BlackBerry | QNX

QNX Everywhere

Grant Courville
Senior Vice President, Products & Strategy

Making Safe and Reliable Software to Meet Customer Needs and Expectations

Dynamically Changing Industry Demands and Expectations

- ✓ More compute and intelligence at the edge
- ✓ Software driven features and functionality
- ✓ Increasing safety and security requirements
- ✓ Incompatibilities between modern development techniques and certification and regulation methodologies
- ✓ Scalable software and hardware options
- ✓ Increasing customer demands and expectations

... Making it Increasingly Difficult to Build Reliable Software

- ✓ Increasing system complexity
- ✓ Reduced deployment timelines
- ✓ High demand for reliable integration
- ✓ Safety and security growing in importance
- ✓ Increased need for modularity and system upgradeability
- ✓ Lack of skilled embedded software development talent

Today: No Widespread Software Platform Adoption For Safe and Secure Embedded Software

✓ **Retrofitting a platform with reliability, safety, and security is way more difficult than expanding an ecosystem.**

Linux

Open platform	Ecosystem

- Not safe and secure by design
- Broader ecosystem

QNX

Hardened platform	Ecosystem

- Reliable, safe, and secure
- Smaller ecosystem

QNX Everywhere

Hardened, available platform	Ecosystem

- Reliable, safe, and secure
- Broader ecosystem

QNX Everywhere

QNX.
EVERYWHERE

New initiative to address the growing global demand for highly-skilled embedded systems developers.

- Significantly increase awareness and branding
- Expand number of QNX trained developers globally
- Broad and active developer ecosystem for key verticals
- Engage with many more global post-secondary institutions
- Create an active QNX global developer community

QNX Everywhere

Top Priorities:

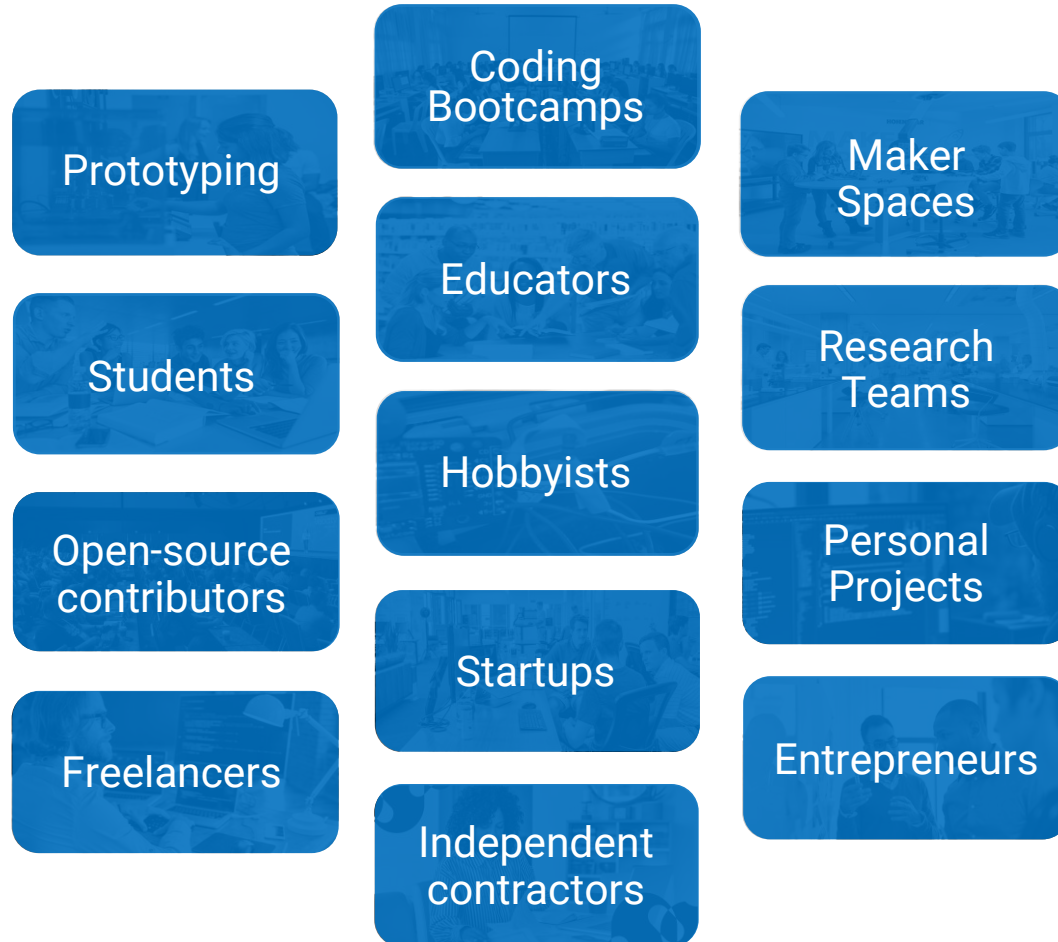✓ Make QNX more transparent and familiar to developers.

