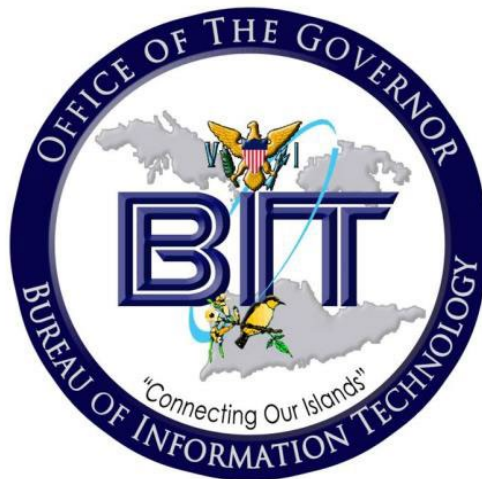# The 35ᵗʰ Legislature of the U.S. Virgin Islands

Committee on Housing, Transportation & Telecommunications

Bureau of Information Technology

Presented by:

Rupert O. Ross

Director/Chief Information Officer

Bureau of Information Technology

Office of the Governor

TESTIMONY

Good morning, Honorable Chairman, Committee on Housing, Transportation and Telecommunications, members and staff of the 35th Legislature, listening and viewing audience. My name is Rupert Ross, Director for the Bureau of Information Technology (BIT or the Bureau) and Chief Information Officer for the Government of the United States Virgin Islands. Also representing the Bureau of Information Technology is Mr. Jonathan Tucker, Deputy Director.

Thank you for the chance to update on our ongoing projects and challenges, and plans related to telecommunications in the territory that may interest the committee.

BIT's mission is to improve lives through innovative technology solutions and services that are secure, reliable, and efficient. We work closely with stakeholders to identify their needs and deliver technological solutions that positively impact the lives of individuals in our community.

The purpose of creating BIT was to establish a centralized and coordinated approach to information technology management and services within the government of the U.S. Virgin Islands. Act 6634 recognized the importance of technology in improving government services, enhancing efficiency, and optimizing costs. Before BIT's creation, each department or agency within the government operated its own information technology systems and services. This decentralized approach often led to duplication of effort, inefficiencies, and disparities in technology resources across departments.

By creating BIT, the Act sought to establish a single entity responsible for the development, implementation, and maintenance of technology services across the government. The creation of the BIT was intended to promote a unified approach to IT management and governance, enhance cybersecurity and data protection, and improve the delivery of government services to the public. With many recent advancements, BIT continues to mature into the organization conceptualized when it was formed.

BIT has also been charged with the operations and maintenance of the Land Mobile Radio (LMR) system that provides critical voice communications to emergency responders and other subscribers to that network. The LMR network is operated in both districts. The twelve (12) tower sites are connected using microwave backhaul and provides 86.4 % coverage throughout the territory[1].

As growth continues, BIT has also added to its portfolio, project management. Some examples of the projects include planning for the FirstNet implementation in the Virgin Islands funded through 2021 by NTIA (National Telecommunications and Information

---

[1] Government of the Virgin Islands Bureau of Information Technology Assessment of Government Wide Area Network (GWAN) and Land Mobile Radio (LMR) Public Safety System

Administration), the implementation/upgrade of the Computer Aided Dispatch\Records Management System, the implementation of the Public Safety Camera initiative, and the expansion of the Public Safety Mobile Data Network.

Looking ahead, the Bureau has several initiatives in the works that will help improve and expand the services it provides. Some of these initiatives include:

- Expansion of the Public Safety Camera initiative in collaboration with VIPD and Sports Parks and Recreation: This initiative involves installing additional cameras in strategic locations across the territory to help improve public safety and security.
- Augmentation to the Public Safety Mobile Network: BIT is currently working on adding more vehicles to the public safety mobile network to ensure that first responders have reliable access to communication tools when responding to emergencies.
- Expansion of the Program and Service Management offices within BIT: The Program and Service Management offices help ensure that our technology solutions meet the needs of our stakeholders. We are working on expanding these offices to better support our ongoing projects and initiatives.
- Continued focus on cybersecurity: As cyber threats continue to evolve, we remain committed to improving our cybersecurity posture to protect our networks and data. We will continue to invest in cybersecurity training, technology solutions, and best practices to keep pace with these threats.
- Collaboration with territorial partners to leverage cybersecurity grant funding: Maximize the State and Local Cybersecurity Grant Program, which provides funding for cybersecurity projects that improve threat detection, incident response, and information sharing. By collaborating with our partners and leveraging these funding opportunities, we can better protect Territory from cyber threats.

