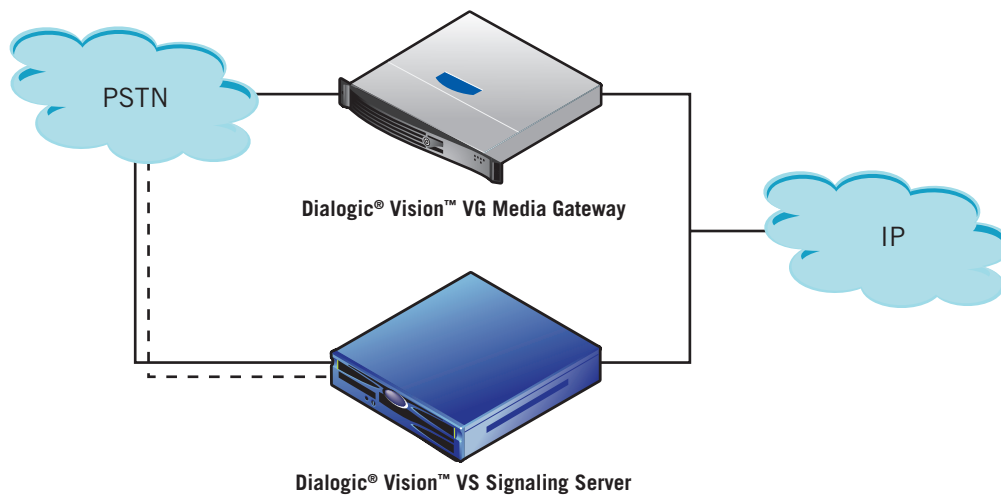


Dialogic® Vision™ VS Signaling Server

High-Capacity Network Signaling

Datasheet

Dialogic® Vision™ VS Signaling Server, together with the Dialogic® Vision™ VG Media Gateway, form a scalable, highly available turnkey set of components for VoIP application developers who need to connect their application or service to legacy PSTN networks. This powerful combination provides a cost-effective choice for network equipment providers, system integrators, and application developers seeking to develop carrier-ready, scalable, IP-based enhanced services that can be accessed from both the PSTN network and IP networks.



As an integral part of this combination, the Vision VS Signaling Server brings Dialogic's proven SS7 signaling technology to a wide range of applications and network deployments, including prepaid card processing, mobile Centrex, conferencing, and network announcements. Designed specifically to provide high capacity and high availability network signaling capabilities for Vision VG Media Gateways, the Vision VS Signaling Server combines high performance, a compact footprint, and telco-grade reliability — all in a cost-effective, 2U, rack-mount server. It connects to as many as 4 E1/T1 trunks and supports up to 32 SS7 signaling links. Depending on a service's traffic profile, that is enough for thousands of concurrent subscribers.

The Vision VS Signaling Server is one of the Dialogic® Vision™ Family of Servers and Gateways, which offers turnkey products to developers and service providers that can significantly lower the cost and time needed for application development. Coupled with comprehensive support and maintenance services, the Vision Family not only enables rapid development of solutions, but reliable deployment as well.



Features

Provides ISUP signaling over SS7 for the Dialogic® Vision™ VG Media Gateway

Configurable with high link capacity; inherently high signaling throughput

Five nines availability through server and link redundancy

2U carrier-grade hardware platform

Leverages the familiar Dialogic® NaturalAccess™ NaturalCallControl™ API

Supports up to 20 clients

Dialogic® Vision™ Family of Servers and Gateways

The Dialogic® Vision™ Family of Servers and Gateways is a comprehensive product line designed to enable OEMs and application providers to rapidly develop and deploy converged multimedia applications.

Vision Family members include:

Dialogic® Vision™ VX Integrated Media Platform — A comprehensive product for the development and deployment of complex speech and video applications in TDM, SIP/IP, and 3G networks.

Dialogic® Vision™ VG Media Gateway — A SIP-enabled PSTN interface for VoIP-based enhanced service platforms, supporting global ISDN and CAS signaling and offering integration with the Vision VS Signaling Server for SS7 connectivity.

Dialogic® Vision™ VS Signaling Server — A component that connects multiple Vision VG Media Gateways to SS7 environments, eliminating the need to learn complex SS7 signaling.

The Vision Family delivers media on a network to applications with unrivalled speed.

Dialogic® Vision™ VS Signaling Server

Product Description

The Vision VS Signaling Server provides consolidated SS7 signaling capabilities for the Vision VG Media Gateway, allowing service providers to take advantage of the cost savings of using inter-machine trunks (ISUP bearer trunks) vs. the generally more costly ISDN trunks. The Vision VS Signaling Server abstracts the complexities of SS7 signaling, eliminating the need for developers and service providers to become experts in SS7 signaling.

Based on NEBS-compliant server hardware, the Vision VS Signaling Server is ready for in-network installation. Two servers may be operated in a redundant, fault-tolerant configuration, sharing a single pointcode and providing node-level redundancy. A DC power option, plus alerts and alarms, further enables the Vision VS Signaling Server to remain up and running.

