstacles to training.	Users will require in-depth and extensive training for full operational capability.
73. This product has an integrated help tool.	Agree
74. Comment on help tool integration (is it adequate/intuitive?).	The help tool is not comprehensive.
75. Is customer support available? If so, what is its availability and what medium is used (e.g., e-mail, phone, live-chat)?	Yes, 24/7 by all methods of communication, on or off site. Provision is made to access software remotely to repair or replace.

76. How long would it take a department or agency to implement this product?	Less than one month.
77. The size or make up of a department or agency will not hinder the implementation of this product.	Agree
78. Comment on any identified impacts.	No comment
79. Federal, state, or local laws or regulations will not hinder the implementation of this product.	Agree
80. Comment on any laws that may hinder this implementation.	No comment
81. The impact of implementing this product will not vary for urban vs. rural jurisdictions.	Agree
82. Identify any issues with urban vs. rural implementation.	No comment
83. The impact of implementing this product will not vary for paid, combination, or volunteer departments.	Disagree
84. Identify any issues with paid, combination, or volunteer departments.	Implementing any product will vary for paid, combination, and volunteer departments as there is a higher rate of turn over for volunteer agencies than for paid or combination agencies.
85. Identify associated expenditures that may be incurred in addition to the initial procurement of this product.	Training and implementation of data entry of resources.
PRODUCT OVERVIEW	
86. Overall, this product is consistent with the concepts and principles of NIMS. To receive an agree in this category, this product must be consistent with all of the applicable supporting minimum product requirements.	Agree
87. Identify any issues with NIMS consistency.	QAES applies to 14 of 20 Minimum Product Requirements; of which all are consistent with NIMS concepts and principles.
88. This product will enhance the user's ability to do his/her job.	Agree
89. Comment on how this product will impact the job performance for the user.	QA monitors performance and encourages improvement. The system allows for fast identification and documentation of problem performance areas in a dispatch center.
90. This product was easy to use and intuitive.	Agree
91. Comment on the products ease of use.	With training and experience, users will have little difficulty using this system and find it a useful tool.
92. This product was reliable during the evaluation.	Agree

93. Describe any issues with reliability.	No comment
94. Provide any other observations.	No comment

3.2 TCL

3.2.1 Objective 2: Identify Applicable TCL Core Capabilities⁵

Assessors identified the following core capabilities as being applicable to QAES:

Common Capabilities:

- Intelligence and Information Sharing and Dissemination

Respond Mission Capabilities: QAES partially supports the following Respond Mission Capabilities as the system can provide users a list of assets if data is entered in the system:

- Emergency Operations Center Management
- Critical Resource Logistics and Distribution
- Search and Rescue (Land-Based)
- Medical Supplies Management and Distribution
- Fatality Management

⁵ Objective 2 was added in April 2010; it is currently not covered under the requirements outlined in ISO/IEC 17020:1998.

3.3 Participant Observations

Participants noted the following observations during the evaluation:

Ease of Use:

- At least one character must be entered in the User I.D. field on the login screen prior to exiting the system. If a person clicks on cancel without typing anything in the User I.D. field, the system asks them if they are sure they want to quit. Upon clicking yes, the system identifies that they must enter a User ID. The same thing happens when trying to close the program with the use of the X in the upper right-hand corner of the system.
- The system does not provide users a method to exit out of the window depicted in **Figure 4: View QA Selected for Review Record**. There is not a close button or X on this window to exit, and there is not an option to close the window by clicking on the window's tab at the bottom of the system's screen.

