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## INNOVATIVE PRACTICE

### Cybersecurity: Integrating Information Technology, Emergency Management, and Private Sectors into Preparedness and Response Exercises

#### SUMMARY

The *Lessons Learned Information Sharing (LLIS.gov)* research team identifies innovative practices within the whole community and documents these practices for emergency managers to consider for incorporation when developing plans and exercises.

The State of Nevada successfully integrated the Information Technology (IT), Emergency Management (EM), and private sectors into their preparedness and response exercises, improving the state's ability to respond to cyber attacks and increasing opportunities to practice an integrated response.

#### DESCRIPTION

Since 2009, building the state's cybersecurity capability has been a priority for government leadership in Nevada. With increased threat of cyber attacks, Nevada emergency management planners recognized the need to incorporate cybersecurity content into their exercises to address the full spectrum of cyber threats and hazards faced by the state. This effort required participation from the IT sector, and buy-in from the EM and private sectors. Engaging all three of these sectors enabled effective emergency management exercises with a cybersecurity focus—a first of its kind. The Nevada Exercise Officer worked with the state's Chief Information Security Officer (CISO) to develop a plan to integrate all three sectors into statewide preparedness and response exercises.



Mr. David Gustafson, Nevada State Chief Information Officer, at the 2013 Cyber Security Table Top Exercise, held in Washoe County (Reno), Carson City, and Clark County (Las Vegas).

#### Incorporating Cybersecurity Scenarios into State Emergency Management Exercises

Nevada primarily incorporated cybersecurity into its preparedness and response exercises by keeping the cybersecurity content as basic, plausible, and non-technical as possible.

This approach enabled participants unfamiliar with the technological aspects of cybersecurity to fully participate and engage in the exercise. Additionally, incorporating cybersecurity content at a non-technical level helped achieve buy-in from personnel

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throughout the EM and private sectors. With the expertise and input from the CISO, Nevada incorporated plausibility into their exercises by demonstrating how a cybersecurity failure or compromise could affect emergency response. Involving participants from all sectors in the development and planning phases of the exercise also helped ensure all perspectives were included in the exercise scenario.

### **Emphasizing Interconnectedness Between IT, EM, and the Private Sector**

Nevada also successfully integrated IT content into emergency management exercises by emphasizing the interconnectedness of IT and the potential residual effects of a cyber attack on other sectors. Cyber attacks can happen in *near real-time*, making instantaneous information sharing critical. To address this, Nevada made incorporating cybersecurity information sharing into their emergency management and homeland security enterprises a top priority. When possible, Nevada includes CISOs and IT subject matter experts (SMEs) in both the planning and exercise phases. This provides the opportunity for training, collaboration, and information exchange between all sectors.

Additionally, during exercises, the state also invites IT and cybersecurity SMEs from a variety of agencies and organizations to “sit with” their senior management personnel. This simulates the same type of collaboration that would be beneficial before, during, and after a real-world incident.

**Exercising Interconnectedness between Sectors**

DHS Cyber and Critical Infrastructure, state and local governments, utilities, and other organizations are currently collaborating on one of the largest and most comprehensive cyber Table Top Exercises (TTX) to date. The TTX will focus on interconnectedness of all sectors and how intelligence, law enforcement, community leaders, and private-sector utilities share information and work together during the response to and recovery from a large cyber incident in a highly populated jurisdiction.

### **CONCLUSION**

States challenged by integrating cybersecurity into emergency management exercises can consider Nevada’s experience of bringing these elements and stakeholders together. Incorporating cybersecurity into preparedness and response exercises offers the opportunity to increase the integration of IT, EM, and private sectors in preparedness efforts. As a result, this can help improve the state's readiness for disasters and emergencies.

### **REFERENCES**

Timothy Cary, Exercise Officer, Nevada Department of Public Safety, Division of Emergency Management–Homeland Security. Christopher Ipsen, Chief Information Security Officer, State of Nevada. Wendy Bailey, Exercise Specialist, FEMA Region IX. Christopher Smith, Chief, Nevada Department of Public Safety, Division of Emergency Management–Homeland Security. Personal Interview. February 14, 2014.