

# Cisco Ultra Cloud Core

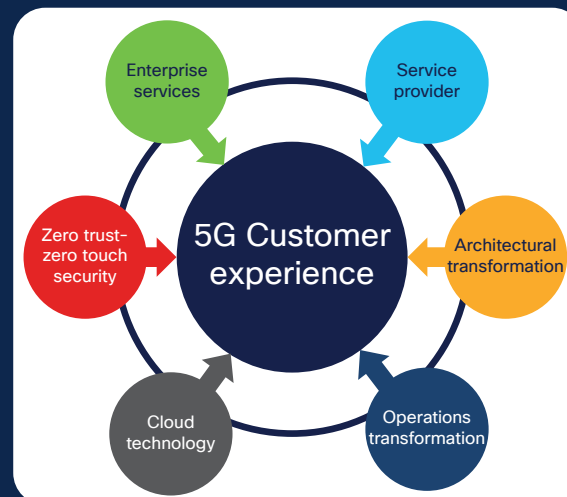
## Redefine your economics – connecting more people to more places and things

Cisco® Ultra Cloud Core is a Kubernetes-based solution that provides a common execution environment for Cisco's container-based 5G applications. This cloud-native platform is designed to meet the high-security and high-availability requirements of service provider networks. Additionally, it is designed for distributed architectures, enabling multicloud and edge services at massive scale.

Using the Cisco Ultra Cloud Core, Cisco 5G applications are enabled with:

- Advanced analytics and advanced infrastructure health checks
- Simplified and low-risk methods to introduce new 5G services, new configurations, and upgrades
- Automated deployment and automated testing as part of a CI/CD workflow
- Consistent technology and software components across all Cisco 5G applications

Service providers who use the Cisco Ultra Cloud Core can benefit with faster time to market for new services, easier and automated deployments and upgrades, and overall lower operational costs.



## Benefits

- Faster time to revenue (up to 90% faster) with Intelligent Services Mesh and Common Execution Environment.
- Simplify what was complex through Cisco Crosswork™ automation and our release operations framework.
- Achieve greater visibility by integrating Application Dynamics and open tracing.

**“This was a significant undertaking for us, shifting from a centralized to a distributed core architecture across our footprint, and we couldn’t have achieved that without virtualization. This means we can further our 5G plans with more flexibility and agility to deliver new services to our customers.”**

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## Integrated intelligent service mesh functionality

Cisco Ultra Cloud Core provides an intelligent service mesh that connects all services in the platform. This service mesh allows granular control of traffic flows within the Cisco Ultra Cloud Core based on message attributes or subscriber details. New or upgraded services can run concurrently in the platform alongside existing services, and the service mesh controls which messages are directed to the new service. Per-service telemetry is available to compare and evaluate the success of the new service. As a result, rollouts and upgrades are low risk and can be entirely automated – removing the human element.

### Unique benefits:

- Reduce risks from introducing software upgrades or new services
- Faster time to market and revenue (up to 90% faster)
- Greater control to introduce and deliver services where and when you want

## A high performance 5G core

Cisco’s cloud-native mobile core creates benefits in three key areas:

- Speed time to revenue with CI/CD workflows. Implementation of services can be reduced to four minutes versus four hours, resulting in an 80 percent or greater improvement in OpEx. For example, VNFs are deployed 18 times faster with containers.
- Microservice architectures. Microservices enable agility in the release of new features, and when combined with a CI/CD workflow, they can reduce availability of releases with new services in four days rather than four months, for a more than 90 percent improvement in time to market. For example, a cloud-native “canary” process can enable zero downtime for feature deployment, versus the 5 to 10 seconds per containers for a greater than 85 percent reduction in costs alone.
- Performance. The efficiency of cloud-native technology receives a performance boost for the user plane using Cisco’s Vector Packet Processing technology, delivering a major performance increase from approximately 20 Gbps per server to approximately 400 Gbps per server, for a 20 times improvement.

For more details view the [Cisco Ultra Cloud Core data sheet](#).

Learn more about our [cloud core and packet core portfolio](#).