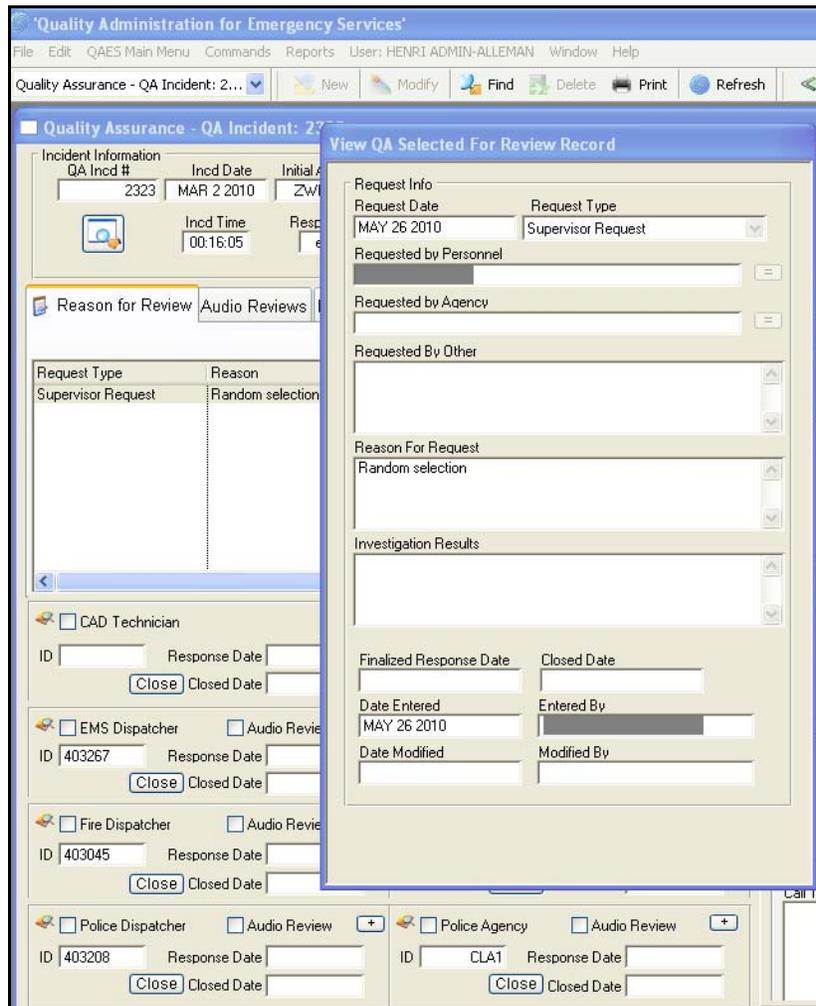


Figure 4: View QA Selected for Review Record

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- In one instance, an assessor was unable to navigate out of a particular screen/module. The vendor was available to troubleshoot the issue. However, they were unable to resolve it and the assessor had to log out and back in to resume use of the system.
 - QAES provides various reports to depict data in the system. However, the Resource Management Summary report is generated in segments by page rather than compiled in one file. After selecting the X in the upper right-hand corner of one page, the next page opens. The system does not provide a way to close all individual pages for this report at one time. Closing the entire report may take a long time depending on the number of individual pages generated (e.g. 200 pages). Additionally, a user cannot access other parts of the system until all pages are closed.
 - After CAD data is imported into QAES, the system automatically reviews data and identifies dispatched incidents that do not conform to specific criteria setup in the system. For example, if a call coming into a communications center is not picked up within a specific amount of time, QAES identifies this call as needing a QA review. QA reviews must be answered one at a time; there is not a way to resolve multiple reviews at the same time. If a large incident occurred and numerous calls were placed during a given timeframe, management would know why calls weren't answered in a specific amount of time. For a QA reviewer, it would be less time consuming to be able to select multiple incidents of this type and resolve them all at once.

4.0 APPENDIX A: NIMS CRITERIA

The following information in this appendix was provided to assessors prior to and during the evaluation as identified in the NIMS STEP Guide, December 2009.

4.1 Purpose

This appendix was developed to serve as a procedural aid to assessors reviewing a product. All assessors have a full understanding of the methodology that will be used in this process and the proper application of the selected criteria. This guide provides an overview of the methodology to be used in the process as well as step-by-step instructions for conducting the inspection. The appendix specifically identifies and further describes the criteria assessors are to use and provides them with instructions for completing the applicable NIMS STEP Worksheet. Assessors are required to provide narrative explanations and general observations for select questionnaire responses.