✓ Empower developers to build QNX-based software-defined products in both automotive and general embedded markets.

✓ Significantly broaden third-party participation in the QNX ecosystem, tools, solutions, integration, and training.

QNX Everywhere: Expand QNX Access to More Developers

Prototyping

Students

Open-source contributors

Freelancers

Coding Bootcamps

Educators

Hobbyists

Startups

Independent contractors

Maker Spaces
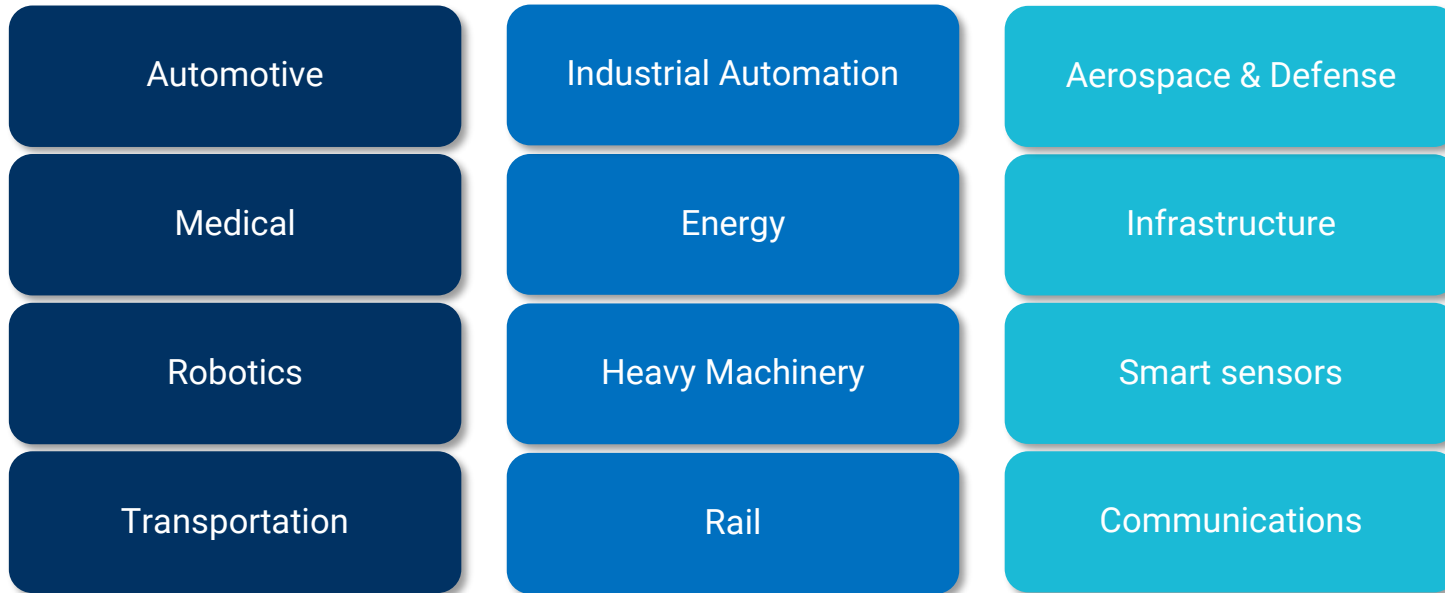
Research Teams

Personal Projects

Entrepreneurs

Goals

- Greater transparency and openness - product and organization
- Make it far easier for developers to access and build QNX-based systems
- Significantly increase the QNX ecosystem, tools, solutions, integration, and training.

