

BlackBerry QNX Over the Air (OTA)

BlackBerry QNX Solutions



Remote software updates can look straightforward on a white board at first glance, but they can become much more complex when it comes to implementing them. Today's over-the-air (OTA) endpoints can include vehicles, robots or production line equipment in a factory, or medical devices used by patients or health care workers. OTA updates for complex systems like these can come with an increased risk of software bugs, security breaches and safety issues, along with the need to adhere to government or industry regulations, mandates and standards. Complex OTA updates call for specialized software expertise. BlackBerry® QNX® answers that call with a solution that is customized to seamlessly and securely update and manage your unique endpoints, while maximizing your investment in your existing cloud and infrastructure technologies.

Solution Highlights

BlackBerry QNX OTA is a modular and flexible solution for seamless software updates that helps you:

- protect your investments, enabling new updates without disrupting existing infrastructure or processes
- extend your OTA solution through a flexible architecture that lets you keep up with new requirements as your products evolve
- leverage field-proven BlackBerry security technologies, including BlackBerry Certicom® PKI and BlackBerry Jarvis™ binary static application security testing

How it Works

We work closely with your team to assess your existing infrastructure and technology environment, then we plan and design a solution that is tailored to your unique requirements. You may have varying updates for each unit within a fleet or product line, critical systems that need to adhere to rigorous safety or security standards, or existing infrastructure in place that you don't want to disrupt. We can help you address scenarios like these that can add complexity. We account for the many factors – both technical and process-related – that can come between you and a successful OTA update, mitigating risks throughout the development and implementation lifecycle.

We provide you with the software, infrastructure, tools and expert engineering services to ensure success in the planning, implementation and ongoing evolution of your OTA project.

Advantages of Working with BlackBerry QNX

With BlackBerry QNX as your partner, you have the assurance of working with the experts in delivering software solutions for some of the world's most complex and critical embedded systems.

Protects Your Technology Investments

Because different cloud and IT infrastructure don't often interoperate, out-of-the-box OTA solutions can be costly to adopt and rarely fit seamlessly with your existing technology. To address this, some OTA solutions require you to replace your existing infrastructure investments. BlackBerry QNX OTA lets you maintain investments in your existing technologies, including your authentication mechanisms, end-point management systems, cloud, software repository and communication protocols. It offers a tailored alternative to out-of-the box solutions so you can focus on innovation, not software updates and maintenance.

Customized for Your OTA Project

Because there's no one-size-fits-all solution for your unique OTA requirements, our solution builds on an initial framework to evolve with your requirements, and continually paves the way to new opportunities for your business. Our approach is modular, so you get a tailored solution that works for your unique update requirements. For example, you may need to deliver unique software updates to different endpoints, you may have special security requirements, or you might have legacy endpoint technology that you want to preserve. We can work with these scenarios and more, customizing a solution when your requirements aren't addressed by out-of-the-box solutions. BlackBerry QNX OTA is comprised of both device components and backend server components that can be hosted on Amazon Web Services (AWS) or the cloud provider of your choice.

Built on BlackBerry Security Technology

BlackBerry QNX OTA provides uncompromising protection against cybersecurity threats while updating devices. And to complement the security features of BlackBerry QNX OTA, BlackBerry Jarvis and BlackBerry Certicom provide industry-leading mechanisms to uniquely identify and authenticate both the source and target of your updates and ensure the security integrity of the software. The Certicom Asset Management uses cryptographic personalization during the component manufacturing process to establish a root of trust within your device, then its Public Key Infrastructure (PKI) technology ensures the authenticity of updates by issuing certified device identities to support component authentication and security applications when performing updates. BlackBerry Jarvis offers a binary static application security testing (SAST) platform that examines updated code for security vulnerabilities and software craftsmanship. Since BlackBerry Jarvis extracts the characteristics and attributes from compiled binaries, access to source code isn't required.

Solution Features

BlackBerry QNX OTA provides everything you need to start providing updates to your devices over the air.

It offers these features to ensure success at every stage of your OTA project:

Web portal: Provides a customized interface to manage, monitor and deliver software updates to devices.

Embedded client: Provides a lightweight library that communicates with the OTA server and interacts with the device's update/install components.

Security: Addresses evolving threats through authentication, identity management, vulnerability scanning and artificial intelligence.

Cloud-based: Pre-integrated with AWS, or can be implemented in the cloud platform of your choice.

Interoperability: Easily interoperates and integrates into OEM proprietary or third-party technologies.

Monetization opportunities: Lets you monetize vehicle or device connectivity through service activation and introduction of new service.

BlackBerry QNX Professional Services

Our professional services bring complex integration methods to your existing systems and new infrastructure. We can provide the services you need, when you need them, including these offerings:

Server-side integration:

Server-side integration with your cloud and IT infrastructure

Device-side integration:

Complete integration with your device software

Custom development:

Feature development to meet specific OTA requirements for immediate needs and evolving roadmap

Critical issue support:

24/7 on-call support to address for critical issues and ensure maximum uptime

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 175 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

For more information, visit blackberry.qnx.com and follow [@QNX_News](https://twitter.com/QNX_News).

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