

# **NENA**

## **Emergency Call Processing**

## **Protocol Standard**



NENA Emergency Call Processing Protocol Standard

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## 1 Executive Overview

This document has been developed to serve as a recommended standard for the adoption of standardized call-processing protocols for use by emergency communications processing centers.

To provide uniformity and consistency in the handling of 9-1-1, other emergency calls, the following emergency call processing standards are recommended:

- Standardized call processing Protocols for all emergency call types
- Standardized Prioritization of calls
- Standardized pre-planned Responses based on the level of prioritization of calls.

The research, development, and implementation of call-processing protocols is endorsed by NENA as the most effective way to ensure the highest standard of care for both the emergency responders as well as the public.

## 2 Introduction

### 2.1 Purpose and Scope

This standard provides emergency communication processing centers with a framework from which agencies can define appropriate emergency communication protocol requirements and recommendations for day-to-day operations and for disaster/major event scenarios.

### 2.2 Reason to Implement

NENA recognizes the value of a standardized, structured approach to call taking in 9-1-1 and emergency communications centers for day-to-day, routine operations. Large-scale incidents, including natural and man-made disasters, will have a substantial impact on 9-1-1 center operations and emergency call handling. In order to manage these events successfully, centers must have both routine call taking protocols and procedures, as well as contingency call taking protocols and procedures for such large-scale events. Further, recognizing that quality assurance and quality improvement processes are a required component of PSAP and emergency communication center operations, NENA supports the use of call taking protocols defined in this standard as a foundational element for measuring emergency communication processing center performance, and developing targeted continuing education and continuous feedback to the Telecommunicator.

### 2.3 Benefits

The benefits of using an agency-adopted standardized approach (e.g., protocols) to call taking in emergency communication processing centers are far reaching. Protocols ensure that each incident received by the PSAP or ECC is:

- Processed according to approved standards of care;
- Prioritized at an appropriate response germane to the urgency of the call for service;
- Suitable for random review and auditing processes;
- Handled in a manner consistent with the objective to preserve and protect the lives of the responders and those at the scene.

- Supports preplanning for scalable incidents that require additional resources

Protocol Benefit	Service Delivery / Response Impact
Processed according to approved standards of care	<ul style="list-style-type: none"><li>• Supports consistent service delivery;</li><li>• Collects event based information in order of importance / relevance based on initial classification of the event;</li><li>• Induces order / structure to an otherwise disordered process;</li><li>• Provides consistent results oriented task direction to call taker;</li><li>• Facilitates agency approved / mandated guidance to call taker staff</li></ul>
Prioritized at an appropriate response germane to the urgency of the call for service	<ul style="list-style-type: none"><li>• Supports effective use of resources assigned to most urgent events prior to less urgent ones;</li><li>• Enables decision-support tool for events of similar urgency or magnitude (e.g., priority level);</li><li>• Scaled differentiation between persons and property events</li></ul>
Suitable for random review and auditing processes	<ul style="list-style-type: none"><li>• Organized interaction assures essential elements of the event are captured first, followed by less important ones;</li><li>• Repeatable model facilitates quality assurance review;</li></ul>
Handled in a manner consistent with the objective to preserve and protect the lives of the responders and those at the scene.	<ul style="list-style-type: none"><li>• Allows supervisors / training staff to focus on specific component elements of the call taker's interaction with the caller;</li><li>• Facilitates consistent delivery of call elements to responders;</li></ul>
Supports preplanning for scalable incidents that require additional resources	<ul style="list-style-type: none"><li>• Recognizes the benefit of a unified response program;</li><li>• Applies in-place local and regional mutual aid expectations / requirements;</li></ul>

## **2.4 Technical Impacts Summary**

The Technical Impacts of using a standardized, structured approach to call taking in 9-1-1 and emergency communication centers may vary. For example, if an emergency communication processing center opts to utilize a hard copy version of a Protocol system, the technical implications are minimal. If, however, an emergency communication processing center opts to implement software versions of a Protocol System, then pre-existing computer and network systems may be affected.

