OVERVIEW – The Emergency Preparedness System (EPS) is an innovative, online platform that educates and trains employees on how to improve outcomes in the event of a disaster or emergency scenario.

CHALLENGE – Community resilience is the ability for a population to utilize available while recovering from an adverse situation. Preparing for a variety of catastrophic scenarios – including natural disasters – can help individuals be in a better position to improve overall outcomes. A component of resiliency is emergency preparedness, which is defined as a continuous cycle of planning, training, evaluating and taking corrective action to ensure effective coordination during an incident response. Many businesses – both public and private – lack the resources, planning, or executive support to implement proactive strategies.

The County of Orange sought to change the culture of safety by implementing innovative technology that was readily accessible to its staff. OC Information Technology (OCIT) wanted to develop a product that could provide users with the training, education, and tools needed to respond properly to a variety of potential situations.

INNOVATIVE SOLUTION – The Emergency Preparedness System (EPS) is a web-based platform that houses organizational procedure and policy documents and provides interactive education and training. It takes lengthy, comprehensive paper documentation and translates the information into something readily available and comprehensible by a variety of stakeholders.

EPS incorporates the following innovative technologies:

- Single Sign-On for ease of login
- Support role-based security
- Electronic submission of safety forms
- Safety training/certification tracking
- Automated alerts on expiring certificates

One of the key features of EPS is its role-based, location-based technology for training and assessment. The system categorizes employees based on their role in an emergency. Employees have access to specific, customized training based on the location they work in. Supervisors, managers and executives that work from multiple locations can receive multiple trainings for each site. Additionally, regular employees are exposed to training and procedures that deliver basic information for a variety of scenarios, ensuring maximum comprehension. Management and members of the safety team receive specialized training and assessments to guarantee the best possible outcomes in the event of a disaster or emergency. Training components range from earthquakes, fires, building evacuations, civil disturbances, active shooter scenarios and first aid response. Because the application is location-based, particular sites that have more unique requirements can be incorporated as well; for example, the OC Data Center, which houses the County's entire network and IT infrastructure, may need activation of the halon system for a fire or operation of a backup generator. This customization functionality makes EPS an extremely versatile system.

The platform uses a variety of innovative visual technology to help with absorption of crucial content. An interactive floor plan demonstrates emergency evacuation routes, the location of Automated External Defibrillator (AED) machines & fire extinguishers, and the names of staff that are trained in CPR/First Aid.
The map provides data based on where the user is located, giving an employee specific information that improves their own personal response in an emergency. EPS also features the capability to send out notifications to staff in the event of an incident (e.g. a scenario requiring CPR would notify training employees). Additionally, the system can utilize virtual reality (VR) to assist in training employees with hands on emergency response; the interactive system can train users in how to operate a fire extinguisher and put out a small office fire using goggles and VR equipment.

Lastly, the application provides reminders for staff to complete training based off certain time parameters; managers can view these details on a backend dashboard system to ensure completion and compliance. This eliminates unnecessary administrative time and protects County agencies from being out of compliance in terms of safety and security.

RESULTS – The Emergency Preparedness System (EPS) has successfully met all of its business requirements and objectives. To date, there has been an 85% completion rate among OCIT employees, all passing the assessment component successfully. User feedback has been extremely positive; employees state that the system is easy to navigate, is readily accessible in a moment's notice, and has helped improve understanding of previously complicated safety training information.

EPS – from an administrative standpoint – is simple to use and provides comprehensive reporting and metrics for executives and safety managers to use. Additional sites continue to be integrated in to the platform with a vision of it being adopted on an enterprise scale over the next several years.

REPLICABILITY – This application can be adopted by any business (public or private) or municipality that wants to address the culture of safety within their environment. Its functionality is customizable, and users have a variety of options to tailor EPS to meet individualized needs. Because it is web-based and hosted in the cloud, costs are minimal, and it is accessible from virtually everywhere. Furthermore, utilizing SCORM technology, the platform can seamlessly plug in to many different learning management systems (LMS) to sync data, allowing managers to get a complete view of an employees training portfolio.

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