State of Missouri
2021 Governor's Award for Quality and Productivity
Executive Summary

Project or Team Name: MoAlerts Implementation Team

Nominator: Captain Christopher S. Jolly

Nominating Department: (Nominations must include names of all agencies/departments/organizations/businesses, etc.)

Missouri State Highway Patrol

Category: Innovation

Executive Summary: Executive Summary page must be 500 words or less, 12 point, Times New Roman font, and left justified. **Attach the Executive Summary to the front of the nomination.**

When a child is abducted and an AMBER Alert needs to be issued, every second counts when it comes to notifying the public, law enforcement, and the news media. Any delay in notification, no matter how minor, has the chance of putting the child's life at greater risk. Conversely, every second saved increases the chance that the notification will reach those closest to the abduction location in the hopes that the child may be saved before the abductor leaves the general area. In the same way that AMBER Alert works to protect children, Blue Alert as well is a vital new program that works to notify the public, criminal justice personnel, and the news media of situations that involve extreme threats to law enforcement officers. Just as with AMBER Alert, timely notification has the potential to save lives. It is for these reasons that the Missouri State Highway Patrol created the MoAlerts application.

The MoAlerts Implementation Team recognized early on in the project that in addition to increasing the timeliness of alerts, the new application must also leverage as many avenues as possible to provide notification to the public, law enforcement, and news media. With this in mind, the team implemented numerous concurrent notification methods that include alerts to cell phones, television, radio, social media, and e-mail subscriptions. For television and radio in particular, the alert includes text-to-speech technology that automatically converts the text contained in the alert to speech for playback over broadcasting stations. In addition, the MoAlerts team wanted the application to be as flexible as possible and implemented the ability for alerts to be targeted to specific locations within Missouri, down to a Troop region or even a county level. Lastly, in compliance with Hailey's Law which was passed in 2019, the team built a direct web service interface with the Integrated Public Alert and Warning System (IPAWS) to greatly increase the timeliness of wireless alerts and also include a clickable link that the public can use to view more information about the alert.

Since the implementation of MoAlerts in November 2019, the timeliness of alerts has increased drastically, averaging only two minutes from the start of the entry until the time the wireless alert is broadcast to cell phones. To date, the link contained in the wireless message has been clicked over 2.6 million times. Lastly, the MoAlerts Twitter page where alerts are automatically posted for broadcast over social media has almost 20,000 followers. During that same timeframe the application has been used to issue twenty AMBER Alerts and one Blue Alert, with seven of these alerts leading directly to the successful resolution of a child abduction. This led the National Center for Missing and Exploited Children (NCMEC) to highlight three of these Missouri cases on a national level, sharing the success stories with the AMBER Alert Coordinators from all 50 states, along with all Clearinghouses, the Department of Justice, and other AMBER partners.

Video Summary: A brief - no longer than three minute - video summary may also be submitted via a link. Submission of a video summary is optional.

I. GENERAL INFORMATION

Department: Missouri State Highway Patrol

1. **Project or team name:** MoAlerts Implementation Team

2. **List the name of all team members, job titles, state agency department, and/or other organizations including public, private sector or business:** *(Please list alphabetically by last name – 2 to 20 team members maximum.)*
   1. Jessalin A. Anderson - Communications Operator III
   2. Ryan C. Badresingh - Computer Information Technology Specialist II
   3. Lori K. Enderle - Section Chief
   4. Michelle L. Frey - Computer Information Technologist III
   5. Paula J. Heckes - Assistant Chief Operator
   6. Jacob N. Hendrix - Computer Information Technology Specialist II
   7. Jacob M. Kliethermes - Computer Information Technology Specialist II
   8. Lacy J. Koncor - Communications Operator III
   9. Lela A. LaValley - Assistant Chief Operator
   10. Amanda E. Libbert - Programmer/Analyst Manager
   11. Michanne E. Mattson - Communications Operator II
   12. Jessica L. Moyer - Computer Information Technology Specialist II
   13. James M. Parks - Chief Operator
   14. Jeffrey D. Reece - Assistant Director
   15. Tonya M. Schaben - Computer Information Technology Specialist II
   16. Todd D. Schneider - Computer Information Technology Specialist II
   17. Drew M. Wansing - Computer Information Technology Specialist II
   18. Steven C. White - Assistant Director
   19. Harley S. Wilkins - Computer Information Technology Specialist I
   20. Lindsay M. Williams - Assistant Chief Operator

