Carrier Grade Linux for Wireless and 5G
MontaVista® CGX offers flexible, reliable and secure system software for next-gen networks

5G Demands - Higher capacity, lowest latency and more consistent experience.

CGX is integral in devices that control how networks are created and behave. This is important because the next generation 5G networks are not only a new radio but also a framework to deliver 5G applications that require omnipresent scalable service delivery with highest reliability and performance.

Flexibility
Scalable Service Delivery for both Broadband & Machine type

Reliability
Always ON with remote serviceability & upgrade

Security
Secure boot, Secure firmware upgrades & Secure data storage

Benefits
5G ready: Virtualization and adv. Data-plane accel. support
CGL: Ease of development using packaged tooling and platform
Real-time: Enabling time critical data processing and control equipment
Security: CGL-level hardening, timely CVE fixing
Expertise: Years of embedded platform expertise, translating technology to medical use-cases

MontaVista® Linux® Carrier Grade eXpress (CGX), offers system software that is:

Flexible: 5G network will be characterized by a much higher native flexibility and programmability for all non-radio network segments including SDN, NFV And IoT Networks.

Reliable: YoctoTM based (CGL) Linux solution with precertified Linux BSP (Board Support Packages) on the latest and greatest hardware from our SOC partners. Additional profiles for Virtualization and Data-Path.

Secure: MontaVista CGX includes security features as a part of the foundation profile. CGX meets the demands of the interconnected intelligent devices, providing application portability, dynamic configuration, field maintenance, and real-time performance in a single platform.

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Key Features Highlights

*Carrier Grade Linux
A set of specifications which detail standards of availability, scalability, manageability, and service response characteristics which must be met in order for Linux kernel-based operating system to be considered ‘carrier grade’.

Low Latency and bandwidth Content Caching
Heterogeneous Network Convergence
Radio & BBU separation
Network Slicing

*Carrier Grade Linux
Montavista Carrier Grade Express (CGX) is designed to meet the consideration for both 5G access and core networks.

- Low latency and bandwidth
  - Real-time OS
  - Extensive capabilities to optimize for FPGA/

- Content caching
  - Docker and containers + KVM Support
  - Expertise on container technology since 2007

- Heterogeneous network convergence
  - CGX can offer a solution for all designers: IoT Gateway, 5G base station and Edge Data Center
  - Advanced capabilities for interface configuration and control communication between nodes

- Radio and baseband separation
  - CNAN demos and prototypes since 2014
  - 3rd generation product to be used for CNAN Rv1 and BBU Operating System part

- Network slicing
  - Containerized radio stack and core handling, support for KVM, Docker, LXC
  - Rich and services capabilities to customize Network, Storage and Computer Virtualization and Orchestration
  - Access custom ARM and all CPU architectures

MontaVista® CGX is designed for versatility. As an embedded Linux solution it helps developers deliver next generation devices ranging from core networking devices to IoT Gateways. MontaVista CGX profiles provide flexible building blocks that reduce development time, effort and risk.

Poc Demonstration Setup: 5G Software Architecture Using CGX
About MontaVista Software

MontaVista Software is a leader in embedded Linux commercialization. For 20 years, MontaVista has been helping embedded developers get the most out of open source by adding commercial quality, integration, hardware enablement, expert support, and the resources of the MontaVista development community.