Business Model

- Commercial licenses required for commercial use
- Freely available QNX SDP 8.0 for non-commercial use
- Exposure and access for millions of developers globally

QNX Everywhere:
Access Across Multiple Market Segments

Automotive	Industrial Automation	Aerospace & Defense
Medical	Energy	Infrastructure
Robotics	Heavy Machinery	Smart sensors
Transportation	Rail	Communications

QNX Everywhere will increase access to QNX SDP 8 software in current market segments and multiple growth segments.

Allows for friction-free non-commercial access and prototyping with QNX SDP 8 software.

All these areas share many commonalities, including a strong need for performance, reliability, safety, and security.

QNX Everywhere: Right Time, Right Now

Growing market needs

- A solution to growing system complexity
- Safe, secure, and reliable solutions
- A dependable way to mix certified and non-certified software
- Methods to scale development effort efficiently
- Better ways to leverage the cloud during development and deployment
- Common foundational software across safety- and non-safety critical systems
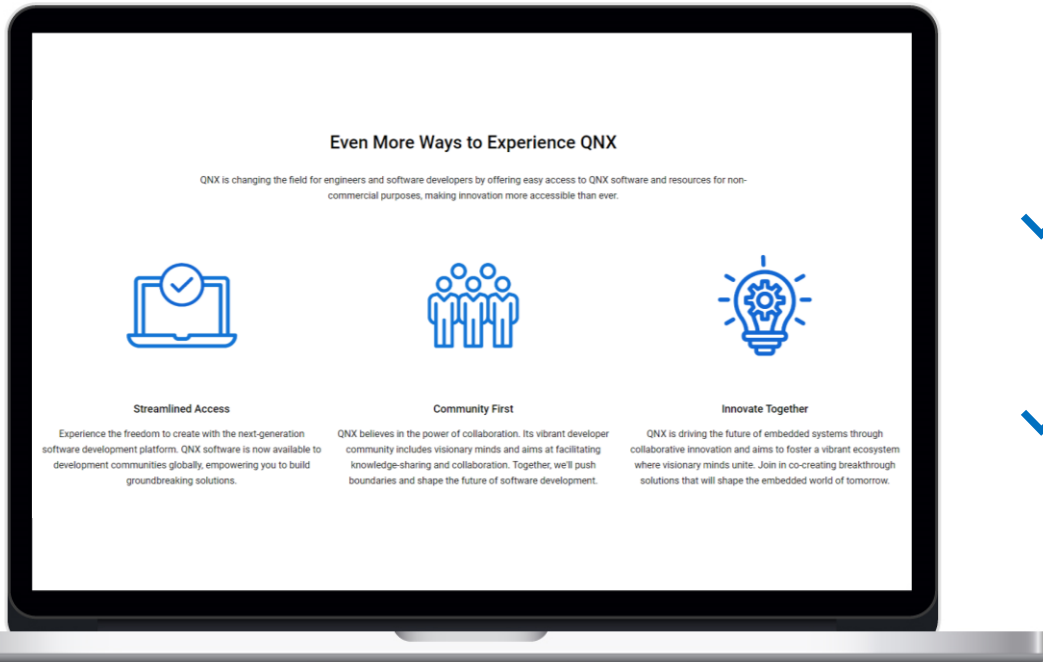
Growing market realization

