



Introducing a New Platform to Accelerate Edge Innovation

Streamline your path to low-TCO edge solutions with the Intel® Tiber™ Edge Platform

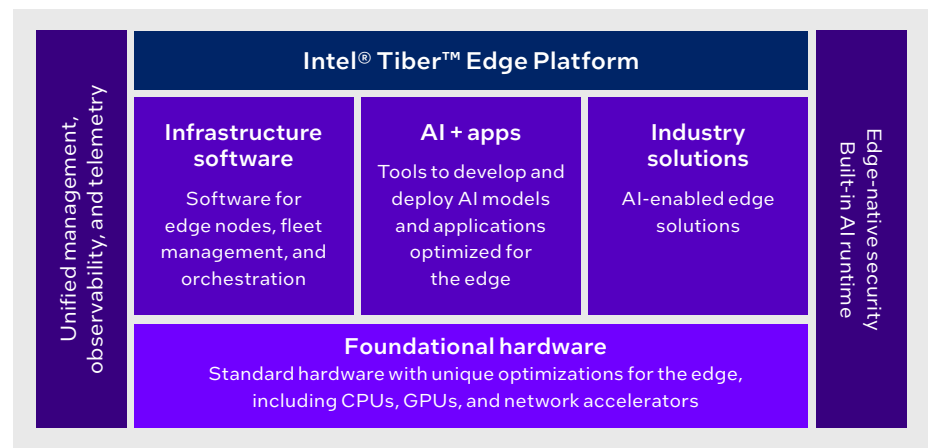
How you can use the platform

In combination with our robust partner ecosystem, the Intel® Tiber™ Edge Platform supports today's most critical edge and edge AI use cases, including:

- **Defect detection:** Leverage integrated support for the OpenVINO™ toolkit to easily enable accurate, high-performance computer vision and inferencing on your plant floor.
- **Retail automation:** Streamline operations and enhance the customer experience by using built-in capabilities to enhance key areas such as checkout, inventory processes, and logistics through AI.
- **Private 5G:** Take advantage of integrated support for Intel's FlexRAN™ software to build and deploy highly optimized, feature-rich 4G and 5G scalable cloud-native RAN solutions.
- **Smart cities:** Support distributed infrastructure, including AI-enabled cameras, spread out across a vast physical area for applications such as intersection monitoring.
- **Inventory management:** Deliver real-time, AI-enhanced inventory management capabilities for warehousing and retail use cases.
- **Asset tracking:** Enable intelligent solutions that can monitor asset status in real time in industrial environments.

From development to deployment and management, overcome the complexity that's holding your edge initiatives back.

The Intel® Tiber™ Edge Platform, a new edge-native commercial software platform, enables your organization to build, deploy, run, manage, and scale edge and AI solutions on standard hardware with cloud-like agility.



Get everything you need to securely build, deploy, run, and manage at scale

Edge solutions are essential in reducing costs, improving productivity, increasing resilience, and a host of other high-priority business objectives. However, many enterprises find that their efforts stall out as they're faced with complex development and deployment challenges, including:

- Managing massive numbers of edge-node devices such as human machine interfaces (HMIs), industrial PCs, and smart cameras spread out across sites and geographies
- Developing the right application for their business needs and meeting performance requirements with legacy infrastructure
- Securely and cost-effectively utilizing high data volumes for edge AI applications
- Meeting stringent requirements for latency, small footprint size, and connectivity

AI both increases the potential of these new edge use cases and amplifies the degree of difficulty—introducing challenges such as securing sensitive data in the public cloud, upgrading infrastructure to support costly specialty hardware, ensuring quality-of-service requirements, and optimizing application performance in dynamic operating conditions.

Our software platform enables your organization to overcome these challenges and dramatically shorten the path to ROI from your intelligent edge solutions. It offers a complete end-to-end platform and critical optimizations. Rather than relying on specialized hardware, the Intel® Tiber™ Edge Platform supports diverse architectures, accelerators, and third-party applications—including existing brownfield components—to preserve your previous investments and avoid rip and replace. The platform also dramatically streamlines AI-enabled solutions with tools for model development, optimizations for deployment, and support for the whole application lifecycle.

Using this new platform, your organization can expedite your journey from prototype to production with:

- **Integrated development environments with robust AI support**, including prebuilt components, AI models that are ready for deployment or customization, and application development options
- **Built-in capabilities for deploying workloads on heterogeneous greenfield and brownfield components**, so you can make full use of existing edge investments and lower your total cost of ownership
- **Support for custom edge-to-cloud hybrid AI implementations** that handle data more efficiently
- **Accelerated AI inferencing** with compelling application performance tuned for a wide spectrum of edge hardware
- **Deployment orchestration and automation** that helps you roll out and update applications and configure infrastructure nodes across all of your edge locations from a single pane of glass
- **Ongoing management and visibility features** leveraging deep hardware-aware telemetry that help you maintain optimum performance and enable self-healing and self-optimizing capabilities
- **Deep-root security capabilities** that enable zero trust onboarding and offer enhanced security—all the way down to the hardware level

Take advantage of powerful components for intelligent edge

With this platform, we're bringing the full power of Intel's edge experience and expertise to your enterprise. Our new Edge Platform comes equipped with proven Intel® technology investments that move from proof of concept to production, including the following software.

