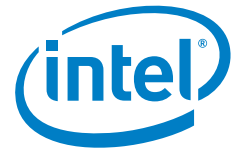


Solution Brief

Intel® Edge Cloud Software Development Kit (SDK)
Wireless Access Applications



Intel® Edge Cloud Software Development Kit

Accelerate Solution Development for the Intelligent Network



Unlock the Promise of the Intelligent Network

Mobile consumers continue to seek new services and demand greater experiences on their smartphones, tablets, and PCs, increasing bandwidth pressure on service provider networks. By implementing a network of “smart” cells, many nodes at the edge of the network can collaborate with each other to deliver services and optimize the user experience while managing the precious spectrum assets of the service provider—delivering on the promise of the Intelligent Network. These smart cells require innovative applications and scalable computing at the edge of the network that can be monetized easily and delivered quickly.

The Intel® Edge Cloud Software Development Kit (SDK) enables software developers to quickly conceptualize, create, optimize, and test innovative and reliable solutions that demonstrate the Intelligent Network to their customers. The Intel® Edge Cloud SDK helps developers deliver code—ready to run—for open standards-based, scalable computing systems built on Intel® Architecture that can be quickly deployed to the network edge.



An Entire Development Environment to Accelerate Time to Solution

The Intel® Edge Cloud SDK offers a ready-to-use development environment with computing, software, development, analysis and debug/trace tools, documentation, and extensive ecosystem support for prototyping a wide range of smart cell deployments. A series of Intel Edge Cloud SDKs with single- to multi-socket options offers developers an environment for creating flexible and scalable software solutions for a variety of usages that will run on enterprise-class Intel® processors.

Usages include:

- Dual-mode (LTE/WCDMA) or triple-mode (LTE/WCDMA/Wi-Fi*) small cell base station using Intel® Atom™ processor C2000
- Cloud RAN and macro cell applications utilizing Intel® Xeon® processors
- Enterprise small cell aggregators based on Intel® Atom™ processors, Intel® Core™ processors and Intel Xeon processors
- Pico cell with Intel Atom processor
- Internet of Things (IOT) Gateways using Intel Atom processors and Intel Core processors

The series of Intel Edge Cloud SDKs allows developers to accelerate their application and system designs, and optimize their code, for the best Intel Architecture-based computing solutions.

Benefits

Complete development platform	A complete development platform with software, development tools, documentation, and rich ecosystem support to demonstrate smart cell solutions.
Reduced time-to-market and project risk	Developers can quickly tailor the prototype to meet network requirements, and then evaluate it with their core network without having to wait for new products to be designed, built, and tested.
Flexibility, scalability, and interoperability	The development environment uses open standards-based hardware, open source software, and IA optimization tools, enabling applications to be developed for a wide range of computing platforms instead of proprietary systems.
Real-time determinism and extreme low-latency virtual machine operation	Performance-optimized, open source virtualization software from Wind River* comes pre-loaded on the SDK.
Content caching, quality-of-service management, security, and additional rich capabilities available	Support and software from Intel and Intel® Network Builders ecosystem collaborators, including IneoQuest*, Saguna*, McAfee*, Radisys*, and Aricent*.
Configurations to meet any need	Multiple configurable options for memory, with up to 1600 MT/s, one or two DIMMs per channel (up to two channels), and optional Error Correcting Code (ECC) memory.
Integrated Intel® QuickAssist Technology	Provides hardware acceleration to help improve cryptographic performance.
Reliable wireless access applications	Included in the SDK are application and system-level analysis and debug/trace tools from Intel that enable fast, thorough testing and tuning of key wireless access software building blocks.
Supported	The SDK comes with base-level support from Intel and Wind River.

