Instant Device Activation

Fast boot functionality for your unique environment – response requirements for critical functionality in less than 50 ms.

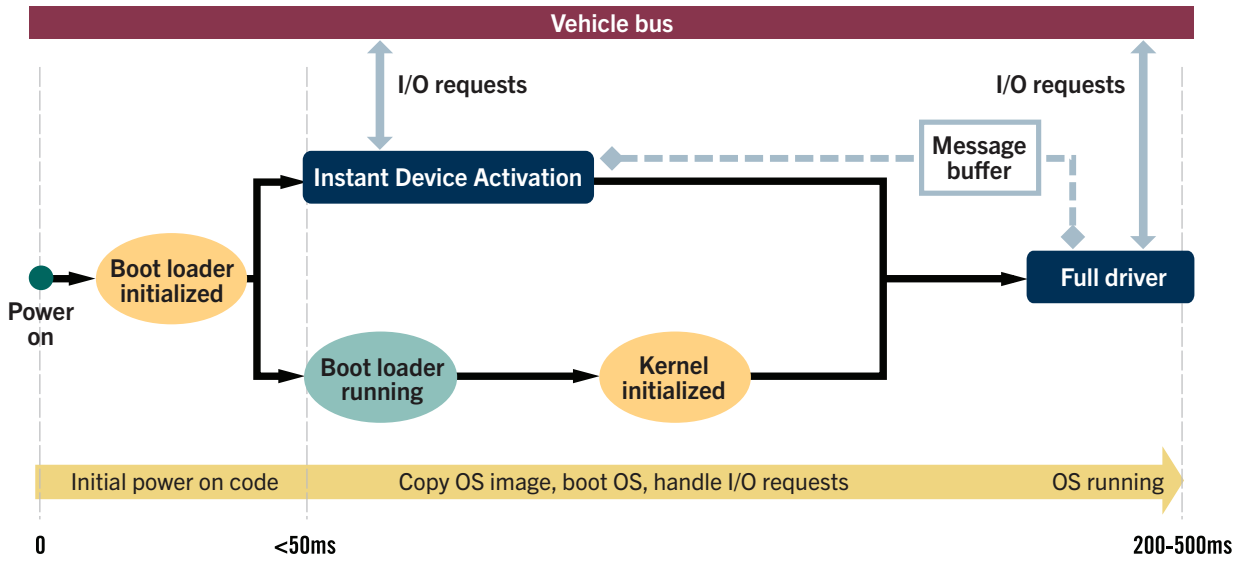
Solution highlights

- Meet boot response and functionality requirements in less than 50 ms
- Eliminate auxiliary communications processors that can drive up product costs
- Deliver customized solutions for your application and hardware platform
- Accelerate product delivery with QNX engineering services and productivity tools
  - Modified boot loaders allows a driver handler function to execute driver code prior to full system initialization
  - Sample serial boot functionality in source for reference and testing during the development process
  - API libraries and documentation, as well as an IDA architecture guide

Deliver critical functionality

Deploy in-vehicle systems that can perform intelligently even before your system is fully operational. Since Instant Device Activation (IDA) code is directly linked into the startup component of the boot loader, it can perform necessary functions such as respond to external events, meet critical response times, access hardware, and store data for use by the full driver. For example, your system can be configured to provide immediate response to power mode management transmitted over the CAN bus.

Once control is transitioned to the full driver process, the IDA code (also called a 'mini-driver') can continue to run or exit the system seamlessly — without causing blackout times or losing any data.



QNX IDA technology makes it possible to achieve critical functionality, such as responding to events, meeting response requirements, and accessing hardware, in less than 50 ms. Once control is transitioned to the full driver process, IDA technology can continue to run or exit – without blackout times or data loss.

Reduce hardware costs

Manage data from buses such as MOST and CAN without adding costly hardware. Conventional OS implementations often take several hundred milliseconds or even seconds to boot up from a cold or low-power state, requiring auxiliary communications processors to meet timing and response requirements. Using advanced QNX IDA technology, you can solve the problem through an equivalent software solution — potentially decreasing bill-of-materials costs by up to $8 per unit.

Customize your application

Design custom boot functionality to meet your system requirements. QNX IDA technology provides full source and documentation for easy configuration. For example, you can adapt the standard polling intervals to meet your device timing requirements and define the amount of data you want stored in the IDA buffer.

You can also design your optimal driver transition model, since the QNX process-driven architecture makes it possible to specify when you want the full driver process to take over.

Accelerate product delivery

Work with a company that knows how to support large automotive suppliers. We offer the solutions to get your products to market quickly, including dedicated engineering services such as architectural consulting, custom IDA development, and ports to custom hardware. You can also take advantage of integrated development tools, training, and expert technical support designed to fit your product life cycle.

Foundry27

This community portal for QNX developers provides software updates, board support packages, drivers, forums, and wikis. Whether developers want to discuss ideas, post questions or answers about developing with QNX, or download drivers for the latest hardware, Foundry27 offers the resources required.

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