



THE VALUE OF PERFORMANCE.

NORTHROP GRUMMAN

Federated Cyber Range

Emulating Networks to Investigate Vulnerabilities

The cyber challenge

It is not always possible to carry out vulnerability testing or training on live networks. Sometimes the network is just too operationally critical to accept the inherent risk of an interruption in service. Sometimes the procedure requires realistic attack without artificial constraint. In this case only a realistic and scalable emulation of the network that includes internet services and protocols will provide the fidelity needed whilst providing the freedom to carry out intrusive, destructive testing and training.

The solution

Northrop Grumman has addressed this challenge in the United Kingdom by building the Federated Cyber Range at Fareham. The Federated Cyber Range is a highly flexible test and training environment for IP-based networks; it supports deep intrusive testing to help evaluate information technology, network operations and cyber security defence.

Unconstrained test and training environment

Because it is not affected by the constraints of using a live network, the Federated Cyber Range can stress test network architectures to reveal hitherto hidden vulnerabilities. It also offers a realistic environment in which to train defence teams to react swiftly and appropriately to the latest cyber-attack vectors. To support these twin needs of testing and training, a wide variety of complex logical architectures can be programmed to represent realistic levels of traffic and live malware based upon customers' use cases and scenarios.

The Federated Cyber Range is extremely controllable and configurable with high levels of instrumentation and it readily hosts specific customer hardware and software for added realism. With a capacity of thousands of virtual hosts the Federated Cyber Range has the required scale to achieve meaningful results.

A complete IP test service

Northrop Grumman offers a flexible menu of cyber test and training services supported by experienced cyber test engineers all based at the Federated Cyber Range at Fareham. The technology for the Federated Cyber Range is based upon Northrop Grumman's long standing US cyber range operations and is export-ready for use by international customers.

Own your own cyber range

Northrop Grumman can design and build cyber ranges to a customer's specification, with flexible options for through-life support and training.

- High-confidence testing and vulnerability analysis
- Realistic cyber training environment
- High fidelity emulation of IP networks
- Capacity for thousands of host systems
- Realistic traffic and live malware
- Actionable metrics-based solutions

For more information, please contact

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Northrop Grumman reserves the right to amend the
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