- QNX products and people are trusted for critical products and company-defining projects
- Key software and hardware partners are eager to work closely with us more than ever
- The demand for QNX developers, tools, support, solutions, and training is has never been stronger
- Customers, are demanding that we grow a stronger developer ecosystem to help further expand their use of QNX across their enterprise
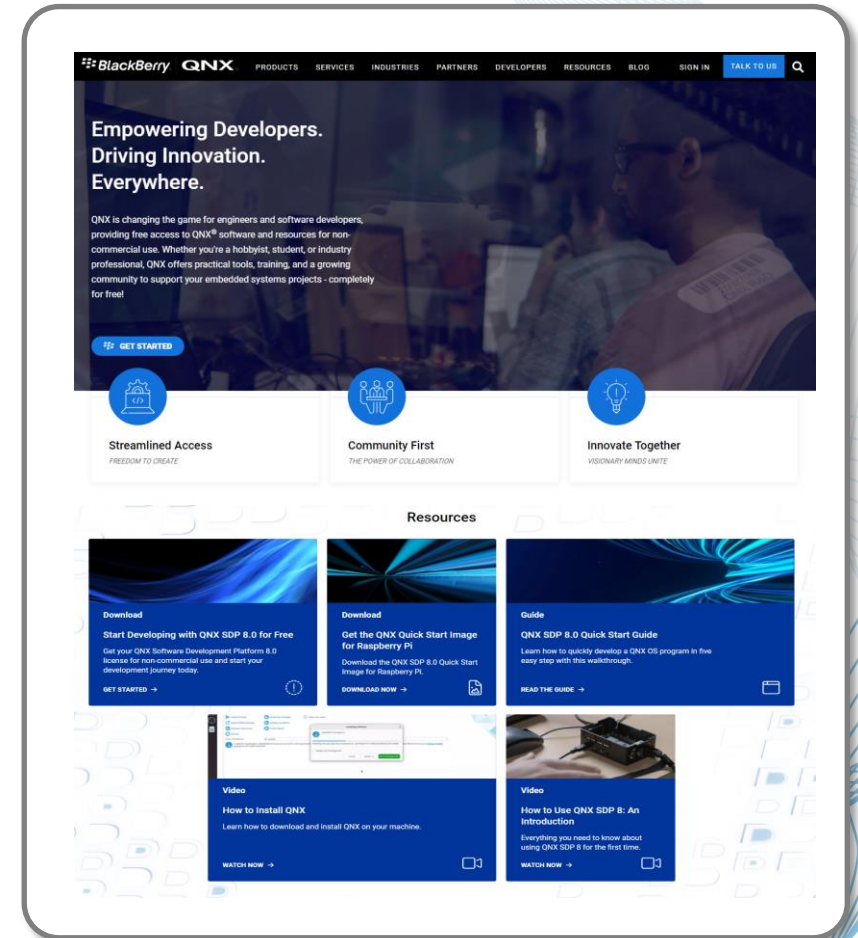
**The industry is realizing that QNX can help solve many industry challenges.
As a result, QNX momentum has never been higher.**

Friction-Free Access to QNX Software to Build Momentum for Change…

**Empowering Developers.
Driving Innovation.
Everywhere.**

✓ New QNX Everywhere landing page enables seamless application and approval of development software for students, hobbyists, and non-commercial use.

✓ Engineering-led tutorials and how-to videos for developers.

