



State IT Recognition Awards

Category: Information Communications Technology Innovations

FL[DS] ESF-20

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STARLINK DEPLOYMENT DURING EMERGENCY RESPONSE

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Hurricane IAN was a Category 4 hurricane that made landfall in Florida on October 1, 2022. This storm caused widespread damage and disruption of communication infrastructure, making it difficult for residents to stay connected and access essential post hurricane information. The challenge was to provide reliable and consistent connectivity, even in areas where the traditional communication infrastructure was damaged. The utilization of Starlink during Hurricane IAN highlights the importance of satellite internet service in providing reliable and consistent connectivity during natural disasters.

Starlink is a low Earth orbit satellite internet service that utilizes a constellation of thousands of satellites to provide high-speed internet connectivity to remote and underserved areas. It was developed by SpaceX, a private aerospace manufacturer, with the goal of providing global internet coverage. The system uses advanced technology to provide fast and low latency internet to its users. Starlink offers download speeds of up to 300 Mbps and upload speeds of up to 20 Mbps, making it a viable option for restoration of services.

FL[DS] immediately recognized the importance of restoration of services to the impacted area and the vital role that digital infrastructure plays in our daily lives. It was this forward line of thought that propelled the state into action and fostered the acquisition of Starlink kits.

Why Satellite Internet?

- The world's first and largest satellite constellation using a low Earth orbit to deliver broadband internet capable of supporting streaming, connectivity, video calls and more.
- Ideally suited for areas of the globe where connectivity has typically been a challenge.
- Unbounded by traditional ground infrastructure, Starlink can deliver high-speed broadband internet to locations where access has become disrupted, unreliable or completely unavailable.
- Starlink delivers high-speed, low-latency internet to users all over the world.



To date, Florida is the only state to engage in such a robust digital response to a state emergency operation. Over the course of the recovery efforts, there were more than 120 individual missions, and more than 800 kits deployed. Starlink's low latency and fast speeds made it an ideal solution for emergency responders, who required real-time communication to coordinate their efforts. The service was also beneficial for residents who needed to stay updated on the latest news and weather updates, access emergency services, and communicate with their loved ones. Starlink's coverage area is vast, and the satellites can

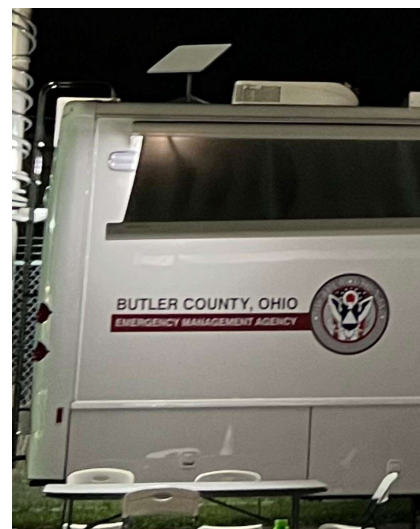
provide connectivity even in remote and rural areas, making it a valuable resource during natural disasters.

Leveraging Satellites to Provide Connectivity

- Largest deployment of Starlink assets in US, second only to Ukraine.
- Acquired First Terminals within 48hrs of Ian making landfall.
- Connectivity within 56 hrs of Ian making landfall.
- First state to acquire and deploy Starlink as a disaster recovery tool.
- Florida currently maintains the largest fleet in the country.



Throughout the relief efforts, more than 45,000 Floridians were able to access critical communication platforms directly through the established Starlink network that Florida Digital Service was able to provide. Use cases included, but were not limited to Disaster recovery center operations, bridge, and causeway assessments by FDOT, urban search and rescue teams, utility companies, Grocery Stores, Pharmacies, Hospitals, Libraries, School Systems, Banks, Restaurants, as well as 20 public hotspot locations.



Impacted Stakeholders

Public Sector

- ACHA
- State Emergency Response Team
- Urban Search and Rescue Teams
- Florida Highway Patrol
- Department of Transportation
- Florida Department of Law Enforcement
- Division of Emergency Management
- County EOCs
- Department of Economic Opportunity
- Public Schools
- Department of Health

Private Sector

- Chamber of Commerce
- Schools
- Grocery Stores
- Banks
- Hospitals
- Pharmacies
- Gas Stations
- Restaurants
- Libraries
- Churches



Hot Spots for Public Access

- 20 Mobile Hot Spots originally established
 - Locations were determined via county officials and on ground coordination.
 - Disbursement intentionally designed to ensure all affected personnel had opportunity to access.
 - As of 31 January, over 45,000 users have accessed public hotspot locations.



Florida paved the way as the first state to encompass a digital emergency response that included rapid acquisition and deployment of Starlink kits. Within 56 hours of Ian making landfall, Starlink kits were being distributed throughout the impacted area in an unprecedented manner. The Starlink deployment was praised by local officials and residents, expressing that the service was a lifesaver and that it made a real difference in the recovery effort.

Timeline

- 28 September 2022- IAN makes Landfall.
- 28-29 ServiceNow Implemented to Manage all Aspects of Digital Response
- 30 September 2022- FLDS coordinates purchase of 30 High Performance Kits.
- 1 October 2022- Florida Power, Search and Rescue teams and Department of Transportation make initial requests.
- 7 October 2022- 647 Additional Kits are purchased to meet request
- 3 November 2022- 500 Additional Kits are purchased



FL[DS] Starlink Operations - The Future

Future Operations and Benefits

- FLDS maintains an inventory for future deployment and emergency response.
- Prepositioned assets throughout the state in conjunction with county Emergency Operation Centers (EOCs).
- Network security enhancements to enable increased utilization capabilities (Cradle Point).
- Real time updates
- Surveillance footage
- Roadway assessments
- Traffic light and highway camera footage
- Automated transactions
- Insurance documentation
- Communication
- Restoration of daily services



Moving forward, FL[DS] continues to enhance the state of Florida's digital posture. Starlink kits are being strategically distributed throughout the state in preparation for the next inevitable event. With each instance, we intend to set the bar higher. While some prefer to maintain the standard, our charge is to EXCEED the standard.

The Starlink deployment in response to Hurricane Ian is a good example of how new technologies can be used to help people in need. It is also a testament to the power of collaboration. FL[DS] ESF-20, local officials, and volunteers all worked together to make the deployment a success.

As we continue to leverage digital platforms and assets, our state stands ready to provide world class response in a moment's notice. ESF-20 and all members of the state emergency response teams are ready and willing to do whatever it takes. ANYTIME; ANYWHERE!