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Oracle Enterprise Communications Platform

Securely integrates communications into Oracle Cloud applications with a cloud-based platform that manages connectivity and securely delivers real-time data from devices, edge appliances, applications, and rich media sources into the Oracle ecosystem.

Oracle Enterprise Communications Platform (ECP) connects devices, networks, and applications across Oracle's industry cloud services under one platform. Built on Oracle Cloud Infrastructure (OCI), Oracle ECP enables organizations to orchestrate, manage, and secure communications for Oracle's next-generation cloud applications.

Oracle ECP spans IoT, edge, fixed, cellular, and satellite connectivity, bringing together diverse communication types into a unified Oracle framework. Oracle ECP securely integrates communications into Oracle Cloud applications—turning connectivity and device management into built-in capabilities.
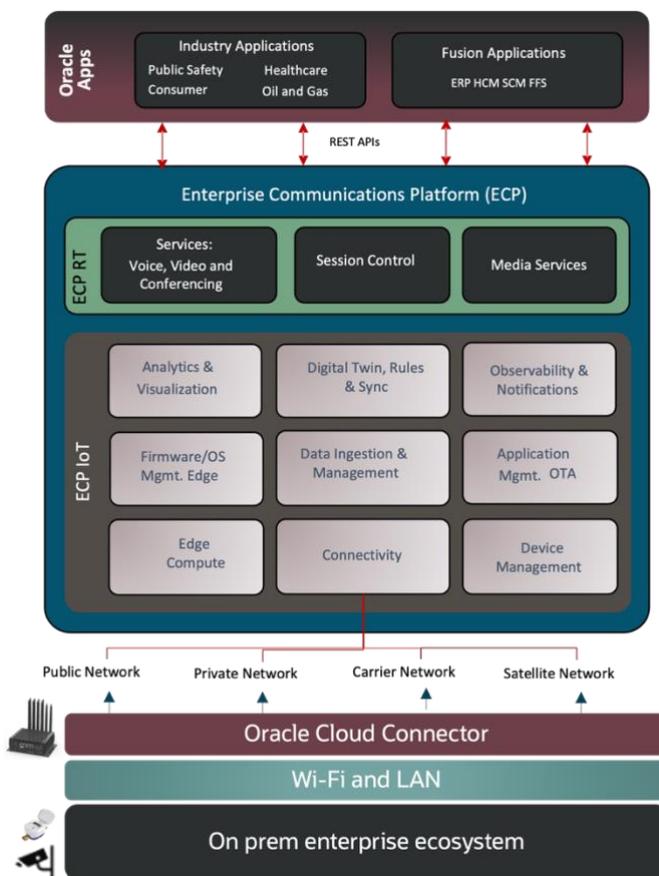

Image 1: Diagram depicting the components of Oracle Enterprise Communications Platform

ORACLE ECP BENEFITS

- **Maximizes operational uptime and business agility** by providing a resilient, efficient communications backbone—simplifying and automating multicarrier operations, including cellular and satellite, within a unified control plane.

- **Drives faster, smarter business decisions and strengthens operational resilience** by enabling real-time data analysis closer to its source, securely bridging on-premises systems and Oracle Cloud.

- **Reduces IT costs and accelerates responsiveness** through centralized, cloud-based management of Wi-Fi and LAN—empowering teams to optimize network performance and site connectivity.

- **Minimizes operational risks and boosts workforce productivity** with a unified, zero trust device framework that streamlines management of connected assets and distributed teams.

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Supporting the future of connected industries

Connectivity Management

Oracle ECP delivers resilient WAN connectivity across cellular, satellite, and other wired networks, enabling greater operational continuity, lower costs, and predictable performance in diverse or remote environments. By simplifying multicarrier operations within a unified control plane and providing resiliency across these networks with automatic failover, Oracle ECP reduces downtime, minimizes administrative effort, and sustains service quality without manual intervention, creating a more resilient and efficient backbone for mission critical communications.

Edge Management

A key component of Oracle ECP, Oracle Cloud Connector is an edge hardware appliance that brings enterprise applications closer to data sources by acquiring, aggregating, and normalizing device data, hosting business applications, and converting protocols. By processing and analyzing data at the edge, Oracle Cloud Connector accelerates decision making and enhances operational resilience, reducing latency and enabling real-time responses. This solution securely bridges on-premises systems with Oracle Cloud, maintains service continuity, and supports local application hosting for uninterrupted operations, even in remote or disconnected environments.

Cloud managed Wi-Fi and LAN

Oracle ECP enables organizations to securely manage the Oracle Cloud Connector's LAN environments remotely through advanced ethernet and Wi-Fi settings, accessible via a centralized console or API. With features such as device discovery, usage ranking, and comprehensive alerting, Oracle ECP streamlines network operations and accelerates site connectivity. This cloud-based approach reduces infrastructure costs, speeds deployments, and improves IT agility by delivering full network visibility, automated configuration, and proactive monitoring—all without the need for onsite controllers or additional hardware.