The scope of the evaluation will be determined during the product selection and planning phase. Products are evaluated for NIMS concepts and principles and relevant NIMS recommended technical standards. If a product does not implement any of the technical standards, evaluators will review the product solely for NIMS concepts and principles utilizing the NIMS STEP Worksheet. Products that are primarily focused on implementing technical standards (such as alert and warning systems) will be evaluated utilizing the NIMS STEP Worksheet – Technically Focused Evaluations. This worksheet provides assessors an opportunity to comment on relevant NIMS concepts and principles but focuses on implementation considerations and provides a product overview.

4.2 Instructions

The results of the process will be a description of the relevance of the product to NIMS. This is accomplished by assessing how applicable each product is to criteria from NIMS, and addressing subjective questions related to each criteria and the product as a whole.

The process includes three steps:

- Step 1: Review the NIMS criteria.
- Step 2: Apply each NIMS criterion to, and answer the questions for, the product.
- Step 3: Address the general questions to the product as a whole.

4.3 Step 1 – Review the NIMS Criteria

NIMS criteria were developed by a cross-section of SMEs and select members of the emergency response community. Assessors inspect the product’s incorporation of NIMS concepts and principles. The primary sub-elements of the NIMS portion of the evaluation are as follows:

- Emergency Support
- Hazards
- Communication and Information Management
- Resource Management
- Command and Management

Assessors also review general questions on the product including but not limited to implementation considerations.

Assessors conduct qualitative analysis and provide feedback for all of the criteria listed above. Input from the assessors is captured using a Dichotomous rating scale – a quantitative method for measuring the agreement or disagreement for a set of NIMS-related statements. These methods are designed to help describe products and to determine the presence or absence of desirable attributes. **Table A - 1: NIMS Criteria Summary Table** is reflected below; assessors complete this table for inclusion in applicable evaluation reports. The numbers provided will summarize ratings for minimum product requirements within each NIMS criterion.

Table A - 1: NIMS Criteria Summary Table

NIMS Criteria (Number of Minimum Product Requirements)	Rating Summary		
	# Agree	# Disagree	# Not Applicable
Emergency Support (1)			
Hazards (1)			
Communication and Information Management (6)			
Resource Management (10)			
Command and Management (2)			

Assessors have identified key elements within each of the NIMS criteria that are cited as Minimum Product Requirements (**Table A - 2: Minimum Product Requirements**). These requirements were derived from the NIMS document and their ratings in the NIMS STEP Worksheet impact the overall rating of the product’s adherence to NIMS concepts and principles.

Table A - 2: Minimum Product Requirements

Reference Number	Minimum Product Requirements Text	NIMS Criteria
1	The product must be consistent with the applicable ESFs and core functions of the ICS.	Emergency Support
2	The product must be applicable to at least one hazard.	Hazards
3	If the product uses ICS forms, they must remain consistent with the ICS form numbers and purpose of the specific type of form as identified by NIMS.	Communication and Information Management
4	The product must be interoperable with other systems at the level of custom-interfaced applications, one-way standards-based sharing, or two-way standards-based sharing.	Communication and Information Management
5	The product must be applicable to small and large scale incidents.	Communication and Information Management
6	The product must be applicable to a single jurisdiction and multiple agencies/disciplines during incidents and planned events.	Communication and Information Management
7	The product must adhere to the principle of plain language (clear text).	Communication and Information Management
8	The product must provide adequate controls to restrict access to sensitive information.	Communication and Information Management
9	The product addresses the use of Mutual Aid Agreements and resources.	Resource Management
10	The product must provide an integrated means for resource typing definitions.	Resource Management
11	The product must provide a means for inventorying FEMA typed resources.	Resource Management
12	The product must provide a means for inventorying non-FEMA typed resources.	Resource Management
13	The product must provide a record of credentialed and other personnel.	Resource Management
14	The product must provide a means for performing personnel and equipment accountability.	Resource Management
15	The product must provide a means for resource requesting/ordering.	Resource Management
16	The product must provide a means for resource tracking/reporting.	Resource Management

Reference Number	Minimum Product Requirements Text	NIMS Criteria
17	The product must provide a means for resource recovery and demobilization.	Resource Management
18	The product must assist in the reimbursement process.	Resource Management
19	Overall, the product is consistent with the applicable 14 ICS management characteristics.	Command and Management
20	If the product references ICS, the organization charts and/or terminology must be consistent with it.	Command and Management

Additional descriptions associated with each NIMS criterion are outlined below.