Included Software

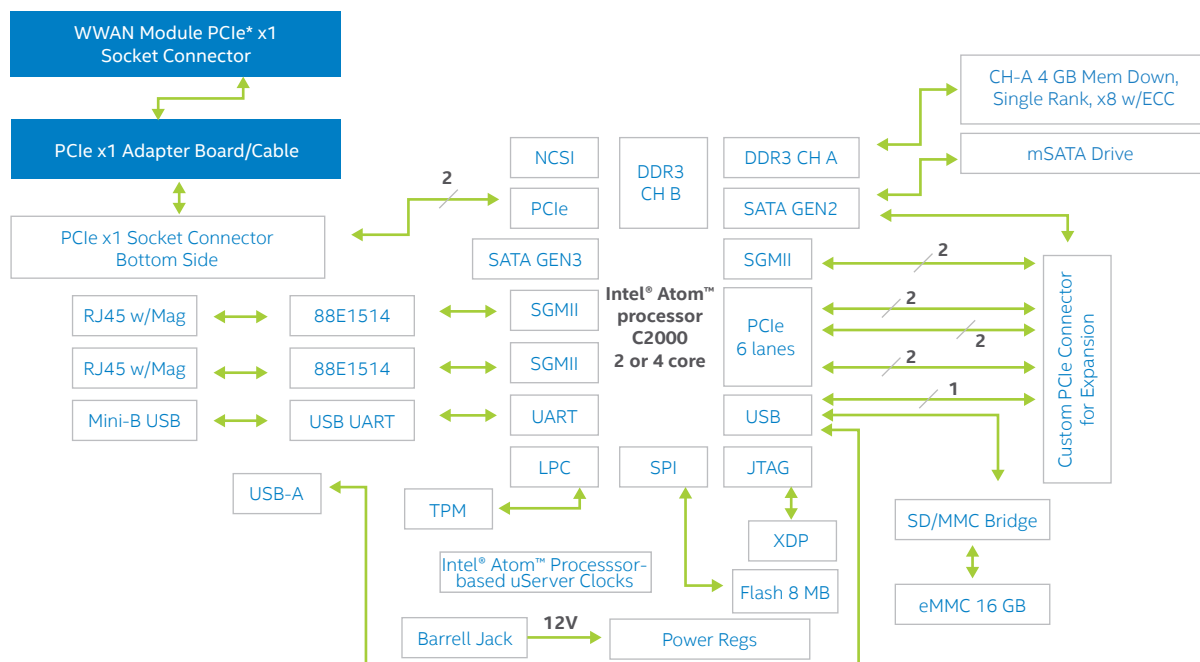
As a complete, integrated development system, the Intel Edge Cloud SDK includes key software packages, and may be paired with additional software, to help accelerate solutions for real-time, embedded, and virtualized operating environments.

- **Intel® System Studio** – integrated software development tools to facilitate fast product development, performance optimization, and code debugging of real-time wireless communications systems and applications on Intel architecture. Integrated into Wind River Workbench*, build environment, and operating system deployment.
- **Wind River Open Virtualization Profile*¹** – provides the real-time determinism, performance, scalability, and flexibility to work across networking product lines.
- **Wind River Linux*¹** – includes Yocto-based Linux* with tools and comprehensive build system.
- **Wind River On-Board Embedded Development Kit*¹** – ideally suited for developers that wish to develop graphics applications, as well as for those developers that wish to run multiple applications using the on-board hypervisor technology.
- **Wind River Workbench IDE*¹** – an integrated development environment to accelerate the development of embedded solutions.
- **Getting Started Guide** – complete documentation to accelerate out of the application development using Wind River Open Virtualization Profile.

Reliable Architecture

The Intel Edge Cloud SDK comes equipped with the Intel® SSD in mSATA form factor, delivering ruggedness and high reliability with 1.2 million hours MTBF and fast I/O SATA interface speeds in a small form factor. You won't have to worry about drops or hits. The Intel SSD in mSATA form factor also utilizes the SATA Gen 3 interface, which delivers great performance in a footprint that utilizes less than a quarter of the space that traditional 2.5-inch storage form factors require.

Intel® Atom™ processor-based SDK Architecture
(Features of other Intel® processor-based SDKs are similar.)



How to Order

With the Intel® Edge Cloud SDK, Intel, Wind River, and an extensive ecosystem enable a transformation for telecommunications built on open standards-compliant computing; industry-standard, trusted software; and wide ecosystem support. Start building innovative solutions for the Intelligent Network using the Intel Edge Cloud SDK by ordering² from your local Intel representative or visit <https://networkbuilders.intel.com/edgecloudsdk>.

To learn more about Intel solutions for small smart cells and the heterogeneous mobile access network, please visit www.intel.com/wirelessaccess.



WIND RIVER

¹ Wind River software is provided with a 90-day evaluation license.

² Available Q4, 2014. This SDK may be ordered through Intel distributors.

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