



## DATA SHEET



### KEY BENEFITS

#### *Extend Reach and Reduce Costs*

The Carrier IP Connect service bridges disparate VoIP networks to reach more endpoints via end-to-end VoIP, centralizes voice and data management, reduces costs, and offers an expanded selection of value-added services.

#### *Streamlined Operations*

VeriSign is your single interconnection point for routing calls between VoIP networks and enterprise IP private branch exchange (PBX) networks. VeriSign provides a secure platform, resolves interoperability issues, and delivers end-to-end IP features.

#### *Assured Security*

VeriSign is the leader in Managed Security Services, extending our experience in securing Internet infrastructure to ensuring protection of network interconnection points with firewall management, intrusion detection, vulnerability protection, vulnerability alerting, managed VPN, and incident response and forensics services.

## VeriSign® Carrier IP Connect

Today, many next-generation voice operators still connect their Voice over Internet Protocol (VoIP) networks to the rest of the world via public switched telephone network (PSTN) interconnections. To realize the full benefits of a packet-switched voice network, however, VoIP providers need to enable end-to-end IP voice calls; and as IP Voice infrastructure gets more extensive and costly, carriers require a managed services provider who can interconnect disparate VoIP networks with integrity. With lightning-speed directory services, secure network infrastructure, and unmatched signaling expertise, VeriSign helps service providers interoperate seamlessly with other providers—establishing trusted signaling relationships, feature transparency, reliable security mechanisms, and the satisfaction of quality-of-service (QoS) specifications.

### + The Solution

The VeriSign® Carrier IP Connect service bridges disparate VoIP networks to extend VoIP beyond the borders of a provider's own network, enable IP-enhanced services such as video calls, and reduce costs by eliminating IXC toll charges and providing a unified strategy for the security and management of all IP applications and devices. With Carrier IP Connect, VoIP providers can establish a single connection point to the VeriSign network, rather than maintaining multiple interconnection points to disparate VoIP networks, each with its own particularities.

VeriSign network provides:

- Secure connectivity
- Robust route management
- Reliability and scalability
- Interoperability with peer network equipment
- Feature transparency

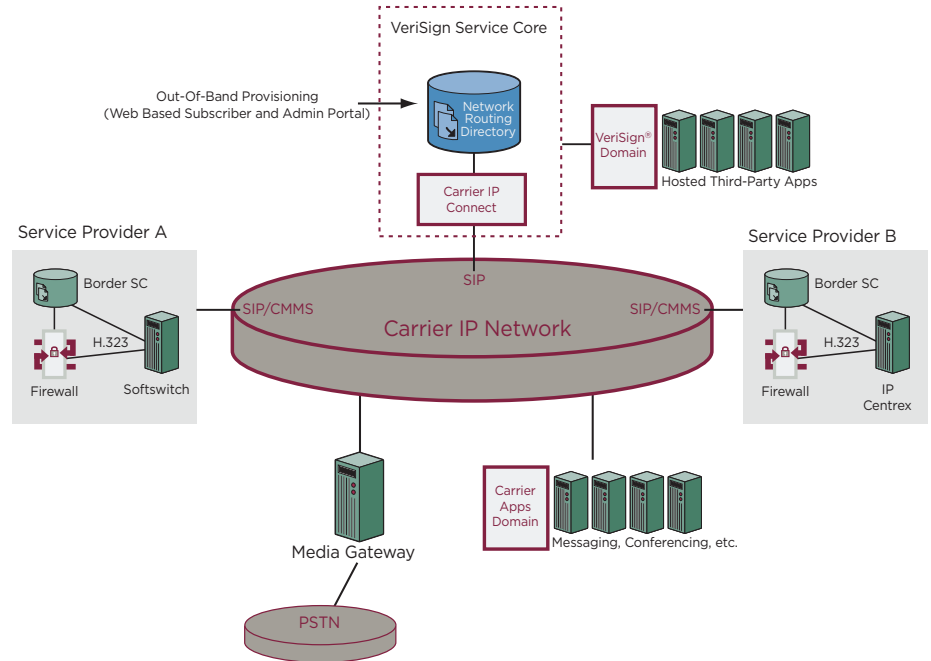


Where it all comes together.™

**Reliability**

Route management for Carrier IP Connect is supported by the Network Routing Directory residing on the VeriSign ATLAS infrastructure with proven scalability and reliability—handling more than 14 billion transactions a day for the Internet’s .com and .net domains.