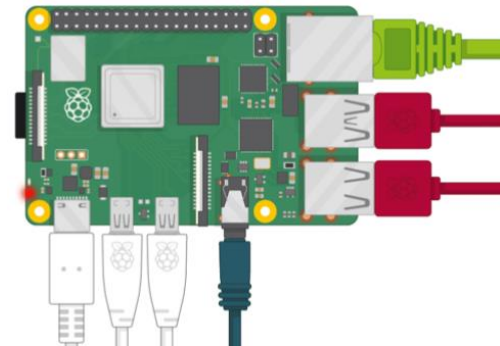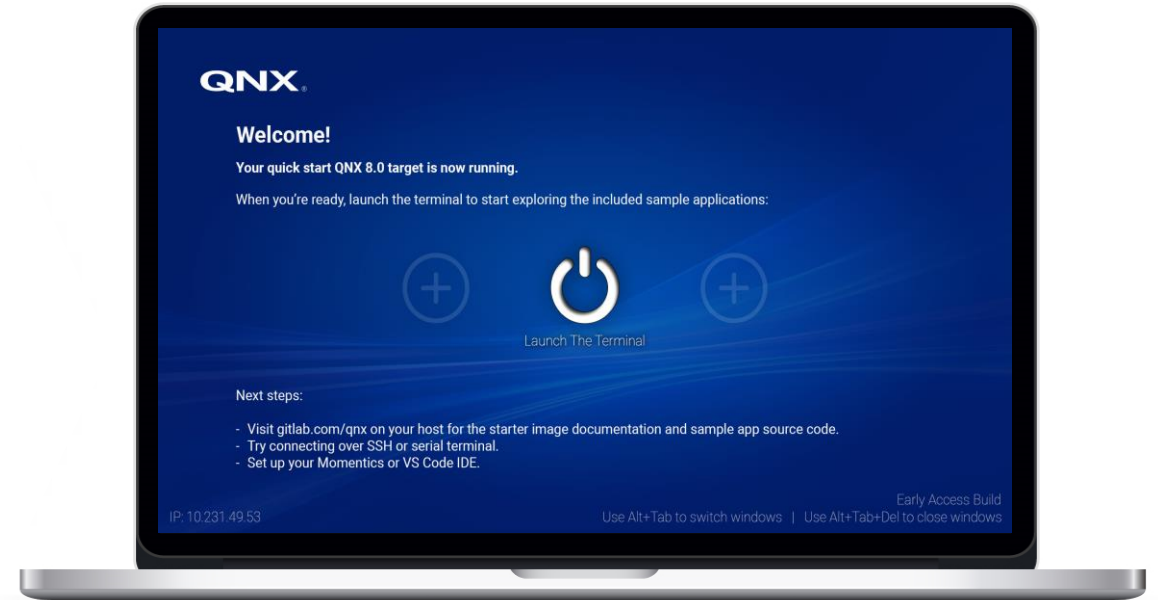✓ Active engagement with the GitLab communities and developer outreach.

QNX Everywhere: Developer Quick Start Target System Image

Prebuilt Raspberry Pi target system image based on QNX 8 including:

- ✓ QNX 8 OS
- ✓ Window manager (startup launcher)
- ✓ Terminal with a shell
- ✓ OpenGL rendering applications
- ✓ Vkcube (Vulkan based graphics demo)
- ✓ Touch Screen support
- ✓ Camera support
- ✓ Wired and Wifi networking support
- ✓ USB, Storage, GPIO (general purpose input/output), …

…Plus a growing list of ported and optimized source code

- ✓ GTK4+ UI toolkit, ROS2 Humble, Fast-DDS, Boost, MQTT, Tensorflow-lite, libtorch, Armcomputelib, OpenCV, Lighttpd, …
- ✓ Growing number of public gitlab projects