Device Management

Oracle ECP provides continuous, secure access to data on IoT devices, mobile devices and other endpoints outside the corporate network, establishing a unified zero-trust framework. Designed to support productivity tools for a mobile workforce, ECP streamlines device registration, management, and monitoring throughout the entire lifecycle—including onboarding, configuration, troubleshooting, and decommissioning. This comprehensive approach simplifies operations for dispersed teams, reduces operational risk, enhances workforce productivity, and maintains data security, while delivering valuable telemetry and analytics for deeper insights into device performance, usage, and asset health.

Security and compliance

Oracle ECP delivers enterprise-grade security with pre-tested measures, over-the-air patching, and automated device policy compliance to protect distributed networks, users, and devices. By centralizing policy enforcement, monitoring, and patch management in the cloud, Oracle ECP helps organizations strengthen their security posture, reduce exposure to threats and regulatory risks, and simplify compliance management. This unified approach streamlines security operations, eliminates the need for separate VPNs or manual patching, and delivers consistent compliance— even for remote or field-based assets.

- **Strengthens organizational security and simplifies regulatory compliance** by centralizing policy enforcement, monitoring, and patch management in the cloud across users, devices, and networks.

ORACLE ECP FUNCTIONS

- Continuous connectivity across fixed, cellular, and satellite

- Securely connect on premises devices via Oracle Cloud Connector's LAN and Wi-Fi and manage in the cloud

- Device and endpoint lifecycle management including provisioning, monitoring and control

- Application hosting and edge processing with local resilience and cloud integration

- Authentication and authorization for enterprise grade security

- Centralized visibility and analytics across connected devices and communication types

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Image 2: Oracle Cloud Connector

Oracle Cloud Connector

Oracle Cloud Connector serves as a vital edge appliance within Oracle ECP, seamlessly blending edge environments with OCI. Supporting both WAN and LAN connectivity, the Oracle Cloud Connector offers flexible networking options to connect devices and sites—whether through wired, cellular, or satellite WAN links, or broadcasting local area networks and Wi-Fi for on-premises integration. By deploying Oracle Cloud Connector, organizations can securely extend cloud native communications, management, and analytics to locations where critical business functions occur, such as remote sites, mobile clinics, industrial assets, and branch offices. This integration enables data and applications to remain accessible and secure, no matter the location or network conditions.

Oracle Enterprise Communications Platform Realtime (ECP RT)

ECP RT enables bi-directional audio, video, chat and screenshare, supporting collaboration through advanced real-time streaming and monitoring. It efficiently manages sessions with comprehensive audio and video stream control, including support for IP camera streaming via RTSP. ECP RT also offers rich media capabilities such as screensharing, chat, live captioning, and cloud-based stream recording. Capabilities include monitoring and capturing data from many end devices, such as body worn cameras back to a single subscriber such as a dispatch unit or providing interactive broadcasting from one publisher out to many subscribers responding to an emergency event. To maintain security, all connections are protected with robust authentication and authorization mechanisms, utilizing time-bound access tokens.

Reducing complexity and managing connectivity for enterprises

Enterprises across industries face mounting challenges as they navigate an increasingly complex technology landscape. The rapid proliferation of connected devices, diverse networking environments, and demands for real-time data have intensified the need for integrated, secure, and scalable solutions. Legacy systems and fragmented management tools hinder operational efficiency, limit visibility, and expose organizations to greater risks. Addressing these obstacles requires a unified, end-to-end approach—one that simplifies operations, strengthens security, and extends reliable connectivity. Oracle ECP is purpose-built to solve these challenges, enabling enterprises to thrive in today's connected world.

Multidevice interoperability

Enterprises frequently encounter difficulties integrating and securing a wide variety of devices and network technologies, while also managing rising costs and internal skill gaps. Disparate tools for device management and data collection can create operational silos, slow decision-making, and increase risk exposure.

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Oracle ECP delivers centralized control for all connected endpoints, enabling secure onboarding, comprehensive inventory management, and automated lifecycle management for devices across vendors, technologies, and geographies. This unified approach breaks down silos, accelerates operations, and enhances security.

Scalability

While cloud migration reduces IT overhead, it often creates integration challenges and fragmented visibility, limiting scalability as networks and devices remain on-premises or across multiple clouds. Oracle ECP centralizes management, security and connectivity across an enterprise. It streamlines device onboarding, policy enforcement and orchestration through open APIs that integrate with OCI and third-party clouds.

Security

As device volumes grow, security often becomes fragmented and reactive. Traditional tools for authentication, MDM, patching, and monitoring operate in silos—creating visibility gaps, slowing incident response, and complicating regulatory compliance as endpoint counts surge. Security and compliance are built into Oracle ECP's foundation. Patch management, attestation, remote credential management, and policy-based access are unified within a single, cloud-managed system that simplifies enforcement and strengthens resilience.

