

Cisco Mobility Services Control Plane



Benefits

- **Deliver uninterrupted service** with multigenerational access and smooth handovers, keeping your customers connected anytime, anywhere.
- **Boost operational efficiency** by automating network management through Cisco Crosswork® NSO, reducing manual tasks and accelerating service delivery.
- **Save on costs and space** with MSCP's optimized footprint that minimizes power consumption and hardware requirements.
- **Simplify network operations** with a cutting-edge microservice-based architecture designed for agility and scalability.
- **Accelerate your 5G SA transformation** confidently, as MSCP offers full functional parity with the existing Control and User Plane Separation (CUPS) mobility packet core solution.
- **Enhance network reliability** with comprehensive observability across all network generations, enabling proactive issue detection and resolution.

Multigeneration mobile packet core for evolving service providers

Picture a regional mobile operator striving to meet rising demand for 5G while still serving millions of customers on established 2G, 3G, and 4G networks. The operator faces the dual challenge of launching advanced 5G services and next-generation innovations while guaranteeing uninterrupted service, operational efficiency, and consistent subscriber experiences for legacy networks.

Cisco's Mobility Services Gateway empowers communications service providers to deploy 5G services alongside their existing 2G, 3G, and 4G offerings, providing a seamless, incremental

path to 5G Standalone (5G SA) and beyond while maintaining backward compatibility.

At the heart of the Mobility Services Gateway is the Mobility Services Control Plane (MSCP), a cloud-native, next-generation control plane designed to unify and simplify network management across all access technologies.

This unified approach optimizes network resources, lowers operational costs, and delivers seamless, high-quality experiences to every subscriber, across all network generations.



Figure 1. Connecting your present and empowering your future

Why Cisco Mobility Services Control Plane?

- Delivers unmatched flexibility to manage all network generations in a single product over a common platform.
- Minimizes migration risk and business disruption.
- Reduces operational and capital expenditures through automation and consolidation.
- Provides incredible throughputs via MSUP, our next-generation user plane.
- Scales efficiently to address both current and future market needs.
- Provides deep operational visibility and analytics not found in legacy or single-generation solutions.
- Backed by Cisco's industry-leading expertise, support, and innovation.

Optimize network performance and scale 5G services with Mobility Services Control Plane

Cisco® Mobility Services Control Plane (MSCP) merges the Cisco Serving Gateway (SGW-C), Packet Data Network Gateway (PGW-C), and 5G Session Management Function (SMF) capabilities into a single, intelligent solution, reducing the complexity of operating multigeneration networks. With robust capabilities for session management, MSCP empowers operators to innovate confidently and scale new offerings quickly.

Key capabilities

- **Cloud-native deployment flexibility:** Deploys on Cisco's Cloud-Native Deployment Platform (CNDP) or Red Hat OpenShift, providing robust security and high availability.
- **Multigeneration support:** Enables seamless attach and handover across 2G, 3G, 4G, and 5G SA networks, for non-5G SA and 5G SA users.
- **Automated configuration and lifecycle management:** Integrates with Cisco Crosswork® Network Services Orchestrator (NSO) for unified, automated network configuration and faster service rollouts across all network generations.
- **Comprehensive observability:** Offers unified monitoring via Grafana and advanced observability through integration with Cisco Provider Connectivity Assurance (PCA).
- **Seamless integration with user plane:** Integrates with Cisco Mobility Services User Plane (MSUP), providing superlative throughputs to users.
- **Resource optimization:** Allows scaling of compute resources—scale in for lower 4G demand, scale out as 5G traffic increases—helping ensure efficient service delivery.

Learn more

If you're seeking a gateway that supports all network generations and streamlines your operations, or need to understand the licensing details for Cisco's Mobility Services Gateway and Control Plane, please reach out to your Cisco Sales representative or account team for a demo.