

QNX SOFTWARE RELIES ON TEAMFORGE FOR RAPID APPLICATION DELIVERY WITH CONTINUOUS BUILDS AND SOCIAL DEVELOPMENT

COMPANY PROFILE

QNX Software Systems is a leading provider of powerful software platforms that enable the development of reliable, scalable and high performance applications. Its solutions are found in markets such as telecommunications, automotive, medical instrumentation, automation and security. Through its embedded market specialization and proven expertise, QNX has become a trusted partner to the world's largest device manufacturers and systems integrators including Audi, Cisco, General Electric, Lockheed Martin, Siemens and many others.

“Digital.ai solutions are easy to implement quickly and they are now the focal point of all of our collaborative global development and delivery efforts. Choosing TeamForge has proven to be one of the best business decisions we’ve made.”

Mike Lemke
Director of Engineering Operations
QNX Software Systems



WORLD CLASS CUSTOM SOFTWARE ENGINEERING

The original goal for QNX was to create a collaborative and highly responsive community with users and customers. All stakeholders were to gain early access to products and source code to facilitate rapid prototyping and more Agile, iterative product delivery. The solution needed to enable highly secure collaboration with partners and selected customers.

With many public and private development projects, and multiple daily builds accessed by a wide base of developers, QNX needed a scalable way to publish and deliver software binaries and underlying source code. The company required a highly interactive and collaborative development and continuous delivery environment. Sophisticated permission and access controls also were critical, to support both internal and external users.

“Our customers are very technical people, and the key initiative we had in mind was to give these outside developers early access to our products and our source code, and exchange ideas through forums, wikis and other collaborative tools to work faster and more efficiently,” said Jim Plantinga, Manager of Information Technology Services for QNX.

There had been some previous in-house point solutions at QNX, but they were difficult to integrate and didn't adequately facilitate the flexible environment needed by a community of sophisticated developers. The massive scope of QNX's projects, along with the requirements of daily builds and of single sign-on, integration and security, led QNX to search for a more Agile application lifecycle management solution.

"We set out to evaluate products that could do everything we needed out-of-the-box," explained Mike Lemke, QNX's Director of Engineering Operations. "In the end, TeamForge offered the best alternative and gave us all the collaborative tools we needed with the added ability to roll it out very rapidly."

EXPRESS IMPLEMENTATION

"We had a very short timeline to rollout a new collaboration framework," Plantinga added. "We wanted it finished in four months, and the option of building it ourselves with open source tools, which is what we had traditionally done in the past, was just not possible within that timeframe."

Once QNX committed to moving ahead with TeamForge, Digital.ai was able to help them launch a robust, global collaborative environment on schedule and within budget.

"If we had tried to integrate something like this in-house from a collection of open source tools, it would have taken a prohibitively long time at great expense, and it wouldn't have worked as cohesively as TeamForge."

Jim Plantinga
Manager of Information
Technology Services

"Digital.ai's support people were skilled and efficient during the entire implementation process," he said. "We had their system engineers on site for a few days, and we also worked with them remotely for several weeks. They really knew what they were doing, they knew the product well, and they were able to quickly accommodate us with customization to meet our precise needs. The front-line technical support was also excellent. Most of our questions were high level, and the support people were able to connect us to the proper engineering resources right away."

TRACEABLE, SOCIAL AND SCALABLE

Code is now committed daily against multiple projects supporting continuous integration and build processes. Through close integration between TeamForge and Hudson, binaries resulting from successful builds are automatically published on the TeamForge platform. TeamForge provided the key elements for the Continuous Integration & Delivery strategy at QNX, with file release management for binaries, code management via Subversion, and Hudson integration for build. This allows users to correlate binaries with underlying source code and social development with discussions and wikis.

"TeamForge is very effective, especially compared to other approaches where you have to figure out how to control the access, how to communicate and keep track all of the communications. In the past, we had lost some critical communications, but now we just tell people 'use the

[TeamForge] forum' and that's how we keep track of everything," Mike Lemke, Director of Engineering Operations for QNX, reported.