Infrastructure management

Enable IT and DevOps personnel to provision, onboard, and manage a fleet of edge nodes—including AI boxes, industrial controls, HMI devices, smart cameras, POS systems, and more—securely and remotely.

A modular and edge-native software stack for edge nodes supports computing, networking, security, and more. This stack can be customized to extract maximum value from your hardware components and can be optimized for edge and hybrid implementations.

AI and application development

The platform provides enterprise developers with powerful applications and platforms such as:

- **Edge Developer Toolbox** components for edge-native AI application and model development
- **Intel® Geti™ platform**, which helps facilitate model training for AI computer vision with a streamlined interface that's easy for non-data scientists to use
- **Built-in OpenVINO™ AI Runtime**, specially optimized for low latency and low power use, which enables standard hardware already deployed at the edge to run AI applications efficiently

Industry solutions

The platform includes AI-enabled edge solutions optimized for verticals and use cases, such as:

- **Intel® Edge Insights System** to manage, operate, and deploy AI at the edge
- **Integrated data management and ingest for time series and video data**, enabling industrial use cases such as defect detection and predictive analytics for manufacturing, energy, and beyond

Solve edge challenges across the device and application lifecycle

With the Intel® Tiber™ Edge Platform, you can build working solutions that connect and optimize for maximum performance. It's designed to accelerate every phase of the solution development and AI lifecycle—from building your application, to deploying it across all your edge nodes, to optimizing and updating as part of your continuous operations. The platform supports a range of hardware architectures, model repositories, and edge AI model training platforms to help streamline your edge journey.



Accelerate application and solution development

Make the journey from prototype to production a shorter one. Speed up ROI with a set of software building blocks, toolkits, pretrained AI models, and reference solutions that unlock quick progress on your AI and application development journey.

With application development environments, our platform allows your developers to work in whatever way suits them best. Teams will have the option to upload their existing containerized apps, AI models, datasets, and solutions, or start building from scratch. You can also optimize existing apps for the edge—even if they're cloud-native.

The Intel® Tiber™ Edge Platform also includes the Intel® Geti™ platform—innovative software that allows non-data scientists to easily help train AI models for computer vision. Using the Intel® Geti™ platform eases laborious data labeling, model training, and optimization tasks across the AI model development process, empowering teams to produce custom AI models at scale. Plus, integration with our **Intel® Tiber™ Developer Cloud** testing sandbox helps developers quickly try out new hardware configurations and right-size your hardware investment.



Streamline deployment and leverage existing investments

Scale your application across every node seamlessly. Remove barriers to optimized application deployment—including AI-enabled use cases—across your edge nodes with hardware-aware telemetry and tools that allow you to tackle challenging requirements such as performance and latency, all while you easily support MLOps for ongoing model updates.

Our new platform allows you to securely onboard and manage fleets of edge nodes more efficiently and with lower TCO. It supports diverse architectures and applications and enables new solutions on greenfield or brownfield components. Dynamic workload placement based on policies helps you achieve optimized performance and meet overall solution performance expectations. The platform can automate cluster orchestration to centralize control and meet application requirements.

Using this new offering, you can easily take advantage of built-in OpenVINO™ AI Runtime optimizations that enable efficient inferencing on a wide spectrum of edge hardware. With a write-once, deploy-anywhere approach, OpenVINO™ toolkit helps you meet stringent deployment demands on a wider range of heterogeneous hardware.



Manage everything from a single pane of glass

Keep things optimized with less effort. From day 0 through days 1 and 2, the Intel® Tiber™ Edge Platform offers streamlined solution management and enables custom edge and hybrid implementations. Deep telemetry enables policy-based lifecycle management for distributed edge infrastructure and gives you a cloud-like, single-pane-of-glass view of your deployments.

The Intel® Tiber™ Edge Platform also offers dynamic application deployment and eases operations with zero-touch, policy-based provisioning, orchestration, and lifecycle management for both infrastructure and applications. Using the platform, you can reduce the time required to protect and manage edge applications with streamlined security configuration and application lifecycle support.



Enable deep-root security from end to end

Security is a top-of-mind concern for distributed, edge-to-cloud applications. To help safeguard your solution, our platform provides full access to a rich toolset that helps you protect data with consistent, hardened edge security measures, including:

- Full disk encryption
- Local attestation
- Bot management

Now's the time to innovate at the edge

Edge use cases are evolving and improving every day. Business leaders know the pressure is on to transform their operations and revolutionize their businesses through distributed intelligence, real-time insights, and AI-enhanced capabilities. The Intel® Tiber™ Edge Platform is designed to streamline your edge efforts across the entire solution development lifecycle and shorten your path to ROI.

Built by Intel. Supercharged by our partners.

With a focus on openness and interoperability, the Intel® Tiber™ Edge Platform seamlessly integrates with solutions from our diverse partner ecosystem. You can take advantage of these integrations—and many more—to easily enable new capabilities for your edge solutions.

To learn more about our platform partners, visit intel.com/edgeplatform or reach out to your Intel representative.

Next steps

Find out more about the Intel® Tiber™ Edge Platform:

intel.com/edgeplatform

Learn more about resources for developers:

intel.com/content/www/us/en/developer/topic-technology/edge-5g/edge-platform/overview.html

Or contact your Intel representative to request a platform demo and get started.



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