Dialogic® DSI Signaling Web Services Based on Dialogic® DSI SS7G41 Signaling Servers

Datasheet

Dialogic® DSI Signaling Web Services (DSI SWS) is a scalable, high-performance telecommunications signaling platform that combines connectivity to SS7- and SIGTRAN-based mobile networks with a focused Web Services API to simplify mobile VAS application development. DSI SWS can enable applications built using standard web services development techniques to efficiently harness the key mobile technologies of SMS, Unstructured Supplementary Services Data (USSD), and Location Based Services (LBS).

Features	Benefits
Service-oriented, RESTful Web Services API for SMS, USSD, and LBS utilizing HTTP with an XML payload	Allows the rapid creation of applications that can interact with mobile handsets using a wide variety of programming languages, including Java, Python, PHP and the .NET framework
Supports all layers of the SS7 protocol stack up to and including the MAP layer over TDM and SIGTRAN networks	Facilitates global deployment and the ability to configure protocol variants at runtime
Scales from 8 Low Speed Links (LSL) up to 248 LSL or 8 High Speed Links (HSL); HSL can be Q.703 Annex A or ATM	Allows cost-effective use of a common platform across a wide range of deployments; allows scaling of platform capacity over time
SIGTRAN capacity (M3UA/M2PA) scales from 8 to 256 TDM link equivalents using flexible throughput-based licensing	Lets provisioned capacity match deployment needs at installation
Compact 1U form factor with dual AC or DC power supply capability	Permits excellent link density in a small footprint for required deployment options and carrier-ready resilience
Supports both browser and command line interface for OA&M in addition to SNMP and "lights-out" management	Facilitates comprehensive, user-friendly remote management using standard tools
Built-in traffic measurement, event logging, and protocol tracing (including PCAP format), backed by fully documented internal interfaces between protocol layers	Provides good visibility of utilization and traffic levels and facilitates fast resolution of network protocol issues

Dialogic® DSI Signaling Web Services Based on Dialogic® DSI SS7G41 Signaling Servers

Extends the Reach of Business Applications

DSI SWS can enable a broad range of Value-Added Services (VAS) in carrier environments, including handset provisioning, subscriber alerts, emergency response, mobile advertising, and mobile payments. SWS can be used to extend the reach of existing business applications, enabling them to send text messages notifications to mobile users, interact with authenticated customers using USSD, or determine the current location of cooperating subscribers.

Figure 1 provides an example of how signaling web services based on the Dialogic® DSI SS7G41 Signaling Server can be deployed in a service provider network.