"With TeamForge, we now have fast and easy access to our development platform. We're collaborating with our customers and partners in an extremely Agile manner. As an example, when someone at QNX starts a new project with a new customer or partner, we can create a new TeamForge forum and begin collaborating almost immediately" Lemke said.

"The TeamForge platform is a great value. Everyone throughout our software development ecosystem has experienced improvements in their efficiency and productivity."

Jim Plantinga
Manager of Information
Technology Services

RELIABLE, FLEXIBLE SECURITY

"Another one of our major requirements was to have lots of flexibility in the security model," Plantinga explained. "We have some projects where we want to provide access to everybody for certain information, but at the same time, we also need to maintain a strong permission control structure. The security also had to accommodate internal projects that called for more rigorous access controls."

TeamForge has helped QNX develop and maintain an ecosystem with both high performance and ease of use that encourages customer participation within a secure, single sign-on environment.

"Our users can now monitor projects without having to open a browser and log onto our development site. If they wish, they can also receive message threads through email to keep them up to date on the progress of a through a smartphone. The TeamForge forums are an important enabler of our Agile development process," Plantinga shared.

TRANSFORMATION FOR SUCCESS

Four years after the initial implementation, QNX renewed its agreement with Digital.ai and continues to be a satisfied customer.

"Digital.ai has brought our company's global development community together in ways we never thought were possible." Lemke said. "Somewhere in the world, every minute of every day, hundreds of our developers, customers and partners are using TeamForge. It's an absolutely critical part of the core foundation of our business."

TeamForge's value to QNX is immeasurable, according to Plantinga.

"It's hard to put an ROI number on something so important and transformative to our engagements with our customers. TeamForge enables our community of partners and users to interact with our internal developers in real time from any location at any time of day. That represents a tremendous productivity boost for everyone involved."

REALIZED BUSINESS BENEFITS

- The entire global development process has become more Agile, more efficient and more productive, saving operational costs for QNX while helping improve the quality of its products, time to market, and bottom line profitability.
- QNX is able to work as a tighter unit on a global scale thanks to the useful tools and organizational capabilities of TeamForge.
- TeamForge gives QNX the greatest value for the money, greatly improving efficiency and enabling measurable improvements in product quality.
- TeamForge has become a cost efficient focal point for all of QNX's development efforts, including internal projects and others that involve third parties and partners.
- The ability to manage documents and communications on a wide spectrum of easily customized security settings enables development managers to better organize and operate their business units.

REALIZED USER BENEFITS

- Digital.ai created a flexible and powerful management system that delivered power, convenience and ease-of-use to both internal and external developers.
- When QNX developers need to collaborate they have an efficient, reliable, scalable solution that gives them all the tools that they require.
- QNX managers praise TeamForge's one menu bar, single integrated screen that allows users to browse from one component of a system to another and easily view all changes and revision information.
- Developers can monitor a project without having to open a separate browser, receiving forum threads via email and staying informed about all new development issues.
- The broad flexibility of the security model enables QNX to provide access to everybody for projects they want to share while limiting permissions for restricted content.
- Today, QNX is able to collaborate with their partners in an extremely Agile manner, rapidly establishing new project forums as needed in five minutes or less.
- TeamForge forums enable QNX to communicate with outside developers and customers in a cooperative group context rather than exchanging private emails.

DEPLOYMENT BENEFITS

- QNX had a very short time frame to implement a community collaboration solution, and Digital.ai helped them achieve that efficiently and cost effectively in four short months, substantially faster than if they tried to build it themselves.
- Digital.ai's very knowledgeable field system engineers were able to complete quick customizations to fulfill QNX's unique requirements.
- As TeamForge is enhanced and upgraded, QNX consistently gains new technology, new features and functions that make it easier for their global community to create and maintain consistently great solutions.