NASCIO State IT Recognition Awards 2023

From Zero to Real-Time in 4 Days:

Florida Digital Service Deploys Real-Time Messaging to Transform Emergency Response, Cybersecurity, and More

State:	Florida
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Project title:	Florida Digital Service Deploys Real-Time Messaging to Transform Emergency Response, Cybersecurity, and More
Project dates:	September 2022 to present
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Executive Summary

On September 28, 2022, Hurricane Ian slammed southwest Florida as a strong Category 4 storm with sustained winds of 155 mph. Airports and ports in Tampa, St. Petersburg, Orlando, and Key West were shuttered, and 55 public school districts closed. Mandatory evacuation orders were issued for multiple counties, with 300,000 people evacuated from the Tampa area alone.

The cities of Fort Myers, Cape Coral, and Naples were hit the hardest, with a 15-foot storm surge forcing residents onto roofs and with collapsed bridges trapping residents on Sanibel and Pine Islands. By September 29, thousands of people were potentially isolated by floodwaters. More than 2.4 million lost power.

The storm proved to be the costliest in Florida's history, with total damage estimated at $110 billion. Tragically, it was also the deadliest in nearly a century, with 149 fatalities recorded in 19 counties across the state.

In the face of this nearly unprecedented natural disaster, the State of Florida had to act decisively – and fast. Fortunately, the wheels of response were already in motion.

On September 24, President Joe Biden approved a state of emergency declaration and mobilized FEMA, including equipment and people resources. That same day, Governor Ron DeSantis declared a state of emergency for all of Florida and mobilized the state's Division of Emergency Management plus 5,000 state national guard troops.

The response would require technology support, however – especially the information communications technology (ICT) to coordinate disaster preparations, rescue and recovery, and immediate remediation. Responsibility for making all that communication and collaboration work fell to Jamie Grant, CIO of the State of Florida.

Grant and his team – Florida Digital Service, known as FL[DS] – immediately set to work deploying the Slack instant message platform. Slack would provide secure, real-time communication for key contributors involved in hurricane response – from state emergency workers to city and county stakeholders to FEMA and the state national guard. It would be the glue that held the massive emergency response together.

FL[DS] acted fast, rolling out Slack in just 4 days – far quicker than the 12 weeks typically required for an enterprise-class installation. In fact, Slack parent company Salesforce reports that it was the fastest-ever deployment of Slack Enterprise Grid.

But just as the wheels had already been in motion for the hurricane response, so had the groundwork already been laid for an agile technology infrastructure in Florida. That foresight proved crucial to the rapid rollout and successful use of Slack during the disaster. It's also enabling exciting new use cases for Slack – including the transformation of cybersecurity preparedness and response throughout Florida at both the state and local levels.

Addressing Fundamental Needs

Before deployment of a secure instant message platform during Hurricane Ian, Florida didn't have an effective way to support real-time communication across state agencies or with city and county governments. Instead, the state relied on traditional email for asynchronous communication, with all the attendant challenges of slow interactions, incomplete distribution lists, lost messages, and insecure communications.

What Florida needed was a real-time platform that spanned state agencies and extended to city and county organizations. The state tried to use an existing Microsoft Teams deployment as a chat tool, but limited functionality left gaps in capabilities, and the right stakeholders weren't able to send or receive the right content at the right time.

Especially during a natural disaster, the state lacked a centralized means of communicating with emergency management and other government stakeholders. It likewise lacked a way to allow stakeholder groups to connect with one another – from centralized decision-makers planning response to emergency professionals in the field.

The situation was the same when responding to cyber threats – an increasing concern across the nation as more state and local agencies fall prey to sophisticated cyber attacks. Relevant state organizations such as FL[DS] and the Florida Division of Emergency Management had no way to quickly capture information and provide guidance when responding to cyber incidents across agencies. City and local organizations, for their part, had no way to access state-level resources in real time. As a consequence, all levels of government were at greater risk of system downtime and data loss from a cyber incident.

Laying the Groundwork, Responding in Real Time

Those issues came to a head when Hurricane Ian struck. FL[DS] responded with the fastest-ever deployment of Slack Enterprise Grid, which is designed for large and complex organizations that require strong security.