Centers opting to implement software versions of a protocol system must ensure that existing systems are assessed for compatibility, so that any additional interfaces or network modifications are considered prior to software integration

## **2.5 Operational Impacts Summary**

The Operational Impacts of using a standardized, structured approach to call taking in 9-1-1 and emergency communication centers includes an evaluation of existing job position descriptions, existing performance evaluation instruments, the ability of existing systems and processes to capture individual operator-level compliance with established call taking and response protocols, and other equally important operational issues.

Agencies must develop and employ a pre-determined response plan for assigning specific responder types, resources, and response modes (hot or cold), based on the prioritization levels determined by the agency's call-taking protocols. Development of such a plan will involve input, oversight, and approval from all department heads of affected public safety agencies. Agencies will need to evaluate the impact of any change in response plans on costs, response times, status of available resources, and service-level provided.

## **2.6 Document Terminology**

The terms "shall", "must" and "required" are used throughout this document to indicate required parameters and to differentiate from those parameters that are recommendations. Recommendations are identified by the words "desirable" or "preferably".

## **2.7 Reason for Reissue**

NENA reserves the right to modify this document. Whenever it is reissued, the reason(s) will be provided in this paragraph.

## **2.8 Cost Factors**

There are costs associated with the implementation of a protocol system. Typical costs associated to a protocol system implementation may include, but are not restricted to, the following:

- Purchase of a commercial protocol system;
- Development of agency specific protocol system;

- Initial Telecommunicator training on the use of the protocol system;
- Quality Assurance processes and the personnel required to perform this function;
- On-going Telecommunicator training;
- Recertification of Telecommunicators; and
- Integration and interfacing with current computer and network systems (if applicable)
- Consultation with responder agencies;
- Public Education;
- Recurring costs (software licensing, maintenance agreements).

## 2.9 Cost Recovery Considerations

Not Applicable.

## 2.10 Acronyms/Abbreviations

Some of the acronyms/abbreviations used in this document may not have been included in the master glossary. After initial approval of this document, they will be included. Link to the master glossary is located at: <http://www.nena.org>

<b>The following Terms/Acronyms are used in this document:</b>	
<b>EMS</b>	Emergency Medical Service
<b>NENA</b>	National Emergency Number Association
<b>NIMS</b>	National Incident Management System
<b>PSAP</b>	Public Safety Answering Point
<b>Emergency Communications Center (ECC) _</b>	A set of call takers operating under common management which receives emergency calls for service and asynchronous event notifications and processes those calls and events according to a specified operational policy.
<b>National Emergency Management System (NIMS)</b>	Homeland Security Presidential Directive-5, issued on 28 February 2003, directed the Secretary of Homeland Security to develop and administer a National Incident Management System (NIMS). NIMS provides a consistent nationwide template to enable all government, private-sector, and nongovernmental organizations to work together during domestic incidents.

### **3 Operational Description**

All agencies designated as a Public Safety Answering Point (PSAP) or operating as an Emergency Communication Centers (ECC) for any or all of the core public safety services – law enforcement, fire, & emergency medical services (EMS) shall, at a minimum, establish and maintain the following operational standards governing the use of call taking protocols:

