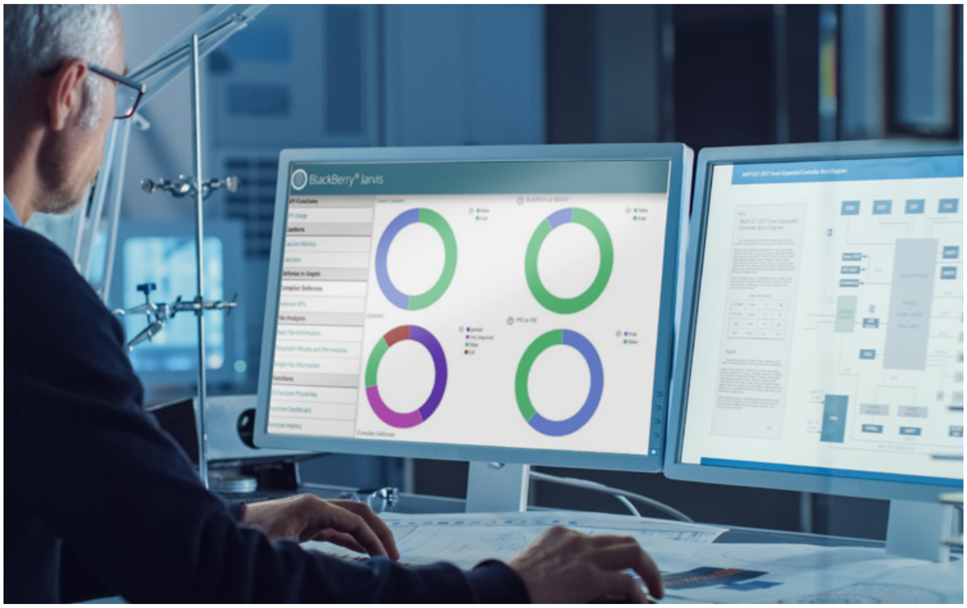
BlackBerry | QNX

Data Sheet

Embedded Systems Penetration Testing

BlackBerry QNX Professional Services



The security of your embedded system is only as good as its least secure hardware and software components. This is why it's important to fully understand security across the supply chain and entire lifecycle.

Backed by 30 years of experience in cybersecurity and a proven binary code scanning solution, BlackBerry® has developed a set of security services including an OSS Assessment, a Software Security Assessment and a Penetration Testing service package to identify potential threats that may come with using certain open source or third-party software in your embedded system.

BlackBerry has deep expertise and decades of security research and development to help you protect your products. Traditional security consultants test to find holes, and then go home just as the real work begins. BlackBerry will support your organization from product design to ongoing incident response. Our security engineers can advise on secure architecture design, development, deployment, and supply chain management whether you are looking to build a secure platform, harden a product, or deploy a secure and effective IoT capability.

You can also rely on the embedded system expertise of BlackBerry QNX services team. QNX® has been the operating system of choice for mission-critical embedded systems for the last 40 years and we have helped thousands of customers design safe, secure and reliable systems.

Penetration Testing with Software Quality Analysis

Leveraging BlackBerry's security expertise and binary code scanning AI, we will run a thorough assessment of the vulnerabilities of your embedded system. A detailed report quantifying the severity of any vulnerabilities found and recommendations for rectifying them will also be provided.

BlackBerry will assess the security of your system hardware and software by attempting to breach some or all of that system's security, using the similar tools and techniques employed by a potential adversary.

We will tailor our specific techniques to the system being assessed. The overall strategy is to understand weaknesses in the software's security design by inspection, then define and test exploits. More complex systems may also warrant the definition of threat models such as misuse cases, attacker profiles and a threat testing plan.

BlackBerry Jarvis

BlackBerry Jarvis™ is a cloud-based, binary static application security testing (SAST) platform. Through cutting-edge system exploration technology, Jarvis provides powerful capabilities to examine a complete software product for security vulnerabilities and software craftsmanship. Since BlackBerry Jarvis extracts the characteristics and attributes from compiled binaries, access to source code isn't required.

Package Details

Planning

- Scoping
- Definition of rules of engagement

Exploitation

- Attack identified hardware interfaces
- Reverse engineering on the extracted firmware
- Software vulnerability exploitation
- Software security controls testing including: secure boot, code protection, key handling and protection

Information gathering and discovery

- Hardware analysis
- Software composition file type recognition
- Static firmware analysis and vulnerability identification
- Interface and access assessment (MITM, CAN, BT, WiFi, Ethernet, etc.)

Reporting

- Detailed exploitable vulnerabilities found and reproduction steps
- Vulnerabilities report by likelihood, impact and criticality
- Mitigation recommendations

Threat Modelling

- Attacker profiling
- Risk and threat analysis
- Misuse case analysis

About BlackBerry® QNX®

BlackBerry QNX is a leading supplier of safe, secure, and trusted operating systems, middleware, development tools, and engineering services for mission-critical embedded systems. BlackBerry QNX helps customers develop and deliver complex and connected next generation systems on time. Their technology is trusted in over 150 million vehicles and more than 300 million embedded systems in medical, industrial automation, energy, and defense and aerospace markets. Founded in 1980, BlackBerry QNX is headquartered in Ottawa, Canada and was acquired by BlackBerry in 2010

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