Initial deployment was to a relatively small number of about one dozen users to enable real-time communication among FL[DS], the Division of Emergency Management, and private-sector services providers, including SpaceX.

SpaceX was instrumental during the hurricane response, following Florida's purchase of access to its Starlink satellite constellation. Starlink Kits – which combine satellite-based internet, WiFi router, power

supply, and other functionality – were distributed to local communities to provide communications to both emergency responders and Florida residents affected by the storm.

But the groundwork for record-fast rollout was laid as early as 2020, when Grant was named CIO of Florida and FL[DS] was formed as the state reorganized its IT operations. FL[DS] is part of the Florida Department of Management Services (DMS), which created FL[DS] to transform technology in the state. FL[DS] manages six core objectives:

- Recruit top talent.
- Improve data interoperability.
- Implement a cloud-ready architecture.
- Adopt agile methodologies.
- Strengthen cybersecurity.
- Achieve digital transformation.

Grant and FL[DS] were already delivering on these goals, bringing onboard experienced IT pros, modernizing infrastructure, and embracing a nimble mindset that could respond quickly to unexpected demands. In fact, FL[DS] began talking with Slack parent company Salesforce in August 2022 – a few weeks before Hurricane Ian – about how the platform could optimize cybersecurity response.

Collaborating for Success

FL[DS] managed an effective public-private partnership for the deployment of Slack, working closely with Salesforce, SpaceX, and other service providers. Fostering a virtuous circle, the collaboration drove rapid deployment of Slack, while simultaneously enabling closer collaboration with SpaceX and other vendors.

Also crucial was the sophistication of the FL[DS] team, which Salesforce praised as “second to none,” noting that the rapid rollout is testament to the team’s expertise, professionalism, and commitment to results.

That commitment begins in the governor’s office and continues throughout the state legislature. Investments in DMS, FL[DS], and technology across Florida’s state and local government organizations for the 2022-2023 fiscal year include:

- $50 million in cybersecurity resilience funding for state agencies – the largest cybersecurity investment in state history
- $7 million to assess the cybersecurity risk of the state’s critical infrastructure
- Thirty new full-time positions to advance statewide cybersecurity and IT modernization initiatives within FL[DS]
- $30 million for cybersecurity training of state and local government employees
- $30 million in technical assistance grants to expand cybersecurity resilience to local agencies

The $50 million in cybersecurity funding for state agencies follows $30 million FL[DS] received the previous year to build out the state's first-ever 24x7 security operations center (SOC). By the onset of Hurricane Ian, 30 of 37 state agencies were included in the SOC implementation.

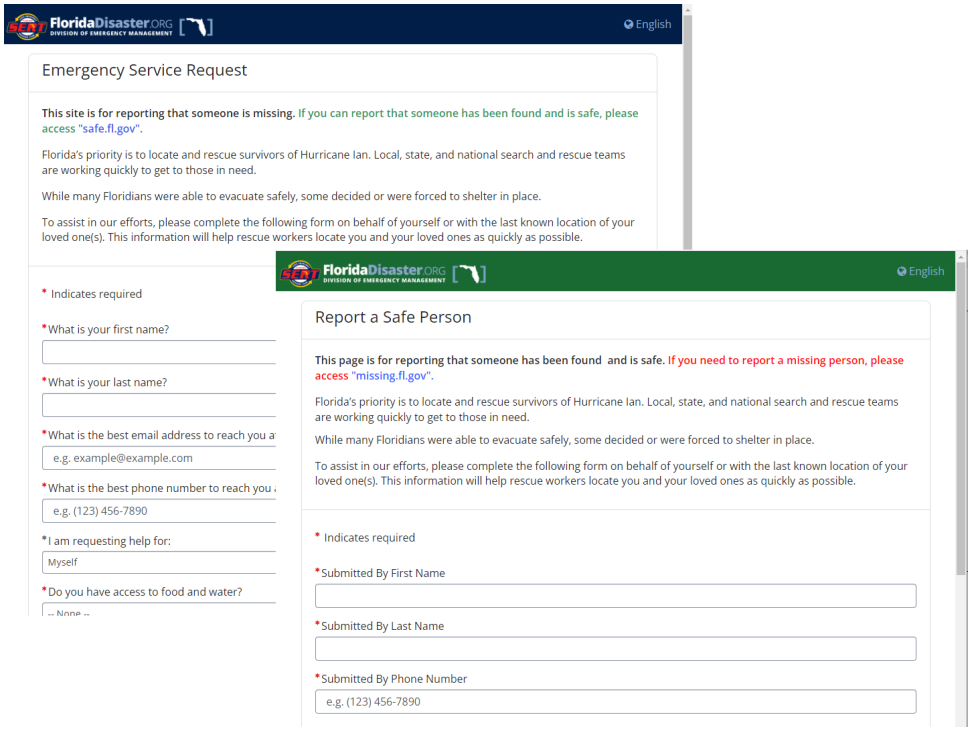
SOC implementation was accompanied by a major initiative to better understand the data assets of every agency – insights that are necessary to adequately protect resources and achieve rapid recovery during a cyber incident. The effort began with a complete inventory of each agency's data repositories. It continued with implementation of standardized data-sharing agreements to ensure real-time collaboration on cybersecurity. Nearly every executive-branch agency now participates in the data-sharing agreements.