4.4 Emergency Support

The selected product should be applicable to ESF and/or ICS. This is not to infer that a product cannot apply to a single category. Instead, it is intended to underscore a preference for product applicability across the greatest number of categories.

ESFs are defined in the National Response Framework (NRF) as:

- Transportation
- Communications
- Public Works and Engineering
- Firefighting
- Emergency Management
- Mass Care, Emergency Assistance, Housing, and Human Services
- Logistics Management and Resource Support
- Public Health and Medical Services
- Search and Rescue
- Oil and Hazardous Materials Response
- Agriculture and Natural Resources
- Energy
- Public Safety and Security
- Long-Term Community Recovery
- External Affairs

Incident Command Functions are defined in the NIMS document as follows:

- Incident Command
- Operations Function
- Planning Function
- Logistics Function
- Finance/Administration Function
- Intelligence/Investigations Function
- Public Information Function
- Safety Function
- Liaison Function

4.5 Hazards

Each product should mirror the all-hazards philosophy of NIMS to the greatest extent possible. Assessors review the product's applicability to the general categories of natural and manmade hazards, as defined by NIMS. The specific types of hazards identified in this section are from National Fire Protection Association (NFPA) 1600: Standard on Disaster/Emergency Management and Business Continuity Programs. The standard should be referenced for specific examples and detailed definitions. Following is a summary list of hazards for reference in the inspection of each product:

Natural hazards:

- Geological (earthquake, tsunami, volcano, landslide, etc.)
- Meteorological (flood, tidal surge, drought, forest fire, snow, windstorm, extreme temperature, etc.)
- Biological (emerging diseases [pandemic disease, West Nile virus, smallpox], Animal or insect infestation, etc.)

Manmade hazards:

Human-caused incidents

- Accidental (hazardous material spill or release, explosion/fire, transportation accident, building/structure collapse, air/water pollution, contamination, etc.)
- Intentional (terrorism [explosive, chemical, biological, radiological, nuclear, cyber], sabotage, civil disturbance, etc.)

Technological-caused incidents

- Technological-caused incidents (central computer, mainframe, software, or application, ancillary support equipment, telecommunications, energy/power/utility, etc.)

4.6 Communication and Information Management

Emergency management and incident response activities rely upon communications and information systems that support the formation of a common operating picture to all command and coordination sites. NIMS describes the requirements necessary for a standardized framework for communications and emphasizes the need for a common operating picture. NIMS is based upon the concepts of interoperability⁶, reliability, scalability, portability, and the resiliency and redundancy of communication and information systems. When inspecting this criterion, the following subcategories should be considered: common operating picture, interoperability, scalability, plain language, and information security. Assessors will respond to questions in each area.

In terms of interoperability, assessors will identify the applicable level(s) of Technology/Data Elements as defined in the Interoperability Continuum developed by the DHS SAFECOM program. The elements on the continuum are: Swap Files, Common Applications, Custom-Interfaced Applications, One-Way Standards-Based Sharing, and Two-Way Standards-Based Sharing. Refer to the Interoperability Continuum for detailed definitions of each element. For the purposes of the evaluation, data interoperability components must be integrated into the system's design and the vendor must demonstrate capabilities to share information with a disparate product, as applicable.

⁶ Interoperability is defined as the ability of systems, personnel, and equipment to provide and receive functionality, data, information and/or services to and from other systems, personnel, and equipment, between both public and private agencies, departments, and other organizations, in a manner enabling them to operate effectively together. Allows emergency management/response personnel and their affiliated organizations to communicate within and across agencies and jurisdictions via voice, data, or video-on-demand, in real time, when needed, and when authorized (NIMS, December 2008).

As related to scalability, NIMS is scalable to any situation from small, local events to large-scale incidents, whether pre-planned, forewarned, or no-notice. This scalability is essential for NIMS to be applicable across the full spectrum of multiple agency, multiple jurisdiction, Statewide, and National events.