**Carrier IP Connect Architecture**



Carrier IP Connect enables service providers to connect VoIP domains to the VeriSign network, to and reach other VoIP domains that are also connected to the VeriSign network.

**Security:** Carrier IP Connect builds on VeriSign® Managed Security Services (MSS) to provide perimeter security management at the interconnect points to a service provider’s network. Leveraging the 24/7 VeriSign Security Operations Center, Carrier IP Connect is protected by firewall management, intrusion detection, vulnerability protection, vulnerability alerting, managed virtual private network (VPN) service, and incident response and forensics services. The VeriSign security service goes beyond installing security products: VeriSign provides a professional staff, fully equipped with monitoring, protection, and response capabilities.

**Route management:** Carrier IP Connect is managed by the VeriSign Network Routing Directory, a centralized registry for inter-domain routing, and built upon the same infrastructure that runs the .com and .net top-level domains for 14 billion Internet transactions every day. Calls are routed to the proper network, based on the location of the called party. Additional routing criteria, provisioned per service provider, are also supported for more sophisticated route resolution methods. Through its service discovery capability, the registry services platform also initiates local number portability (LNP) services, and toll-free and calling name (CNAM) queries. Carrier IP Connect is integrated with VeriSign’s own Signaling System 7 (SS7) network—the largest private SS7 network in the world—to handle SS7 interactions transparently to the operator.



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### FEATURES:

- + Request for Comments (RFC) 3261 SIP Protocol as the standard trunking protocol for VoIP networks
- + Support for PacketCable 1.2 CMSS to interface with multiple systems operator (MSO) networks
- + H.323 v2 and v4 to interface with other VoIP networks
- + Interoperability between SIP, CMSS, and H.323, across equipment from leading vendors
- + ENUM, CMSS, or SIP access to the Network Routing Directory for route resolution
- + T.38 fax relay
- + V.90/V.92 traffic support
- + Real-Time Transport Protocol (RTP) flow control through the border control gateway
- + G.711, G.723.1, G.729a compression/decompression (CODEC) types
- + Real-time call detail record generation
- + Routing of a variety of criteria on the VeriSign infrastructure, including called number, calling number, originating network, call type, number patterns, time of day, and day of week
- + Route plans that are customizable to suit each VoIP providers needs
- + Ability to provision routes without requiring changes on carrier-provisioned equipment
- + Service discovery leading to service control point (SCP) interactions by the Network Routing Directory platform for LNP, toll-free database, and CNAM queries
- + End-to-end IP feature delivery

**Reliability and scalability:** Routing resolution for intercarrier calls needs to be supported by a 99999-percent-available infrastructure, and VeriSign provides that level of reliability. Also, the VeriSign ATLAS infrastructure can scale to support a very large number of routing entries: although it already performs more than 14 billion transactions a day for the Internet's .com and .net domains, it can support many times that number of transactions.

**Interoperability:** Carrier IP Connect is compliant with a broad range of industry standards, including Session Initiation Protocol (SIP), H.323, Electronic Numbering (ENUM), and PacketCable™ Cable Media Switching Systems (CMSS) protocol. Carrier IP Connect provides protocol inter-working to normalize IP signaling to a SIP stream, which minimizes the interoperability challenges that occur in call setup with the terminating networks. If terminating networks use H.323 or a variation of the SIP call control protocol, the VeriSign network resolves these differences and normalizes all traffic at the network edge—ensuring a single consistent signaling stream across the carrier IP network. This protocol normalization maximizes the addressable market for carriers, enabling them to interoperate with a VoIP provider regardless of protocol or network topology.

**Feature transparency:** Carrier IP Connect delivers advanced IP features end to end, regardless of the protocols in use or the equipment vendors deployed in the egress and ingress networks. By providing interoperability between interconnecting service providers, features provided in either network are supported end to end.

**Visit us at [www.VeriSign.com](http://www.VeriSign.com) for more information.**