#### **3.1 Implementation**

- Approved call taking protocols shall be adopted for all types of public safety service provided (e.g., Law Enforcement, Fire, EMS, Port Authority);
- Each agency shall obtain approval of call taking protocols from the affected external agencies, including but not limited to local Public Safety/Emergency Services Authorities (e.g., Law Enforcement, Fire, EMS, Port Authority);
- Each agency shall adopt or develop approved training, certification and recertification processes for the appropriate call taking protocol(s) with minimum requirements defined for each process;
- Each agency shall establish a condition of employment that Telecommunicators maintain their certifications and properly use the correct type of call taking protocols (e.g., Law Enforcement, Fire, EMS, Port Authority) for every emergency call from the public;
- Call taking protocols shall be approved by the emergency call center's regulatory organizations;
- Call taking protocols shall be supported through evidence-based research and outcome studies, and, where practicable, be externally validated by an outside standard setting organization;
- The recertification process shall include minimum continuing education requirements and performance appraisal with a formal assessment of knowledge and skills after a pre-defined period of time (i.e. every 2 years);
- 9-1-1 and emergency communication centers shall have written policies and procedures governing proper use of, and compliance to, call taking protocols;
- Call taking protocols shall contain questions and a decision support process to facilitate correct call categorization and prioritization;
- Call taking protocols shall provide a specific, reproducible set of agency-approved codes for classifying calls and assigning a response, with tiered response levels and response types associated with each code;
- Call taking protocols shall contain pre-arrival instructions for callers that are designed to provide specific, safe, and appropriate actions for the layperson caller in order to promote the safety, welfare, and successful outcome of the call for help;

- Each agency shall establish minimum protocol compliance standards including each area of the protocol used (e.g. address verification, chief complaint or incident type identification, caller interrogation questions, pre-arrival instructions, call classification and coding, and overall case compliance);
- Each agency shall establish contingency/alternate (pre-arrival) instructions for large-scale incidents and disasters;
- Each agency shall establish written policies and procedures for how and when to invoke contingency/alternate caller instructions and contingency response matrices.
- Each agency, in collaboration with direction from local public safety authorities, and in accordance with National Incident Management System (NIMS) shall develop a contingency response matrix for situations where responder resources are depleted or other receiving facilities such as hospitals, jails and psychiatric facilities are at or above capacity

### **3.2 Ongoing Maintenance / Review**

- Each agency shall establish a continuous quality improvement process for evaluating protocol compliance;
- Each agency shall measure protocol compliance by auditing a random sampling of cases from each Telecommunicator, sufficient in size to represent or closely approximate a representative sample of all cases handled by the center (e.g., Law Enforcement, Fire, EMS, Port Authority) used;
- Each agency shall establish a process of reporting compliance scores for individual call takers and dispatchers, and for the center as a whole;
- Once implemented, the agency shall mandate that Telecommunicators use the adopted call taking protocols (e.g., Law Enforcement, Fire, EMS, Port Authority ) for every emergency call from the public;
- Each agency shall establish a process of regularly reviewing calls for compliance to protocol, and providing feedback on an equally regular basis, to individual Telecommunicators.
- Each agency shall establish a continuing education program based on results of case audits, center performance reports, and any other topic relevant to the ongoing professional development of the telecommunicator staff.

## **4 References**

ASTM F1258-95, Re-approved 2006; Standard Practice for Emergency Medical Dispatch

ASTM F1560-00, Re-Approved 2006; Standard Practice for Emergency Medical Dispatch Management

National Fire Protection Association (NFPA) 1201: Standards for Providing Emergency Services to the Public: with specific emphasis on Section 7.6 Emergency Service Protocols  
<http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1201&cookie%5Ftest=1>

9-1-1 Magazine, April 2007; Emergency Medical Dispatch. The Protocol Evolution. By Brett Patterson, Academics and Standards Associate, National Academies of Emergency Dispatch

9-1-1 Magazine, April 2007; Protocol Systems. Call Handling Protocols, Where Do We Go From Here? By Jerry Turk, Director of Technical Development, PowerPhone.

NAEMSP on EMD:

<http://www.naemsp.org/documents/EmergencyMedicalDispatching.pdf>

NAEMSP Guidelines for Air Medical Dispatch:

<http://www.naemsp.org/pdf/AirMedicalDispatch.pdf>

Physician Medical Direction of Emergency Medical Services Dispatch Programs:

<http://www.acep.org/webportal/PracticeResources/PolicyStatements/ems/PhysicianMedicalDirectionofEMSDispatchPrograms.htm>