Web Emergency Operations Center (WebEOC) Interconnectivity

May 29, 2018

Fiscal Year 2017 Report to Congress

Homeland Security

Federal Emergency Management Agency

Message from the Administrator

May 29, 2018

I am pleased to present the following report, "Web Emergency Operations Center (WebEOC) Interconnectivity," prepared by the Federal Emergency Management Agency (FEMA).

This report was written in response to direction in House Report 114-668 accompanying the Fiscal Year (FY) 2017 Department of Homeland Security (DHS) Appropriations Act (P.L. 115-31). The report details the efforts that FEMA made to increase the capabilities of its WebEOC system and to ensure, to the greatest extent practicable, that states have access to FEMA's WebEOC in order to streamline the processes through which states may request specific federal assistance during an emergency or major disaster declaration pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Kevin Yoder
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable Lucille Roybal-Allard
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable John Boozman
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Jon Tester
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (202) 646-3900 or to the Department's Acting Chief Financial Officer, Stacy Marcott, at (202) 447-5751.

Sincerely,

Brock Long
Administrator
Federal Emergency Management Agency

Executive Summary

House Report 114-668 accompanying the FY 2017 DHS Appropriations Act (P.L. 115-31) requires FEMA to report on the steps taken to address interconnectivity issues identified in DHS's Office of Inspector General (OIG) report, OIG-16-10, *FEMA Faces Challenges in Managing Information Technology*. The report identified key findings related to duplicative and time-consuming data entry because of lack of interface between WebEOC and FEMA's financial management systems and various state WebEOC-type systems.

To address this known connectivity gap with state/territory systems (both WebEOC and non-WebEOC), FEMA provided every state/territory with FEMA WebEOC user accounts in order for users to submit their resource requests directly to FEMA. If the state/territory chooses not to submit resource requests directly through FEMA's WebEOC system, a FEMA employee will enter the request into FEMA's WebEOC. Additional system interconnections with every state/territory to WebEOC would be costly, complex, and would increase FEMA's exposer to cybersecurity risk significantly. FEMA does not believe that the potential for minimal time savings gained by directly interfacing systems in order to submit and approve resource requests is cost-effective. Further, each state/territory system does not interface with its many local jurisdictions' systems necessarily, so an interface would not address time constraints fully.

The OIG report also identified the FEMA process in which approved resource requests in FEMA's WebEOC are entered into FEMA's Enterprise Coordination and Approval Processing System (eCAPS) and FEMA's Web Integrated Financial Management Information System (WebIFMIS). The agency made a conscious decision not to pursue connections with financial systems, in favor of ensuring the openness of the system, and to protect against restrictions to access and use by external partners. However, FEMA since has developed an updated workflow process that circumvents the need for connectivity between WebEOC and eCAPS. The updated workflow process has been successful, now is optimized within WebEOC, and allows data to be entered into eCAPS without overburdening the users. Interconnection between eCAPS and WebIFMIS has been in place for many years and does not require manual data entry between the two systems.

Further, FEMA's mission assignment policy allows FEMA to issue mission assignments verbally to other federal agencies to address time-sensitive issues without the need to issue a paper or electronic mission assignment immediately. Therefore, there is no time delay for FEMA to deploy critical response capabilities to a requesting state/territory while the administrative task of entering the financial package into WebEOC and eCAPS for obligation is in process. The verbal mission assignment is recorded in WebEOC as soon as possible, usually within 12 hours, using the standard process, but the verbal tasking is sufficient for the assigned agency to initiate action.

FEMA will continue to implement policies, procedures, and improvements to WebEOC, as necessary, to reflect technological improvements, operational necessities, and lessons learned from response operations. However, FEMA is confident that the improvements referenced in this report should satisfy fully the requirements in House Report 114-668 to implement policies, procedures, and activities necessary to improve interconnectedness with state EOCs.

Web Emergency Operations Center (WebEOC) Interconnectivity

Table of Contents

I.   Legislative Requirement

This document responds to the reporting requirements set forth in House Report 114-668 accompanying the Fiscal Year (FY) 2017 Department of Homeland Security (DHS) Appropriations Act (P.L. 115-31), which states:

> According to a recent audit by the DHS OIG (OIG–16–10), FEMA's Emergency Operations Center (EOC) is not electronically interconnected with state EOCs, relying instead on an inefficient manual process that can cause delays in providing disaster assistance. The Committee expects FEMA to implement policies, procedures, and activities necessary to improve interconnectedness between FEMA and state EOCs, and directs FEMA to report on its progress not later than 180 days after the date of enactment of this Act.