Connectivity

Industries such as healthcare, construction, utilities, hospitality, and the public sector depend on real-time connectivity for critical operations. However, consistent high-speed access remains a challenge in regions with limited infrastructure or remote geographies. Oracle ECP unifies fixed, mobile, and satellite networks—including integration with Starlink to securely manage connectivity and cloud application performance in remote or previously underserved areas. Through this global reach, Oracle industry applications can deliver high performance services in more than 100 countries and territories.

Powering connected industries

Oracle ECP is the foundation for Oracle's connected, secure, and scalable communications—spanning cloud and edge environments. It blends real-time voice and video with industry-leading device and connectivity management, distributed processing, and robust authentication. ECP's flexible architecture supports seamless integration of any device, over any connection—wireless, wired, cellular or satellite—delivering reliability for modern cloud applications.

Oil and gas

Oracle ECP enables ocean rigs in the oil and gas industry to enhance connectivity and operate seamlessly both online and offline, leveraging the Oracle Cloud Connector, and internet access via Starlink for reliable communication between remote-operated vehicles and offshore rigs or drillships. Oracle ECP facilitates secure, compliant operations through content filtering with allow/disallow lists, mobile device management, and network monitoring to prevent theft and unauthorized access, and centralized management of all connected equipment for efficient asset tracking. By providing real-time insights and up-to-date device usage information, Oracle ECP in conjunction with Oracle Fusion Applications (e.g.,

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Oracle Fusion Field Services, Oracle HCM, Oracle SCM, and Oracle ERP) helps optimize resource allocation, reduces non-productive time, streamlines fieldwork, and improves overall safety and compliance across offshore environments.

Consumer

Oracle ECP empowers the retail and hospitality sectors by enabling automatic connectivity failover across ethernet, cellular or satellite for point-of-sale and loyalty systems at pop-up locations, even in challenging settings like outdoor festivals or remote venues. Utilizing the Oracle Cloud Connector to locally host applications and Oracle ECP's mobile device management to manage onsite devices, Oracle ECP enables uninterrupted business operations, allowing organizations to maintain service quality in isolated or unpredictable environments. In hospitality, ECP helps enhance personalized guest experiences by supporting mobile check-in, real-time notifications, and digital concierge services. Additionally, ECP allows the consistent deployment and management of Oracle Fusion Applications—including Oracle ERP, HCM, SCM, and FFS—in maritime contexts such as the cruise industry, ensuring smooth business operations and guest services regardless of location or connectivity challenges.

Healthcare

Oracle ECP empowers rural clinics by providing secure cloud access to patient records through internet connectivity, such as Starlink, ensuring reliable digital resources even in remote locations. ECP enables the creation of unified, real-time longitudinal patient records that seamlessly connect care from hospital to home and supports the full digitization of the maternity journey—from registration to post-natal care—for improved monitoring and personalized support. Network security is enhanced with real-time insights to optimize inventory and resource allocation, while content access and security are managed through customizable allow/disallow lists, fostering a safe digital environment. Centralized mobile device management (MDM) further streamlines the oversight of all connected healthcare devices. Upcoming ECP features include telehealth enabled by Enterprise Communications Realtime (ECP RT) as well as patient vitals monitoring, bedside device integration, AI-powered fall and early sepsis detection, advanced analytics, and real-time alerts, further enhancing care delivery and patient safety in rural healthcare settings.

Public Safety

Oracle ECP powers the Oracle Public Safety Suite to deliver reliable, real-time communications for emergency vehicles and first responders. Integrated camera and video systems—including body-worn and drone cameras— utilize ECP RT to stream live video and location data securely to command centers over 4G/5G/LTE networks, with dual SIM capability and satellite fallback ensuring uninterrupted coverage even in the most remote locations. The solution provides instant access to real-time incident data and video feeds, enhances situational awareness for faster, better decision-making, streamlines device management with authenticated access, and integrates command-and-control functions for more efficient emergency response.

Learn more at oracle.com/government/state-local/public-safety.

Summary

Oracle ECP enables organizations to seamlessly connect, manage, and secure devices and networks across diverse environments, from edge to cloud. By providing resilient connectivity, centralized device management, alerting notifications, and enterprise-grade security, ECP reduces operational complexity, enhances performance, and supports business continuity—even in remote or challenging locations. This unified solution strengthens organizational agility and resilience, positioning enterprises to thrive in today's connected world

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Supported interfaces

Device to cloud connectivity protocols	MQTT over SSL HTTPS
Supported IOT message data formats	JSON Binary
Supported platforms for Oracle IOT client software	Java SE 5 and above C/C++ (POSIX, Linux) iOS Android Python JavaScript Windows
Device Connectivity	Cellular Wi-Fi
Oracle Cloud Connector connectivity	Ethernet USB Cellular MQTT over SSL Modbus Satellite

ECP RT	Advanced Video Coding:
	   H.264
	   VP8
	   Opus Audio
	Audio:
	OGG (Opus)
	Wav (PCM)
	G711 (SIS/RTSP)

Certified Device Connectivity	USB

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