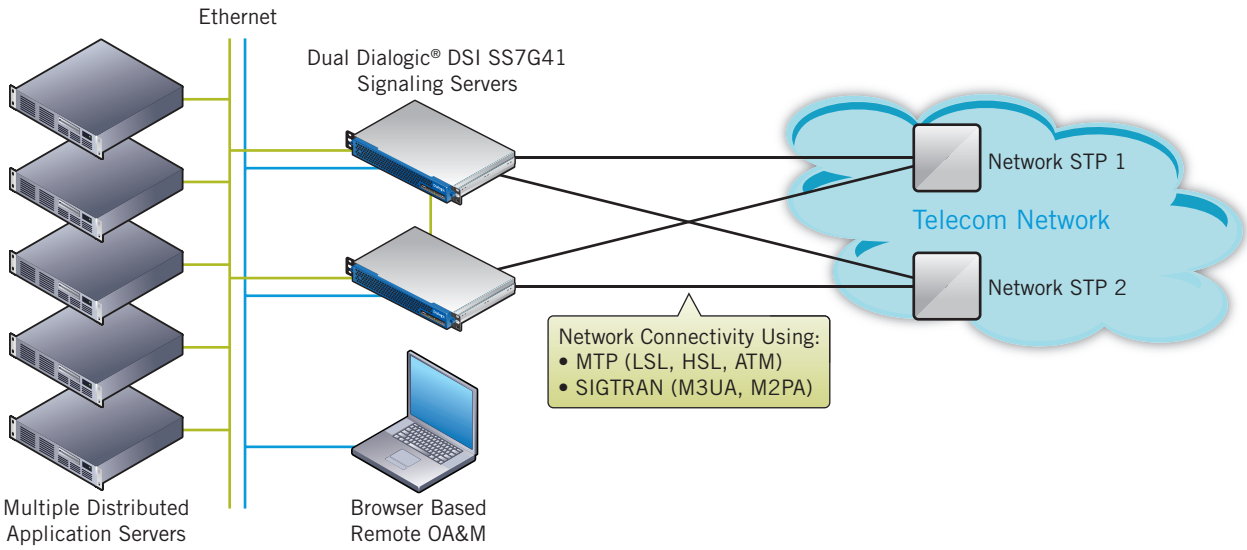

Figure 1. Dialogic® DSI SS7G41 Signaling Servers in a Service Provider Network

Offers High Availability and Flexible OA&M

The DSI SWS offers carrier-ready fault resiliency, occupies a small (1U) footprint, and offers dual hot-swappable AC or DC power supplies. It supports standard operations, administration, and maintenance (OA&M) interfaces via a web browser, a command line interface, and SNMP, allowing easy integration into automated, centralized management systems.

Dialogic® DSI Signaling Web Services Based on Dialogic® DSI SS7G41 Signaling Servers

Technical Specifications

Configurations	DSI SS7G41	
Form factor	1U Rack Mount Server	
SS7 T1/E1 interface boards	Up to two boards per unit; either Dialogic® DSI SS7LDH4 Network Interface Board or Dialogic® DSI SS7MDL4 Network Interface Board are used	
	SS7LD	**SS7MD**
T1/E1 ports per board	4 T1 or 4 E1	4 individually selectable T1/E1
SS7 Low Speed Links per board	Up to 16	Up to124
SS7 High Speed Links (Q.703 Annex A) per board.	N/A	Up to 4
ATM High Speed Links per board.	N/A	Up to 4
Maximum SS7 links per unit	248	
Maximum SS7 link sets per unit	64	
Maximum M2PA links per unit	256	
Maximum number of SS7 routes	4096	
Maximum number of SIGTRAN associations	256	
10/100/1000Mbit/sec Ethernet interfaces	4 as standard; can be increased to 6 using Dual Gigabit Ethernet NIC accessory SS7G41NIC, which consumes one of the signaling board slots	
Transactions per second over TDM or SIGTRAN (required number of transactions vary; for example, sending an SMS typically requires two transactions while a location lookup requires one)	12,000 (provisional figure)	
Power	AC or DC	
MTBF (Using Telcordia method at 40°C)	95,000 to 133,000 hours, depending on type and number of boards in chassis (assumes dual PSU configuration)	

T1/E1 Interfaces

Pulse mask	T1: ANSI T1.403 E1: ITU-T G.703
Data rate	T1: 1544 kbps ± 50 ppm E1: 2048 kbps ± 50 ppm
Frame format	T1: D4, ESF, and ESF-CRC6 E1: E1 and E1-CRC4
Line codes	HDB3, AMI, B8ZS
Connector type	RJ-48C

Technical Specifications *(continued)*

Power

DC-powered products	
Supply voltage (range nominal)	–48 VDC to –60 VDC
Input power (fully equipped)	150 W
Range limits	–36 VDC to –75 VDC
AC-powered products	
Input voltage	90 VAC to 264 VAC
Input power (fully equipped)	150 W
Frequency range	43 Hz - 63 Hz

Physical Dimensions

Height	1.74 in. (4.4 cm)
Width	16.93 in. (43.0 cm)
Depth	20.4 in. (51.9 cm)
Weight – fully equipped	26.8 lbs (12.16 kg)

Environmental

Operating temperature	+50°F (+10°C) to +104°F (+40°C)
Storage temperature	–40°F (–40°C) to +158°F (+70°C)

Safety and EMC

International	CB Certificate to IEC UL 60950 -1 2nd Ed. 2007 EN 300 386, EN55022, EN55024, CISPR 22
United States	UL 60950 -1 2nd Ed. 2007 FCC Part 15 Class A
Canada	CAN/CSA-C22 No UL 60950 -1 2nd Ed. 2007 ICES-003

Telecommunications

International	TBR12, TBR13
United States	TIA-968-A
Canada	CS-03
Hazardous substances	RoHS compliance information at http://www.dialogic.com/rohs
Country-specific approval information	Refer to global product approvals database at http://www.dialogic.com/declarations
Warranty	Warranty information at http://www.dialogic.com/warranties
Service plans	See Dialogic® Pro™ Services information at http://www.dialogic.com/products/services

For More Information

For more information about the product discussed in this datasheet, contact your local Dialogic representative. Worldwide contact information can be found online at www.dialogic.com/contact.

www.dialogic.com

Dialogic Inc.
1504 McCarthy Boulevard
Milpitas, CA 95035-7405
USA

12/11 12957-01