

Xypoint® SUPL Server



Key Features

- Xypoint SUPL Server enables multiple positioning technologies including autonomous GPS, MS-based and MS-assisted A-GPS, MRL (Measured Results List - type of network measurements), hybrid GPS/MRL, Cell ID Timing Advance, Cell ID, and Cache positioning. It also supports both Network-initiated and Mobile originated use cases.
- Advanced Fallback Technology when GPS is not available – Xypoint SUPL Server uses fallback technologies (MRL, hybrid GPS/MRL, Cell ID Timing Advance, Cell ID, Cache) to provide the most accurate location fix possible, when GPS is not available due to indoor or urban canyon conditions.
- Standards-based solution – Xypoint SUPL Server is fully compliant with the Open Mobile Alliance (OMA) SUPL 1.0 standard. The standard provides security, authentication, and secure communication between the device and the Xypoint SUPL Server. The standard also defines the message interaction between the two, assuring device/server interoperability.
- Device Interoperability – TCS conducts lab-to-lab testing with many of the industry's leading device manufacturers to assure interoperability between its Xypoint SUPL Server and a myriad of A-GPS capable devices. In addition, TCS provides leadership within OMA by actively participating in formal interoperability testing.

Secure User Plane Location Server

Today, location-based services are among the most desired features on mobile phones, transforming them into powerful data devices with functions beyond traditional voice and messaging.

TeleCommunication Systems, Inc. (TCS) offers Xypoint® SUPL Server, the most accurate Secure User Plane Location (SUPL) server in the industry. Xypoint SUPL Server is a state-of-the-art SUPL 1.0* standards-compliant Assisted Global Positioning System (A-GPS) server that enables precise and sophisticated location-based services for wireless carriers.

Using only an operator's existing data network, the Xypoint SUPL Server allows quick and easy deployment for launching precise location services by connecting with A-GPS-capable devices, and providing the data required for the phone to quickly acquire the position of satellites and calculate location. Secure and completely standards-based, Xypoint SUPL Server assures interoperability across all device providers.

*SUPL 2.0, LTE, and GLONASS planned availability in 2010

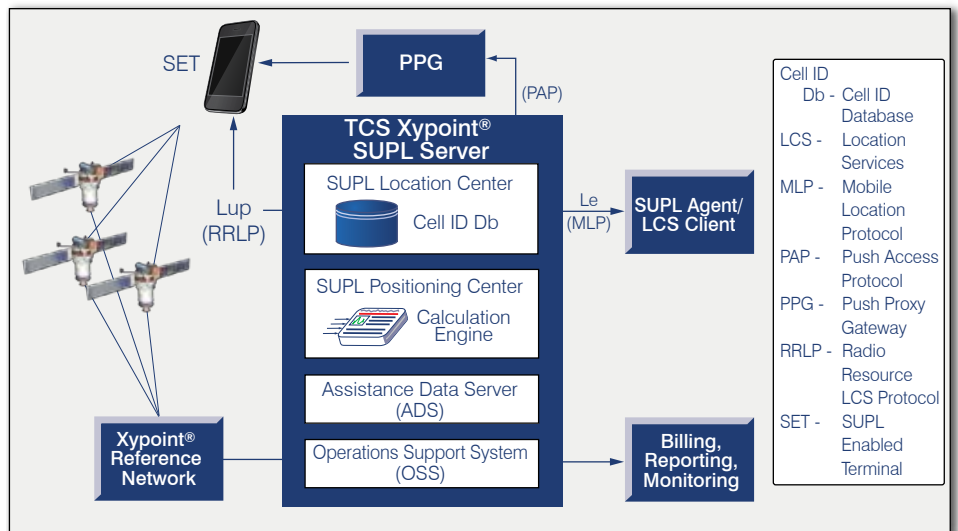
- Deployment options – Xypoint SUPL Server allows wireless operators flexible pricing and deployment options to meet any business case. It is easily configured for hosted deployment within the TL-9000-certified TCS data centers, or for in-network deployment and support. To reach the market faster and lower cost, operators have the option to deploy a hosted service initially, and then migrate to a self-owned and operated in-network solution as the usage increases.
- Complete Solution – Unlike any other provider, TCS delivers an entire end-to-end system for wireless carriers. Together with the Xypoint Reference Network used for global satellite assistance data, the Xypoint SUPL Server can locate a user anywhere on the globe. Along with the user's position, TCS offers a full compliment of geospatial services and a complete suite of end-user applications from traffic services to navigation.

Your Established Partner

TeleCommunication Systems, Inc. (TCS) (NASDAQ: TSYS) is a world leader in high availability and secure mobile communication technology. TCS infrastructure forms the foundation for market leading solutions in E9-1-1, text messaging, commercial location and deployable wireless communications. TCS is at the forefront of new mobile cloud computing services providing wireless applications for navigation, hyper-local search, asset tracking, social applications and telematics. Millions of consumers around the world use TCS wireless apps as a fundamental part of their daily lives. Federal government agencies depend on TCS' cyber security expertise, professional services, and highly secure deployable satellite solutions for mission-critical communications. Headquartered in Annapolis, MD, TCS maintains technical, service and sales offices around the world. To learn more about emerging and innovative wireless technologies, visit www.telecomsys.com.

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Location Determination

Effective location-based services begin with one fundamental step: Locating the user. Xypoint SUPL Server enables A-GPS capable devices to calculate position more quickly and accurately than traditional autonomous GPS. Upon request, the Xypoint SUPL Server delivers information to the device that indicates which of the 32 potential satellites in the GPS constellation is in view of the device. In addition, Xypoint SUPL Server provides important data on the fastest way to begin downloading the satellite's broadcast data to accelerate the time it takes to determine the initial location, or time to first fix (TTFF). Today's users simply won't wait minutes—Xypoint SUPL Server positioning can occur as fast as five seconds.

Xypoint SUPL System Architecture

The Xypoint SUPL Server is comprised of SUPL Location Center (SLC), SUPL Positioning Center (SPC), Assistance Data Server (ADS) and Operations Support System (OSS).

SUPL Location Center (SLC) serves as the gateway for the Xypoint SUPL Server. The SLC manages connections to the A-GPS device and other network nodes and calculates cell ID based positioning, logging a user's last known location in cache. The SLC is responsible for providing security,

authentication and user privacy, while ensuring the Xypoint SUPL Server efficiently utilizes network resources.

SUPL Positioning Center (SPC) is responsible for calculating the mobiles position. An industry-leading position calculation engine allows Xypoint SUPL Server to provide various A-GPS positioning methodologies, offering the most accurate SUPL server in the industry.

Assistance Data Server (ADS) connects with the TCS Xypoint Reference Network to access a global network of assistance data. The Xypoint Reference Network accesses data on all 32 potential satellites at all times, allowing ADS to support positioning of a device anywhere in the world.

Operations Support System (OSS) provides the Xypoint SUPL Server with a robust support that enables monitoring, reporting, and billing. Every transaction is logged for billing purposes with a variety of data fields available to support any pricing model.

Get Started Now

For more information, call 1.800.307.9489 or e-mail sales@telecomsys.com. Learn about TCS' complete line of products and services at www.telecomsys.com.