PARAGON MICRO
EXPERIENCE THAT KEEPS IT EASY.

Protecting Patient Care in an Always-On, Digital Healthcare Network

How proactive threat hunting and expert-led security reduced cyber risk while protecting patient-critical systems.

Managing Cyber Risk in a Digital-First Healthcare Environment

A pioneering North American hospital, recognized as the continent's first fully-digital facility, operates with nearly every aspect of patient care—clinical applications, EHR systems, APIs, and connected medical devices—running through an always-on network where downtime is simply not acceptable.

While the digital-first model improved efficiency and care delivery, it also introduced new risk. As more systems and devices connected to the network, the hospital's attack surface expanded rapidly, with each new integration, API, and IoT device creating additional exposure. At the same time, integration complexity and API challenges threatened EHR performance, clinical workflows, and regulatory compliance.

North America's First Fully-Digital Hospital

Shifting to Proactive, Expert-Led Cybersecurity

Traditional, reactive security models were no longer enough. Waiting for incidents to happen before responding could put patient-critical systems, clinical operations, and regulatory standing at risk. The hospital needed a new approach to:

- Manage risk across a highly complex, always-on digital environment
- Strengthen perimeter defenses while maintaining performance and integration
- Proactively identify and mitigate threats before they could impact patient services

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Strengthening Security Without Disrupting Care

Expert-Led Threat Hunting

Paragon Micro led intelligence-driven threat hunting through staff augmentation, providing dedicated coverage that enabled early detection of anomalous behavior and proactive mitigation of emerging risks.

Secure API and EHR Interoperability design

Secure API interfaces were developed and validated to support reliable and performant EHR data exchange, ensuring interoperability while maintaining strict security controls.

Firewall and Perimiter Modernization

Internet-facing firewalls were upgraded, improving perimeter resilience, traffic segmentation, and overall security posture.

Paragon Micro worked with the hospital to implement an integrated approach to compliance, connectivity, threat hunting, and delivery, with zero impact to patient services.

Compliance and Audit-Readiness Support

Ongoing audit support aligned with hospital IT governance standards and Ministry of Health compliance frameworks helped HRH maintain regulatory readiness.

Structure PMO for Zero-Disruption Delivery

Paragon Micro PMO led structured planning, change management, and stakeholder coordination to deliver services on time and within budget while maintaining uninterrupted patient care operations.

Delivering Confidence in a Digital-First Healthcare Environment

By combining expert-level security leadership with ongoing threat hunting and infrastructure modernization, Paragon Micro enabled the hospital to confidently protect its digital ecosystem, supporting safe, uninterrupted patient care in one of the most advanced hospital environments in North America.

- **Proactive Threat Detection with Reduced Cyber Risk Exposure**
- **Continued Operational Uptime for Critical Patient Care Services**
- **Secure, Reliable EHR Interoperability with Meditech Systems**

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