The Vision VS Signaling Server supports from 4 to 32 ISUP low-speed signaling links (DS0s), or 4 high-speed links (DS1s), over software-selectable T1/E1 trunks. A single Vision VS Signaling Server, or redundant pair, is capable of supporting up to 20 Vision VG Media Gateways, or up to 4,800 ports.

Leveraging years of Dialogic expertise in SS7 signaling, the Vision VS Signaling Server offers proven performance and network interoperability, allowing service providers to interface to virtually any PSTN worldwide.

Dialogic® Vision™ VS Signaling Server

High-Capacity Network Signaling

Datasheet

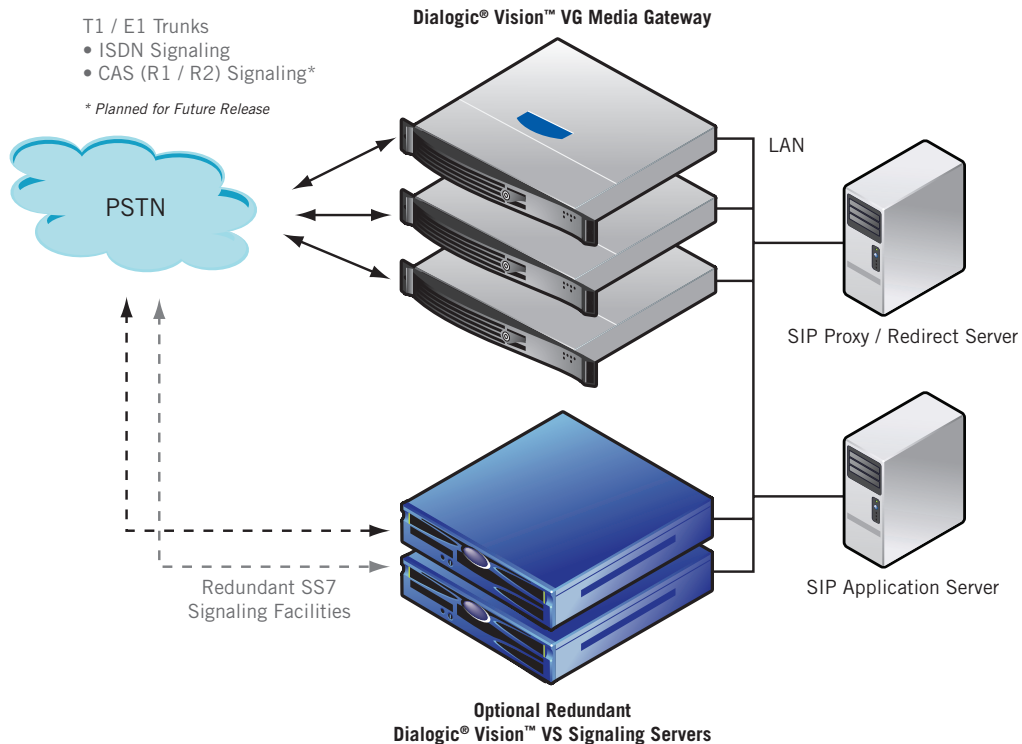


Figure 1. Scalable Configuration of Vision VG Media Gateways and Optional Vision VG Signaling Servers Acting as Front Ends to IP-Based Application Servers

Applications

As enhanced services applications grow in popularity and call rates increase, the efficiency of network signaling becomes more important to operators who are focused on minimizing network operating expenses. Signaling System 7 (SS7) provides higher capacity signaling at typically much lower cost than do alternatives such as ISDN or channel associated signaling (CAS)*. That, in turn, allows larger user populations to be supported without having to expand the enhanced services platform, improving both customer satisfaction and the bottom line.

Services that benefit from high-capacity network signaling include:

Prepaid Cards — ISUP signaling from the network switch to the prepaid platform speeds call setup, reduces subscriber wait time, and improves the user experience.

Conferencing — Callers joining and leaving conferences require rapid, efficient call set up and tear down. In addition, sophisticated, large-scale conferencing services with features such as operator assistance, polling, and Q&A sessions become easier to implement with SS7 signaling.

Call Center Applications — Calls coming into large call centers need to get distributed based on a number of criteria, such as hold time, the availability of service representatives, or the subject matter expertise required by a given caller. For large, high-volume call centers, SS7 is the protocol of choice for managing such call routing between the network switch and the call center itself.

* Planned for future release.

Technical Specifications

Scalability

- 4, 16 or 32 SS7 links
- Up to 4 E1/T1 trunks, up to 8 with redundancy

Supported SS7 Protocols

- MTP layers 1 to 3
- ISUP
- TCAP (planned)

Compliance

The Dialogic® Vision™ VS Signaling Server supports the following SS7 layers, and complies with the listed standards.