3. **Nomination Category:** *(Check only one.)*
   ☒ INNOVATION   ☐ CUSTOMER SERVICE

   ☐ EFFICIENCY / PROCESS IMPROVEMENT

4. **Explain why you selected this category:**

The MoAlerts system is a custom application built entirely by employees of the State of Missouri that is one of the first in the nation that integrates full alerting capabilities, including targeted wireless alerts that include a clickable link, alerts to radio/television stations, social media, e-mail, and text-to-speech functionality. Since its implementation, MoAlerts has been credited with the direct resolution of seven child abduction cases and the indirect resolution of numerous others. The innovation category was chosen due to the innovative way that the MoAlerts app leverages five parallel methods of notification (1. Wireless; 2. Radio; 3. Television; 4. Social Media; and 5. E-mail) to notify the public and news media of AMBER and Blue alerts.

II. BACKGROUND

1. **When did the team begin its work?**
July 2017

2. What date did the team initiate the implementation phase of the project?
November 2019

3. Is the project:

☐ Time Limited   ☒ Completed   ☐ Ongoing

III. PROJECT DESCRIPTION

1. Why was the project necessary?

This project was necessary due to the recognized need for improvements to the existing AMBER Alert process. In the past it would sometimes take as long as 30 minutes from the time an AMBER Alert was approved to the time the alert was ultimately sent to wireless devices. With the implementation of the MoAlerts application, alerts can now hit wireless devices in as little as 60 seconds after approval. Furthermore, the application includes a link within the wireless alert that the public can click on to receive expanded information on the alert. Lastly, in the past alerts had to be sent statewide, regardless of where the abduction occurred. The MoAlerts application now gives the AMBER Alert Coordinator the flexibility to target alerts to specific regions and/or counties in Missouri.

2. What were the primary goals of the project? *(150 words or less.)*

There were five primary goals of the project:

1. Implement an application that could be used for the issuance of AMBER and Blue Alerts.
2. Ensure that wireless alerts and tv/radio alerts could be delivered to the public and news media as quickly and efficiently as possible.
3. The inclusion of a link within the wireless alert that the public can click on to provide expanded information about the alert and receive updates as they are known.
4. The ability to automatically notify the news media via e-mail when an alert occurs and provide continued e-mail notifications anytime an alert is updated so that they can in turn rebroadcast the updated information as efficiently as possible.
5. Incorporate the capability to target alerts to specific regions and/or counties of the state thereby increasing the flexibility of the entire process. This removed the previous necessity to send all alerts statewide, regardless of where the abduction or incident occurred.

3. Describe the project: *(200 words or less.)*

This project was built entirely by employees of the State of Missouri and no vendor or contract staff were used. The Missouri State Highway Patrol's Criminal Justice and Information Services Division (CJIS) Application Development staff worked with personnel in the Communications Division, the Public Information and Education Division, and the Missouri AMBER Alert Coordinator to learn the many routes that an Alert can be issued and the numerous stakeholders that need to be notified. The project also involved working with numerous outside stakeholders to include the Integrated Public Alert and Warning System (IPAWS), Twitter (for social media integration), the Missouri Broadcasters Association, the AMBER Alert Oversight Committee, and members of the Missouri General Assembly to ensure that the application could incorporate functionality that met the many needs of these groups.

4. What technology, if any, was used in the development, implementation, maintenance or measurement of the project? *(150 words or less.)*

The skillsets required to implement the technologies used by this application were many. MoAlerts relies heavily on web service interfaces to IPAWS and Twitter to ensure that alerts are sent out quickly and efficiently. Knowledge of FIPS and GPS encoding was required to allow for the capability to target alerts to

specific areas of the state. Text-to-speech expertise was needed to accurately convert text entered into an alert to audible speech for playback over television and radio. Last but definitely not least were the skills required to develop a friendly user-interface that allows for the efficient entry of not only data but also the cropping of photos for victims, suspects, and vehicles for viewing by the public and news media.

5. **Explain how the accomplishment of the team exceeds its regular duties and responsibilities.**
   (150 words or less.)

The team involved in this project remains committed to continue to enhance the system and monitor the application to ensure that alerts run smoothly. Since alerts can occur at a moment's notice, team members remain prepared to log-in and monitor alerts at any time day or night. Since its implementation, the team has monitored all 21 of the alerts that have been initiated, regardless of whether the alert was during normal business hours or overnight. This willingness to, in essence, always be on call 24/7/365 days of the year, demonstrates a commitment to the Missouri State Highway Patrol and the citizens of Missouri that exceeds all expectations.