QNX Everywhere: A Multi-Year Journey

Near Term	Mid Term	Longer Term

Near Term
- ✓ Easy web-access to QNX SDP 8 development software for non-commercial use at no charge
- ✓ Dedicated web pages for quick and easy access to QNX software
- ✓ Developer Quick Start configuration and target system software
- ✓ QNX SDP 8 developer pre-built target system software for Raspberry Pi hardware
- ✓ QNX gitlab project for easy access
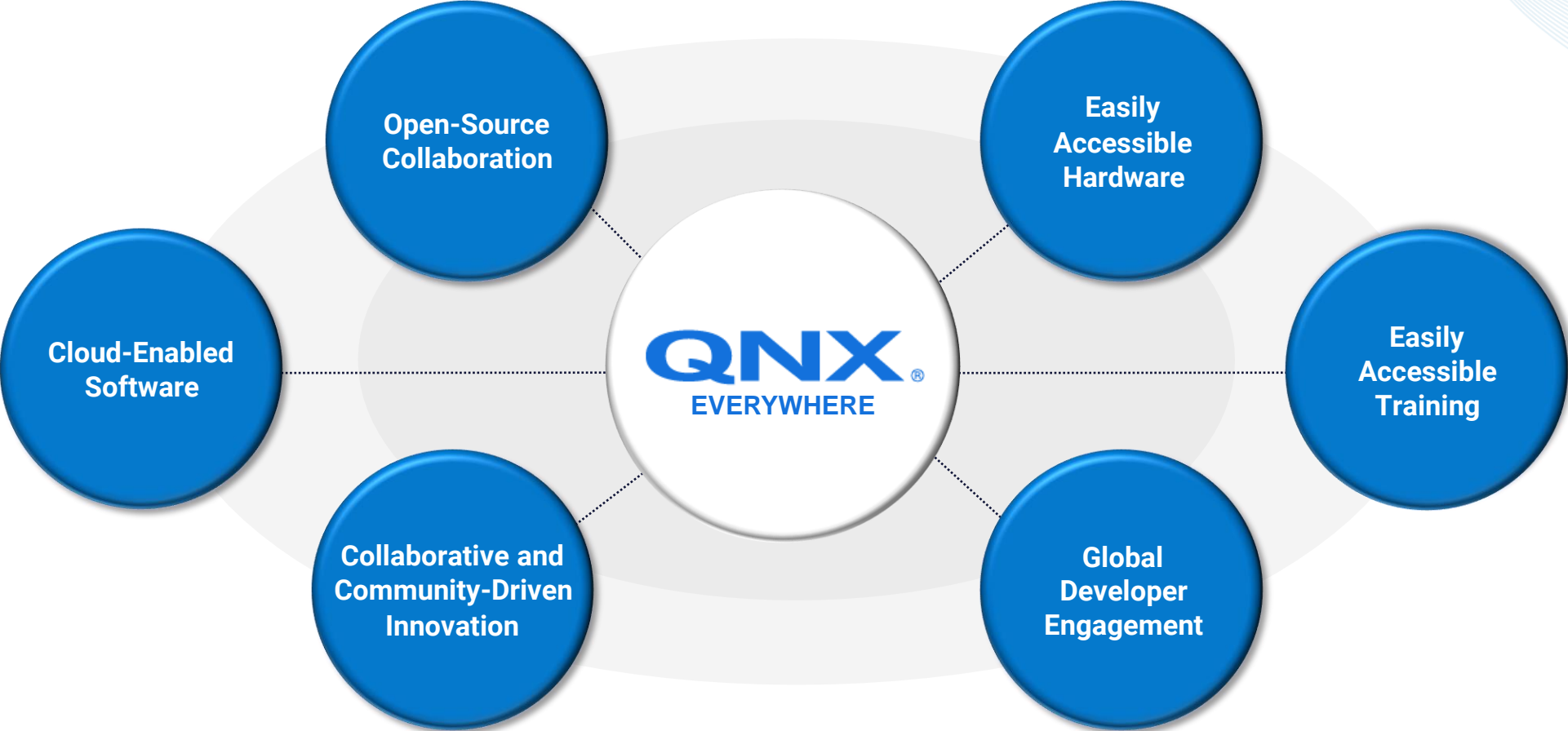- ✓ Key open-source ports optimized and easily available for QNX

Mid Term
- ✓ Increase marketing and awareness campaign
- ✓ Augment developer relations outreach and community engagement
- ✓ Developer Quick Start configuration and target system software for cloud
- ✓ Linux porting guide(s)
- ✓ Self-paced online training
- ✓ Additional how-to videos, developer tools and demos
- ✓ Device driver development kits (DDKs)

Longer Term
- ✓ Global developer events
- ✓ More self-paced online training and how-to content
- ✓ Increased availability of QNX product source code
- ✓ Global educational program contributions and engagement
- ✓ More optimized open-source ports and pre-built software packages
- ✓ More developer Quick Start software, videos, tutorials and community engagement – embedded and cloud

QNX Everywhere: Empowering the Developer Community

Open-Source
Collaboration

Easily
Accessible
Hardware

Cloud-Enabled
Software

QNX®
EVERYWHERE

Easily
Accessible
Training

Collaborative and
Community-Driven
Innovation

Global
Developer
Engagement

QNX™ Everywhere

It all starts here –
Easy non-commercial access to trusted, proven, future-ready
Foundational Software for Embedded Systems

Thank you

QNX Everywhere: Increase Transparency

Increasing Transparency

✓ Transparent business model from commercial to non-commercial use to enable all forms of development.

✓ Transparent software model including available source code, more flexible licensing terms, and community-based development support.

ADVOCATE

ACTIVATE

ADOPT

ADORE

Champions

Evaluators

Beginners

Skilled coders

QNX® EVERYWHERE