4.7 Resource Management

When inspecting resource management applications, three subcategories should be considered: preparedness, incident response, and post-incident recovery and reimbursement.

The preparedness activities (resource typing, credentialing, and inventory) are conducted on a continual basis to help ensure that resources are ready to be mobilized when called to an incident. Resource management during an event/incident includes (requirements identification, ordering and acquiring, mobilizing, and tracking and reporting). Post-event activities include recovery/demobilization and reimbursement.

4.8 Command and Management

The Command and Management component within NIMS is designed to enable effective and efficient incident management and coordination by providing flexible, standardized incident management structure. The structure is based on three key organizational constructs: ICS, Multiagency Coordination Systems, and Public Information. ICS is based on 14 proven management characteristics, each of which contributes to the strength and efficiency of the overall system (Reference the NIMS Document December 2008, Component IV – Command and Management, for additional information). Assessors will rate the product's applicability to each of the 14 management characteristics of ICS.

4.9 Other Criteria – Implementation and Product Overview

It is important to understand the implementation factors including the time and training impacts on governmental entities. This is especially important for small and rural agencies, which may have limited resources. Since specific product costs are typically negotiated at the time of sale, vendors are not asked to provide an estimate of product costs during the evaluation. However, assessors will identify associated expenditures that may be incurred in addition to the procurement of this product.

4.10 Step 2 – Apply NIMS Criteria and Complete NIMS STEP Worksheet

The second step in this review is to gain familiarization with the product and to apply the NIMS criteria. The test analyst will arrange training on the product or provide assessors with information on self-paced training, if applicable. The assessors will also have time allocated for use of the system to become familiar with the product's capabilities.

The appropriate worksheet related to product capabilities will be identified during the product selection and planning phase. Assessors are to review the product based on their application of the NIMS criteria. These reviews should be made according to a subjective inspection based upon the individual assessor's knowledge of NIMS and experience.

4.11 Step 3 – Address General Questions

The third and final step is to address general questions for the product. The questions focus on addressing potential issues that may arise during implementation. For each question, the assessor must provide a detailed answer focusing on the ESF that they represent.

4.12 NIMS STEP Worksheet

The vendor's completed product self-assessment is provided to assessors as a reference in order to facilitate an understanding of the product's designed capabilities. Assessors should review the product and provide ratings for all questions during the evaluation, even those identified as not applicable by the vendor during the self-assessment. Assessors are not limited by the vendor's responses.

Assessors will use the following guidance to complete the NIMS STEP Worksheet:

- Agree: The product is consistent with the statement presented.
- Disagree: The product is designed or intended to address the statement but the product is not consistent with the statement presented.
- Not Applicable: The product is not designed or intended to address the statement presented.

5.0 APPENDIX B: TCL – CORE CAPABILITIES

The 37 core capabilities as defined in the TCL are as follows:

Common Capabilities:

- Planning
- Communications
- Community Preparedness and Participation
- Risk Management
- Intelligence and Information Sharing and Dissemination

Prevent Mission Capabilities:

- Information Gathering and Recognition of Indicators and Warning
- Intelligence Analysis and Production
- Counter-Terror Investigation and Law Enforcement
- Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) Detection

Protect Mission Capabilities:

- Critical Infrastructure Protection
- Food and Agriculture Safety and Defense
- Epidemiological Surveillance and Investigation
- Laboratory Testing

Respond Mission Capabilities:

- On-Site Incident Management
- Emergency Operations Center Management
- Critical Resource Logistics and Distribution
- Volunteer Management and Donations
- Responder Safety and Health
- Emergency Public Safety and Security
- Animal Disease Emergency Support
- Environmental Health
- Explosive Device Response Operations

-
- Fire Incident Response Support
 - Weapons of Mass Destruction (WMD) and Hazardous Materials Response and Decontamination
 - Citizen Evacuation and Shelter-in-Place
 - Isolation and Quarantine
 - Search and Rescue (Land-Based)
 - Emergency Public Information and Warning
 - Emergency Triage and Pre-Hospital Treatment
 - Medical Surge
 - Medical Supplies Management and Distribution
 - Mass Prophylaxis
 - Mass Care (Sheltering, Feeding and Related Services)
 - Fatality Management