MTP

- ETS 300-008-1, 300-308-2, ETSI, 1997
- GF001-9001 (SS7 for National Telephone Network of China)
- Q.701-702, ITU-T, 1992
- Q.703-704, ITU-T, 1996
- Q.707, ITU-T, 1992
- Q.781-782, ITU-T, 1996
- T1.111, 234, ANSI, 1992
- TTC JJ-90.10
- NTT Q.701-704, Q.707
- GR-246-CORE
- GR-606-CORE

ISUP

- China ISUP
- EN 300-356-1, ETSI ISUP V.3, 1998
- ETS 300-121, ETSI ISUP V.1, 1992
- ETS 300-356-1, ETSI ISUP V.2, 1995
- ETS 300-356-33, ETSI
- Q.730-737, ITU-T, 1992
- Q.761-764, ITU-T, 1997
- Q.767, ITU-T, 1992
- Q.784, ITU-T, 1996-1997
- T1.113, 236, ANSI, 1995
- NTT Q.761-764

TCAP (planned)

- Q.771-775, 787, ITU-T, 1997
- T1.114, ANSI, 1992

Technical Specifications *(continued)*

Operating System Support

- Vision VS Signaling Server:
 - Sun SPARC Solaris 9
- Client Software APIs:
 - Sun SPARC Solaris 9 (32 bit and 64 bit)
 - Red Hat Linux Enterprise 4.0 ES
 - Windows Server® 2003

DS-1 Telephony Interface

- Interface: ANSI T1.102, T1.403
- Framing: D4, ESF
- Line code: AMI, B8ZS
- Zero bits: Selectable B8ZS or no zero code suppression
- Error detection capabilities: Loss of Signaling Multiframe Alignment and Loss of CRC Multiframe Alignment (red), Remote Alarm and Remote Multiframe Alarm (yellow), Alarm Indication Signal (AIS) (blue)
- Counts: Bipolar violation, F(t) error, and CRC error
- Loopback: Per-channel and overall under software control

CEPT E1 G.703/G.704 Telephony Interface

- Interface: Full featured G.703 2048 kbps trunk interface
- Framing: CEPT G.704
- HDLC/LAPD for generating/terminating a data link
- Line code: HDB3 or AMI (in zero code suppression)
- Alarm signal capabilities: Loss of Frame Alignment (LOF), Loss of Signaling
- Multiframe Alignment and Loss of CRC Multiframe Alignment (red), Remote Alarm and Remote Multiframe Alarm (yellow), Alarm Indication Signal (AIS) (blue)
- Counts: Bit error rate, CRC errors, slips, line code violations, far-end block errors
- Loopback: Per-channel and across channels under software control

Hardware

- 2U NEBS-compliant chassis

Physical Dimensions

- Height: 3.44 inches (8.74 cm)
- Width: 16.73 inches (42.5 cm)
- Depth: 20 inches (50.8 cm)

Power Requirements (including Dialogic® TX 4000 Series SS7 Boards)

- -40/-75 V DC (3A/2A)
- 90-264 V AC (47-63 Hz); Nominal: 125 W

Dialogic® Vision™ VS Signaling Server

High-Capacity Network Signaling

Datasheet

Technical Specifications *(continued)*

Operating Temperature

- 5° C to 40° C (41° F to 104° F), 20% to 80% relative humidity, noncondensing

Trunk Connections

- 2 RJ-45

Management and Monitoring

- CLI craft Interface

www.dialogic.com

Dialogic Corporation
9800 Cavendish Blvd., 5th floor
Montreal, Quebec
CANADA H4M 2V9

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH PRODUCTS OF THE DIALOGIC CORPORATION ("DIALOGIC"). NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN A SIGNED AGREEMENT BETWEEN YOU AND DIALOGIC, DIALOGIC ASSUMES NO LIABILITY WHATSOEVER, AND DIALOGIC DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF DIALOGIC PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT OF A THIRD PARTY.

Dialogic products are not intended for use in medical, life saving, life sustaining, critical control or safety systems, or in nuclear facility applications.

Dialogic, NaturalAccess, NaturalCallControl, and Vision are either registered trademarks or trademarks of Dialogic Corporation or its subsidiaries. Dialogic's trademarks may be used publicly only with permission from Dialogic. Such permission may only be granted by Dialogic's legal department at the address listed above. Any authorized use of Dialogic's trademarks will be subject to full respect of the trademark guidelines published by Dialogic from time to time, and any use of Dialogic's trademarks requires proper acknowledgement. Windows Server is a registered trademark of Microsoft Corporation in the United States and/or other countries. Other names of actual companies and products mentioned herein are the trademarks of their respective owners.

None of the information provided in this datasheet other than what is listed under the section entitled Technical Specifications forms part of the specifications of the product and any benefits specified are not guaranteed.

Dialogic may make changes to specifications, product descriptions, and plans at any time, without notice.

Any use case(s) shown and/or described herein represent one or more examples of the various ways, scenarios or environments in which Dialogic® products can be used. Such use case(s) are non-limiting and do not represent recommendations of Dialogic as to whether or how to use Dialogic products.