II. Background

The Web Emergency Operations Center (WebEOC) is FEMA's Crisis Management System (CMS). WebEOC supports emergency management processes and functions by providing a real-time common operating picture for FEMA headquarters and regions, as well as for federal, state, territory, and tribal partners. The system provides multitiered situational awareness of incident support and management activities, including, but not limited to, significant event tracking, resource request processing, resource tracking, and incident action plan development.

House Report 114-668 accompanying the FY 2017 DHS Appropriations Act (P.L. 115-31) requires FEMA to report on steps taken to address interconnectivity issues identified in DHS's Office of Inspector General (OIG) report, OIG-16-10 *FEMA Faces Challenges in Managing Information Technology*. The report identified key findings related to duplicative and time-consuming data entry because of lack of interface between WebEOC and FEMA's financial management systems and various state WebEOC systems:

> *In addition to the grant systems, FEMA's primary watch and response collaboration system, WebEOC, is not sufficiently integrated with key agency systems. When state or local governments are overwhelmed during a major disaster, FEMA uses mission assignments to request immediate short-term emergency response assistance. FEMA personnel enter information into WebEOC, which processes and tracks the mission assignment requests. Personnel also must manually enter the same information into [Enterprise Coordination and Approval Processing System] eCAPS, the financial approval system used to process mission assignments, and [Web Integrated Financial Management Information System] WebIFMIS. Figure 4 shows the manual data entry required for the mission assignment process.*

Figure 4: Process to Create Mission Assignments

Source: DHS OIG-generated from FEMA data.
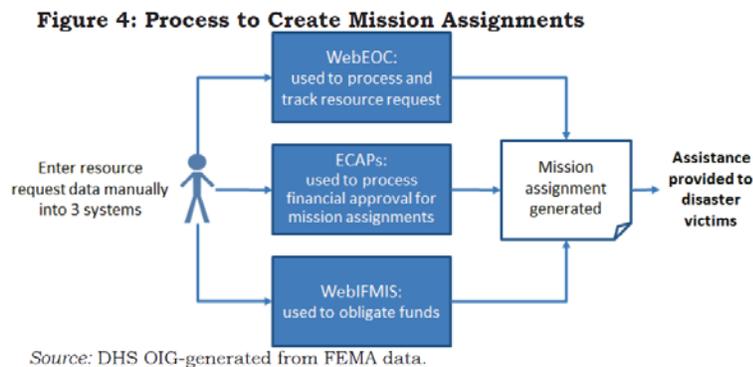
> *Further, the FEMA WebEOC is not integrated with the WebEOC used by state emergency operation centers. FEMA regions rely on an inefficient manual process to update the FEMA WebEOC with information from the state centers about ongoing disasters. Specifically, a region has to send FEMA staff to a state emergency operation center to review the state's information. If a state's request for assistance is submitted in the state system, a FEMA staff member must print it out and manually enter the same data into the FEMA WebEOC. This process can cause delays in*

providing disaster assistance. For example, during an exercise in one state, FEMA staff had to manually transfer 18 state requests from the state system into the FEMA system before FEMA could process the requests. According to FEMA staff, this caused a delay of between 2 to 6 hours, which can be critical in emergency management and response, which involves saving lives and preventing property damage.

FEMA acknowledges the findings from DHS's OIG report OIG-16-10, *FEMA Faces Challenges in Managing Information Technology*, and echoed in House Report 114-668. After a thorough review of the findings from the OIG report, FEMA already had addressed these concerns.

The 2017 hurricane season validated many of the efforts that FEMA undertook to streamline the resource request process.

III. Analysis/Discussion

A. Interfaces between FEMA's WebEOC and State WebEOCs

When FEMA first implemented WebEOC in 2012, the agency reviewed several options to connect to state/territory systems electronically. It was determined early on that there was not a cost-effective way to build FEMA's WebEOC system to enable seamless and secure connectivity to the state/territory systems because such a capability would cost approximately $3 million annually and would increase FEMA's vulnerability to security risks.

Therefore, the states/territories continued to manage incident operations independently within their own systems, but FEMA developed a process for the states/territories to submit requests for federal assistance to FEMA outside their systems. State/territory requests may be submitted by paper, fax, or electronic scan via email, or directly entered into FEMA's WebEOC system.

To address this known connectivity gap, FEMA provided every state/territory with FEMA WebEOC accounts in order for their users to submit resource requests directly to FEMA. However, if the state/territory chooses not to use FEMA's WebEOC system, the state/territory may send the request to FEMA via the options noted above, and a FEMA employee will enter the request into FEMA's WebEOC system, which takes approximately 5 minutes to complete.

