



BARBADOS  
PORT INC.

# Port-Maritime Cybersecurity: Protection Against Digital Threats

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- Small, multipurpose port handling over 90% of imports.
- Approx 1,100 vessel calls yearly.
- Over 1.1 million tonnes annually.
- Built the Caribbean's first homegrown Maritime Single Window.
- Built our own Port Community System.

Introduction to  
**Barbados Port Inc.**



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# Digital Evolution of Ports

- Ports have evolved from manual operations to interconnected digital ecosystems
- Cloud platforms, APIs, IoT, PCS, MSW, online payments, satellite AIS, automation
- Increased efficiency also increases attack surface
- Ports are now critical national infrastructure





# Attractive Cyber Targets

- Ports connect shipping lines, Customs, brokers, terminals, public & private sector
- Disruption impacts trade, supply chains, revenue, and national security
- Maritime cyberattacks now affect: Cargo operations, vessel clearance, payment systems, logistics visibility





# Digital Transformation Journey

- PCS and MSW implementation
- ASYCUDA integration
- Octopi: Cloud-based TOS
- Cross-agency interoperability



# Cybersecurity: Built In, Not Bolted On

- Security by design
- Identity and access management
- Segmentation
- Logging and monitoring
- Governance and policy
- Vendor risk management
- Principle of least privilege





# Lessons Learned

- ISP outage affecting PCS/MSW availability
- Government WAN dependencies
- Attempted cyberattacks
- Importance of redundancy and resilience



password  
is  
123456

# The Human Factor

- Most breaches begin with people
- Social engineering
- Weak passwords
- Oversharing
- Insider threats





# Regional Collaboration & Maritime Cyber- Resilience

- Ports cannot secure themselves in isolation
- Information sharing
- Standards alignment
- Regional coordination
- Cross-border interoperability
- Joint exercises





# The Future of Maritime Cybersecurity

- AI-enabled threats/AI-assisted defense
- Predictive analytics
- Zero-trust architecture
- Supply chain security
- Cloud governance
- Operational technology (OT) security





# Key Takeaways

- Digital transformation and cybersecurity must evolve together
- Maritime systems are now critical infrastructure
- Resilience is as important as prevention
- Cybersecurity requires people, process, and technology
- Regional collaboration is essential



# Thank You!

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