Xypoint® SUPL Server

Key Features

- Advanced Fallback Technology when GPS is not available – When GPS is not available due to adverse conditions such as indoor or urban canyon environments, Xypoint® SUPL Server uses fallback technologies (MRL, hybrid GPS/MRL, Timing Advance, Cell ID, Cache) to provide the most accurate location fix possible. Supports GSM, UMTS, LTE, and Wi-Fi, networks.
- Standards-based best-in-class solution – Xypoint SUPL Server is fully compliant with the Open Mobile Alliance (OMA) SUPL1.0 and 2.0 standards, supporting the full suite of handset and network initiated location flows, as well as MS-Based and MS-Assisted positioning for faster Time-to-First-Fix. Security, authentication, and secure communication between the device and the Xypoint SUPL Server are supported per the standards.
- Device Interoperability – In addition to the full standards compliance that promotes interoperability, TCS conducts lab-to-lab testing with many of the industry's leading device manufacturers to assure interoperability between the 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, as well as partnering with operators in trials to ensure their specific handsets interoperate successfully with the standards based SUPL server.

Secure User Plane Location Server

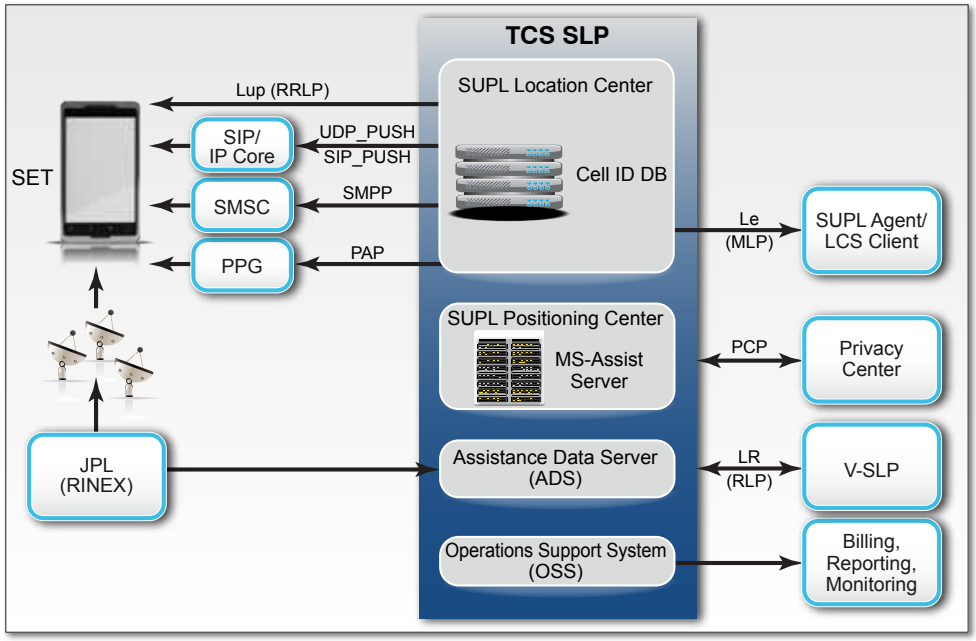
Today, location-based services are among the most desired features on mobile phones, transforming them into powerful data devices with functions beyond traditional voice and messaging.

TeleCommunication Systems, Inc. (TCS) offers Xypoint® SUPL 2.0 Server, the most accurate Secure User Plane Location (SUPL) server in the industry. Xypoint SUPL Server is a state-of-the-art SUPL standards-compliant Assisted Global Positioning System (A-GPS) server that enables precise and sophisticated location-based services for wireless carriers.

Using an operator's existing data network, the Xypoint SUPL Server allows for a quick and easy deployment for launching precise location services by connecting with SUPL- capable devices. This provides the assistance required for the phone to quickly acquire the position of satellites and calculate its location. Secure and completely standards-based, Xypoint SUPL 2.0 Server is with backward compatibility to SUPL 1.0 and assures interoperability across all device providers. Xypoint SUPL 2.0 Server also provides accurate indoor positioning via optional Wi-Fi location technology.

- Deployment options – Xypoint SUPL 2.0 Server allows wireless operators flexible pricing and deployment options to meet any business case. It is easily configured for hosted deployment within TL-9000-certified TCS data centers or for in-network deployment and support. To reach the market faster and at a lower cost, operators have the option to deploy a hosted service initially, and then migrate to a scalable self-owned and operated in-network solution.
- Complete Solution – Unlike competing products, TCS' SUPL 2.0 platform can seamlessly grow as traffic increases without any need for expensive external load balancers. Beyond the SUPL server, 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. TCS offers a full complement of geospatial services and a complete suite of end-user applications from navigation to family and asset tracking.

TCS TeleCommunication Systems
Enabling Convergent Technologies®



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 5 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. It then 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 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 1.888.728.8797 or e-mail sales@telecomsys.com. Learn about TCS' complete line of products and services at www.telecomsys.com.

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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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