Driving Real-World Results

In the midst of Hurricane Ian, FL[DS] and the Division of Emergency Management implemented numerous resources – from Slack to emergency websites – that are delivering dividends going forward. For instance, two web resources continue to empower residents to report that people are missing or have been found:

Missing.fl.gov – Enables citizens to report missing people to initiate a search mission

Safe.fl.gov – Allows citizens to report people who have been found safe



Florida's implementation of Slack involves Slack Enterprise Grid, which is designed to deliver an intuitive, consumer-style user experience along with enterprise-level security and governance. The state's solution license is for 2,000 users. Currently, there are about 138 regular users at the state level and about 150

regular users in local government, with expansive plans to grow the state's connectivity via Slack. To date, Florida has activated 5 workspaces, created 225 channels, and sent 87,000+ messages.

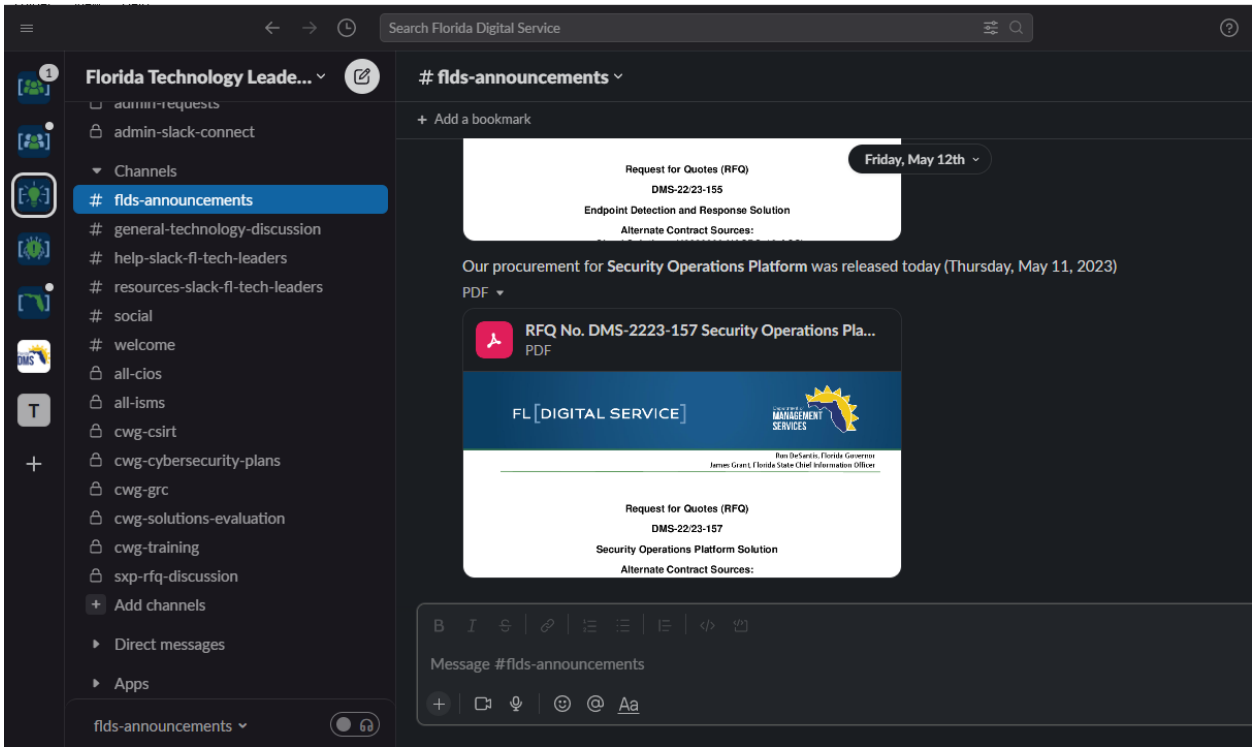
Florida is taking advantage of several innovate features to optimize real-time communication and collaboration:

