

CLEARIP PEERING ENGINE

The ClearIP Peering Engine is a complete Open Settlement Protocol (OSP) library, that enables an OEM, OSS/billing application or network management vendor to quickly and easily build and develop a standalone carrier-grade OSP server, or integrate OSP capability into any IP telephony, billing/mediation or network management product.

OSP is a client-server protocol defined within the European Telecommunications Standards Institute (ETSI), which enables authenticated connections between IP telephony network devices, allows the secure transfer of accounting and routing information, and provides inter-service provider billing information for IP communications. OSP can authorize and collect usage information for any IP communication event. OSP adds significant value to IP telephony applications by enabling real time, secure inter-IP domain call authorization, routing and call detail reporting among multi-vendor, multi-protocol IP devices (gateways and gatekeepers, including H.323 gatekeepers, SIP proxies, and softswitches), and clearinghouse service providers.

The ClearIP Peering Engine includes:

- A complete set of server libraries that implement a full HTTP server, SSL and TLS security, OSP processing, Certificate Management Messaging server, and X.509 Certificate Authority
- Documented Application Programming Interface, and
- Complete sample application with Web-Browser based configuration, monitoring and text-file provisioning and CDR retrieval.

FUNCTIONALITY

ClearIP Peering Engine application functions include:

- Real time, secure inter-IP domain call authorization
- Secure authentication
- Feature rich call routing, calling and called number translation
- Call detail reporting among IP devices (gateways and gatekeepers, including H.323 gatekeepers, SIP proxies, and softswitches) and clearinghouse settlement service providers

BENEFITS

Time to Market

The ClearIP Peering Engine enables an OEM, OSS/Billing Application vendor to accelerate time to market by eliminating time and resource intensive development.

Compatibility

The ClearIP Peering Engine is interoperable with a variety of IP telephony devices (gateways and gatekeepers, including H.323 gatekeepers, SIP proxies, and softswitches) from multiple vendors such as Cisco and open source projects like Asterisk and SER. Contact TransNexus for an up-to-date list of compatible vendors.

The ClearIP Peering Engine is fully compatible with the OSP Toolkit available from www.sipfoundry.org.

Future Proof

The OSP protocol is designed to complement any IP network application and is able to interoperate with H.323 networks, SIP networks and future IP network applications and protocols.

Robust, Reliable, Scalable Design

The ClearIP Peering Engine has been designed with carrier-grade reliability and scalability in mind. An OSP server can be operated in back-up, hot standby or as multiple live servers enabling operators to provide carrier grade reliability to their customers.

The ClearIP Peering Engine has been tested for use with Linux, Windows and Solaris operating systems.

PROTOCOL STANDARDS

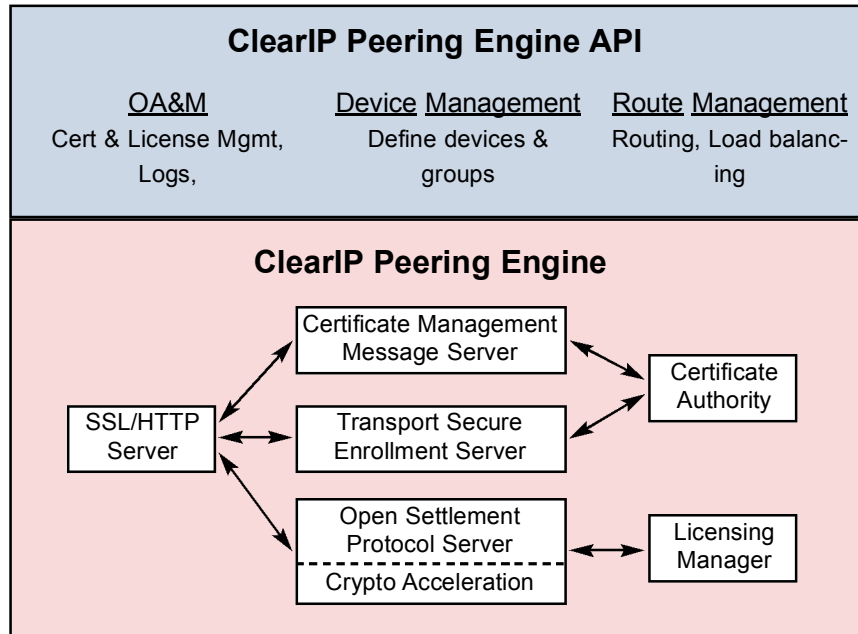
- The Open Settlement Protocol - European Telecommunications Standards Institute. *Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON); Inter-domain pricing, authorization, and usage exchange.* [Technical Specification TS 101 321 version 1.4.3.]
- Certificate Management Messages over CMS [IETF RFC 2797]
- Secure Sockets Layer v3.0
- Transport Layer Security v1.0

PLATFORM REQUIREMENTS

- Sun Solaris, Windows 2000 or Redhat Linux
- Optional Cryptographic Acceleration
 - Rainbow Technologies CryptoSwift Secure Server Accelerator



OSP NEXUS ENGINE COMPONENTS



The ClearIP Peering Engine includes the following major components:

HTTP Server: A complete, high performance, Hypertext Transfer Protocol (HTTP) server with built-in support for Secure Sockets Layer (SSL) and Transport Layer Security (TLS). The server includes an open interface for persistent HTTP applications.

OSP Server: A server implementation of the ETSI Open Settlement Protocol (OSP), with support for call routing, authorization, and usage collection. The OSP implementation is fully interoperable with clients from 3Com, Cisco, Lucent, and others.

TEP Server: A Transport-secured Enrollment Protocol (TEP) server for secure enrollment of clients from 3Com, Lucent, and others.

SCEP Server: A Simple Certificate Enrollment Protocol (SCEP) server for secure enrollment of clients from Cisco and others.

Common Certificate Authority: An X.509 certificate authority supporting TEP and SCEP enrollment, as well as OSP authorization tokens.

In addition to the generic HTTP application interface, the OSP Engine includes its own application programming interface (API). The OSP Engine API provides the following functionality:

- Engine Initialization and startup, including control and operation of individual services (OSP, TEP, and SCEP).
- Software licensing, including maintenance of software license keys and administration of licensable features.
- Cryptographic key management.
- Configuration and administration of devices and device groups.
- Configuration and administration of call routes and destinations.
- Management of call detail records.
- Management of engine event logs.
- Management of OSP statistics.

HOW TO CONTACT TRANSNEXUS

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