6. **Which of the following describes the intended benefits of the project?** (Check all that apply and provide an explanation. - 150 words or less)

   ☒ Cost Reduction　　☒ Time Savings　　☒ Increased Effectiveness
   ☒ Improved Process　　☐ Other: Describe

Explain the intended benefits: The MoAlerts application reduces the time it takes to issue AMBER and Blue Alerts and improves the effectiveness of the entire process by allowing the alert to be shared concurrently across multiple different mediums in an automated fashion. In addition, since it was built entirely by the Missouri State Highway Patrol Application Development personnel, there are no ongoing vendor or contractual maintenance costs thereby delivering a cost savings to the State of Missouri as well.

IV. RESULTS / MEASUREMENT

1. **Explain how the success of the project was measured and what outcomes were achieved.** (Explanation should not exceed 300-500 words.)

The success of this project was measured in terms of the direct influence that the application has had on the resolution of AMBER and Blue Alerts. Since its implementation, MoAlerts has been directly credited with the successful resolution of seven child abduction cases. In July of 2020, the National Center for Missing and Exploited Children (NCMEC) sent an e-mail to all AMBER Alert Coordinators, Clearinghouses, Department of Justice, and AMBER partners nationwide that highlighted seven successful uses of AMBER Alerts by various states. Of the seven successful cases that were selected to be highlighted, three cases were from Missouri and originated from the MoAlerts application. No other state was selected more than once, let alone three times, for the accomplishments of its program during that period. This shows that the success of the MoAlerts application is not only being recognized by Missouri partners, but is also being acknowledged on a national level. In addition to the number of lives saved, the success of the program has also been measured in the decreased time it takes for a wireless alert to be issued and the number of citizens that subsequently click on the link included in the wireless message. Prior to the implementation of MoAlerts it was not uncommon for a wireless alert to take up to 30 minutes to hit cell phones once approved. With MoAlerts, wireless alerts take on average two minutes to hit cell phones, a 1400% increase in timeliness. Meanwhile, 2,624,156 individuals have clicked the link contained in the wireless alert, despite the majority of these alerts being targeted to a specific region rather than statewide, thus showing the far reach of the program. Lastly, in May of 2021, the MoAlerts application made history when it successfully issued Missouri's first ever Blue Alert.

2. **Are the benefits derived from this project:** (Check only one.)

   ☒ Recurring　　☐ One-time

3. If recurring, how will the benefits be sustained? (Explain in 150 words or less.)

Due to the fact that the MoAlerts application was developed completely by Missouri State Highway Patrol employees, there are no vendor or contractual maintenance costs associated with the application and thus the current benefits can be sustained indefinitely. Furthermore, there are several additional enhancements that the team would like to explore in the future, including the ability to target an alert at an even more granular region through the use of GPS mapping, the incorporation of Silver Alerts and Endangered Person Alerts, the potential to interface with neighboring states for alerts that occur near a State boundary, and the potential to interface with electronic signs managed by MoDOT and the Missouri Lottery.

V. RECOGNITION / AWARDS

1. Has this project previously been nominated for the Governor's Award for Quality and Productivity? If yes, when?

No

2. If yes, for which category was it nominated?

N/A

3. Has this project received any other awards or recognition? If yes, describe.

Yes (Recognition) - In July of 2020, the National Center for Missing and Exploited Children sent an e-mail to all AMBER Alert Coordinators, Clearinghouses, Department of Justice, and AMBER partners nationwide that recognizing seven successful uses of AMBER Alerts by various states. Of the seven successful cases that were selected to be highlighted, three cases were from Missouri and originated from the MoAlerts application.

VI. NOMINATOR'S INFORMATION

Nominating Department: Missouri State Highway Patrol

Name: Captain Christopher S. Jolly

Signature:

Telephone Number: 573-526-6160

E-Mail Address:
Christopher.Jolly@mshp.dps.mo.gov

VII. DEPARTMENT COORDINATOR'S INFORMATION

Name: Judy Murray   **Signature:** Judy Murray

Telephone Number: 573-751-5432   **E-Mail Address:** Judy.Murray@dps.mo.gov

VIII. DEPARTMENT DIRECTOR APPROVAL

Department Director's Name: **Signature:**
Sandra K. Karsten   Sandra K. Karsten

Nomination must be signed ONLY by the Department Director to be eligible for consideration. Nominations not signed by the Department Director will be returned to the agency coordinator.