Recover Mission Capabilities:

- Structural Damage Assessment
- Restoration of Lifelines
- Economic and Community Recovery

6.0 APPENDIX C: REFERENCES

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3. National Incident Management System, December 2008, <http://www.fema.gov/emergency/nims/>.
4. National Response Framework, January 2008, <http://www.fema.gov/emergency/nrf/>.
5. NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs, 2007, <http://www.nfpa.org/>.
6. NIMS Recommended Standard List, January 2009 http://www.fema.gov/pdf/emergency/nims/FY09_Recommend_Standards_List_1_21708.pdf.
7. NIMS STEP: QAES Evaluation Plan, May 2010.
8. NIMS STEP Guide, December 2009, https://www.nimsstep.org/files/NIMS_STEP-Guide.pdf.
9. Target Capabilities List (TCL), September 2007, <http://www.fema.gov/pdf/government/training/tcl.pdf>.
10. Quality Administration for Emergency Services: A Resource Management / Quality Assurance Application and Database; Including Compliance with the National Incident Management System – Site Administrator Setup Overview, April 2010.
11. Quality Enhanced Management Systems website, accessed May 2010, <http://www.qems.com/>.

7.0 APPENDIX D: LIST OF ACRONYMS

24/7	24 hours a day, seven days a week
A2LA	American Association for Laboratory Accreditation
CAD	Computer-Aided Dispatch
CBRNE	Chemical, Biological, Radiological, Nuclear, and Explosive
DCS	Data Collection System
DOC	Department Operations Center
DHS	Department of Homeland Security
EOC	Emergency Operations Center
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IEC	International Electrotechnical Commission
IMSI	Incident Management Systems Integration
IMTEL	Incident Management Test and Evaluation Laboratory
ISO	International Organization for Standardization
IT	Information Technology
JFO	Joint Field Office
NFPA	National Fire Protection Association
NIC	National Integration Center
NIMS	National Incident Management System
NIMS STEP	National Incident Management System Supporting Technology Evaluation Program

NPD	National Preparedness Directorate
NRF	National Response Framework
QA	Quality Assurance
QAES	Quality Administration Emergency Services
QC	Quality Control
SAIC	Science Applications International Corporation
SEOC	Simulated Emergency Operations Center
SME	Subject Matter Expert
T&E	Test and Evaluation
TCL	Target Capabilities List
UC	Unified Command
WMD	Weapons of Mass Destruction

8.0 APPENDIX E: VENDOR RESPONSE



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September 21, 2010

S.A.I.C.
NIMS Support Center
75 Valley Oak Dr.
Somerset, KY 42503

RE: Evaluation of Quality Administration for Emergency Services

We would like to extend our appreciation to everyone involved with this evaluation process. It was a well-organized and productive evaluation of QAES. The intense and objective analysis in accordance with the pre-established criteria utilized during the evaluation has provided us with some significantly positive observations that will ultimately lead to future enhancements to our product.

Regarding a few items contained in the report:

Page 31 – The two (2) items identified have already been resolved and issued as updates to all clients with version 4.3.1.2.2.

Page 32 -

Item 1: All screens/modules have been reviewed post evaluation to identify any additional like issues and have been resolved. (Issued as an update to all clients with version 4.3.1.2.2.)

Item 2: There is now an option to close the report generation when viewing these reports on the screen. (Issued as an update to all clients with version 4.3.1.2.2.)

Item 3: Observation noted and the customer base user group is being solicited for comments regarding their need for "batch reviewing" as that has not been a prior request from the end users.

QAES provides the Emergency Services Industry with a complete data management system that is the ultimate tool to manage the voluminous data resources the dispatch center requires to be an effective and quality operation.

Again, we appreciate the opportunity to have had QAES evaluated through the NIMS Step Support Center and are available to further detail this product for review via "webinar presentations". These sessions can be scheduled to meet your scheduling need with the initial presentation being approximately 90 minutes in length.

Respectfully,

A handwritten signature in black ink, appearing to read 'Monty Jenkins', is written over a horizontal line.

Monty Jenkins
President