The GVI is in transition from a federated network to an enterprise network, which includes common use IT consolidation, single service providers, and building cybersecurity resilience. This strategy will decrease network silos, optimize IT management tools, and realize economies of scale. It is critical that the infrastructure that supports the expansion of the enterprise network is resilient, scalable, and elastic.

As part of our ongoing efforts to modernize our technology infrastructure and improve the delivery of government services, the Bureau has been actively exploring the use of public and private cloud solutions. The implementation of cloud technology can provide many benefits to the organization, including increased flexibility, scalability, and cost savings.

We have made noteworthy progress in our cloud adoption efforts, with the recent deployment of our Nutanix platform and the adoption of Microsoft Azure. These solutions provide us with the ability to easily scale our infrastructure to meet the needs of our growing

organization and to take advantage of advanced features such as machine learning, artificial intelligence, and advanced security tools.

Our private cloud implementation efforts have focused on developing a Network Operations and Security Center and a Network Redesign project. These initiatives aim to enhance our ability to monitor and manage our network infrastructure, to identify and respond to security threats, and to improve overall network performance and reliability.

We recognize that the implementation of cloud solutions also presents unique challenges related to data privacy, security, and compliance. We are committed to addressing these challenges proactively and to implementing best practices and industry standards to ensure the security and privacy of our data.

As we continue to expand our use of cloud technology, we remain focused on identifying opportunities to improve the delivery of government services and to provide our users with the technology tools they need to be successful in their roles. We are excited about the potential benefits of cloud technology and look forward to sharing our progress and achievements in this area in the coming years.

BIT has implemented a multi-tiered strategy for communications to ensure that our critical systems and networks remain operational during emergencies. This includes redundant systems for our public and private cloud infrastructure, as well as backup power supplies and satellite communications A multi-tiered strategy for communications, including terrestrial and non-terrestrial solutions, is important to maintain connectivity during emergencies. As an insular region, we must be resourceful and resilient in the face of challenges. We have also established communication protocols with our key partners, including other government agencies, private sector providers, and community organizations, to facilitate a coordinated response during disasters. These efforts are critical to ensuring that the Government continues to function in a time of crisis.

In continuation of the efforts started from the FirstNet planning grants, BIT continues to work with FirstNet Authority (Authority) on their commitment to meet the Virgin Islands requirements for implementation of the first responder broadband network in the Territory. FirstNet was created by Congress to fulfill one mission: provide emergency responders with the first nationwide, high-speed, broadband network dedicated to public safety. The implementation of FirstNet in the Virgin Islands began in 2018 when the territory joined the national network. During stakeholder engagements and through the efforts of BIT, the Virgin Islands emergency responder community identified their key issues to include geographical coverage areas, interoperability, deployable solutions, resiliency of the system and quality of customer care and support. More specifically, the emergency responder community recommended that resiliency and redundancy of the network be addressed, deployable solutions be prepositioned in the territory, solutions for maritime areas – especially between

islands – are considered, interoperability with the British Virgin Islands be taken into consideration, and that FirstNet customer care and support recognize the challenges of the territory.

The implementation of FirstNet in the Virgin Islands has provided several benefits to first responders. These benefits include improved communication capabilities, enhanced situational awareness, and faster response times during emergencies. The network will also provide first responders with access to innovative technologies such as video streaming, mobile apps, and other data-driven tools that can help them better respond to emergencies. The implementation of FirstNet in the Territory has been partially completed, but the eight new site builds intended to improve coverage and capacity are still pending. As a result, the network coverage and quality of service for public safety officials in the territory are lessened.

BIT continues working diligently with FEMA to move pending projects forward to permanently repair or prudently replace the LMR system. The expected outcome of that effort will be to transition to a more interoperable system with better security features and coverage. In the interim, one of our recent accomplishments has been the implementation of a scrambler feature on VIPD radios. This feature ensures that radio transmissions cannot be intercepted by unauthorized scanners, providing an added layer of security for our law enforcement officers. The use of the scrambler feature has been well-received by VIPD officers, as it allows them to communicate sensitive information without fear of interception. We are proud to have implemented this feature and will continue to explore new ways to enhance the security of our communications systems.

Mitigation is an essential aspect of our disaster recovery planning efforts. BIT continues to work with public and private sectors to ensure that our plans are effective and we can respond quickly to any situation. To this end, BIT has invested in portable communications towers that can be rapidly deployed to areas affected by disasters. These measures have been put in place to ensure that our communication systems remain operational during and after any emergency or disaster.

I am available to answer any questions you may have and look forward to a positive discussion.