Channels – Channels organize conversations by topic, team, or incident. It allows users to communicate and share content within a specific context so that stakeholders stay focused and important details are not missed. Channels are managed through access control settings, with public channels for all authorized users and private channels restricted to particular users. For instance, during a cyber emergency Florida can quickly create a channel for internal staff and external service providers responding to the incident in real time.

Workspaces – Dedicated virtual workspaces can be provisioned by criteria such as state agencies, local organizations, incidents, or initiatives to centralize communications and keep relevant stakeholders in the know.

Security – All real-time communications are encrypted using strong (AES 256) encryption to keep sensitive data safe and private. That is crucial for channels that might share information about cyber incidents, law enforcement, or other sensitive topics. Centralized tools allow IT administrators to manage security and maintain compliance across the enterprise.

Auditability – Communications and content are retained in a centralized location for incident retrospectives, "post-mortems," and audits. That enables Florida to benefit from past experiences and lessons learned.



In particular, Florida is using Slack to optimize rapid response to and remediation of cyber incidents across agencies and levels of government. FL[DS] and the Division of Emergency Management are the state's premier cyber response organizations. They use real-time messaging to manage incident response, coordinate that response with state and local agencies, and interact with external service providers.

FL[DS] relies on Slack to maintain horizontal and vertical visibility into cyber health across state and local organizations. It also uses the platform to communicate cyber-related rules and guidance throughout the state.

Looking ahead, FL[DS] expects uptake of real-time messaging to accelerate as local governments take advantage of the $30 million Cyber Grants program. Because the grants focus on technical assistance, FL[DS] anticipates that Slack will be transformative in how it communicates with and supports local-level cyber efforts. In fact, it's already using the platform to assist local governments as they go through the detailed grant application process.

Serving Those Who Serve Florida

The Florida Department of Management Services (DMS) and its Florida Digital Service (FL[DS]) have ambitious plans for the future. A primary focus right now is on recruiting top technical talent to support Florida's cybersecurity challenges and digital transformation goals.

As part of that digital transformation, last year the state consolidated its IT infrastructure and significantly reduced its datacenter footprint. In the process, it was able to reduce the number of technical resources assigned to rote IT administrative tasks. The team continues to grow, seeking additional talent with expertise in emerging technologies that will drive Florida forward.

One of those technologies is real-time messaging, which FL[DS] intends to see adopted across the state. The organization is discovering new use cases, such as coordinating internal users and external vendors as they engage in training sessions in FL[DS]'s newly refurbished digital training facility.

Currently, more than 40 government entities in Florida regularly use the Slack platform. The vision of FL[DS] is that the platform will become not just a means of real-time communication but also a key driver of collaboration and a core enabler of streamlined, digitized processes. Florida is leveraging its investment in innovative information communications technology (ICT) to increase the safety and security of Floridians today and optimize the ability of government at all levels to serve Floridians tomorrow.