Further, not all state/territory systems interface with those of their local jurisdictions. Creating interfaces between FEMA's WebEOC and state/territory systems does not resolve the time burden that the state/territory faces to enter requests from its own local jurisdictions. Many states/territories have not integrated their own systems with local systems for various reasons, including cost, time, priority, and lack of standardization.

Finally, a system interface between FEMA's WebEOC and multiple state/territory systems, both WebEOC and non-WebEOC, creates significant cybersecurity risks for the FEMA WebEOC. By creating interfaces with all state/territory systems, FEMA's CMS would be more vulnerable to cybersecurity intrusions. States and territories do not have the same cybersecurity requirements as the Federal Government, and each interface creates a potential entry point into FEMA's WebEOC, should any state/territory's systems become compromised. Considering the growing threat posed by cybersecurity, the minimal time savings that additional interfaces may provide were determined not to outweigh the cost and risk that FEMA would assume.

B. Interface between FEMA WebEOC and FEMA Financial Systems

The OIG report also identified as an issue the FEMA process in which approved resource requests in FEMA's WebEOC are entered into FEMA's eCAPS and FEMA's WebIFMIS.

Providing an interface with FEMA financial systems, though possible, likely would increase the security requirements for WebEOC. During disasters, FEMA must maintain the ability to issue WebEOC accounts rapidly to various state, local, tribal, and territorial partners, not only for

requesting resources, but also for situational awareness. The operational benefit of WebEOC is its flexibility, adaptability, and availability for use by as many stakeholders as possible. The agency made a conscious decision not to pursue connections with financial systems, in favor of ensuring the openness of the system, and to protect against restrictions to access and use by external partners. However, FEMA since has developed an updated workflow process that circumvents the need for connectivity between WebEOC and eCAPS. The updated workflow process has been successful, now is optimized within WebEOC, and allows data to be entered into eCAPS without overburdening users. As a result, data entry time has been reduced by a streamlined formatting process developed in WebEOC that allows data from the resource request to be copied easily into eCAPS. Interconnection between eCAPS and WebIFMIS has been in place for many years and does not require manual data entry between the two systems.

Further, FEMA's mission assignment policy allows FEMA to issue mission assignments verbally to other federal agencies to address time-sensitive assistance without the need to issue a paper or electronic mission assignment immediately. Therefore, there is no time delay for FEMA to provide critical response capabilities to a requesting state/territory while the administrative task of entering the financial package into WebEOC and eCAPS for financial obligation is in process. The ability to mission-assign verbally alleviates any delay in approving resources for a state/territory.

The actions listed above demonstrate significant strides to improve FEMA's WebEOC system over the past several years to ensure expeditious movement of critical resources during a disaster response. FEMA encourages states/territories to use FEMA's WebEOC to the greatest extent possible, but because of the reasons outlined in this report, FEMA is not expanding the interface between WebEOC and state/territory systems further at this time.

IV. Conclusion/DHS Action Plan

FEMA acknowledges the findings within the 2015 OIG audit, and the agency has made sufficient progress in remediating the WebEOC time restraints identified in the report. Encouraging state/territorial emergency management partners to utilize their WebEOC accounts to submit requests directly into FEMA's WebEOC shortens the amount of time that it takes for a state/territory to deliver a request to FEMA and for FEMA to source the request. Improvements within WebEOC have shortened the time taken to enter approved mission assignments into eCAPS by mirroring the eCAPS data entry format to facilitate easy copying and pasting of data from one system to the other. WebIFMIS already is integrated with eCAPS to expedite funding for an approved acquisition package. FEMA also may mission-assign other agencies verbally following receipt of a state request, allowing for the administrative procedures to obligate funding in WebIFMIS to occur following issuance.

Cybersecurity threats and cost make interconnectivity between WebEOC and all state EOCs impractical, considering the marginal gains that interconnectivity would achieve. Instead, FEMA has taken steps to reduce the complexity of the resource request process. All states/territories have accounts with FEMA's WebEOC to submit resource requests through the system. If they opt not to use the system, a state/territory may submit resource requests by paper, fax, or electronic scan via email, and a FEMA employee can enter the request in approximately 5 minutes. Finally, FEMA's mission assignment policy allows FEMA to issue mission assignments verbally, preventing administrative burden from delaying the approval of critical resources requested by a state/territory. FEMA will continue to implement policies, procedures, and improvements to WebEOC, as necessary, to reflect technological improvements, operational necessities, and lessons learned from response operations. However, FEMA is confident that the improvements referenced in this report should satisfy fully the requirements in House Report 114-668 to implement the policies, procedures, and activities necessary to improve interconnectedness with state EOCs.