

Dialogic® DSI Signaling Web Services Based on Dialogic® DSI G51 Signaling Controller

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 512 TDM link equivalents using flexible throughput-based licensing	Lets provisioned capacity match deployment needs at installation
Compact 1U form factor with dual hot swappable AC power supplies	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

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 G51 Signaling Controller can be deployed in a service provider network.

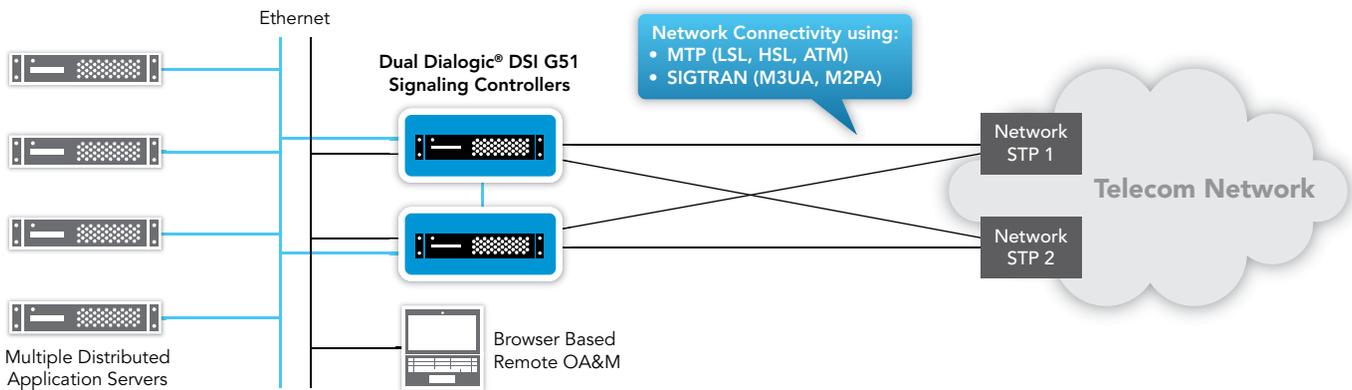


Figure 1. Dialogic® DSI G51 Signaling Controllers in a Service Provider Network

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 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.

Technical Specifications

Configurations	DSI-G51		
Form factor	1U Rack Mount Server		
SS7 T1/E1 interface boards	Can be supplied without signaling boards (DSI-G51A00), with one low density board (DSI-G51AL1), with one high capacity board (DSI-G51AM1) or two high capacity boards (DSI-G51AM2)		
	DSI-G51AL1	DSI-G51AM1	DSI-G51AM2
T1/E1 ports	4 T1 or 4 E1	4 individually selectable T1/E1	8 individually selectable T1/E1
SS7 Low Speed Links	Up to 16	Up to 124	Up to 248
SS7 High Speed Links (Q.703 Annex A).	N/A	Up to 4	Up to 8
ATM High Speed Links per board.	N/A	Up to 4	Up to 8
Maximum SS7 links per unit	248		
Maximum SS7 link sets per unit	120		
Maximum M2PA links per unit	256		
Maximum number of SS7 routes	4096		
Number of separate network contexts	4		
Maximum number of SIGTRAN associations	256		
10/100/1000Mbit/sec Ethernet interfaces	6		
Transactions per second (required number of transactions vary; for example, sending an SMS typically requires two transactions while a location lookup requires one)	12,000 (provisional figure)		
MTBF (Using Telcordia method at 40°C)	191,000 to 367,000 hours, depending on type and number of boards in chassis.		

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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

Power

Input voltage	90 VAC to 240 VAC
Input power (fully equipped)	150 W
Frequency range	47 Hz - 63 Hz

Physical Dimensions

Height	1.69 in. (4.3 cm)
Width	17.11 in. (43.5 cm)
Depth	23.92 in. (60.8 cm)
Weight – fully equipped	28.7 lbs (13 kg)

Environmental

Operating temperature	+41°F (+5°C) to +104°F (+40°C)
Storage temperature	-22°F (-30°C) to +140°F (+60°C)

Safety and EMC

Global Approvals	Information about product declarations and global approvals: www.dialogic.com/declarations
Hazardous substances	RoHS compliance information: http://www.dialogic.com/rohs
Country-specific approval information	Global product approvals database: http://www.dialogic.com/declarations
Warranty	Warranty information: http://www.dialogic.com/warranties
Service plans	Dialogic® Pro™ Services information: 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

For a list of Dialogic locations and offices, please visit: <https://www.dialogic.com/contact.aspx>

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