Dialogic® DSI Signaling Interface Unit Based on Dialogic® DSI G51 Signaling Controller

Dialogic® DSI Signaling Interface Unit (DSI SIU) is a scalable, high performance telecommunications signaling controller, providing connectivity between the core SS7/SIGTRAN network and multiple distributed application servers. The DSI SIU can enable application developers to deliver high throughput signaling applications to market quickly and cost-effectively using standard IP connectivity. The DSI SIU also supports a wide range of call control and transaction-based signaling protocols, allowing worldwide deployment in both fixed and mobile networks.

Features	Benefits
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
Worldwide protocol support (ITU-T, ANSI, China, Japan, etc.); wide range of protocols for both telephony-based (ISUP and BICC) and transaction-based operation (SCCP, TCAP, MAP, ANSI-41, INAP, and CAMEL) as well as Global Title Translation and SS7 protocol monitoring	Facilitates global deployments and the ability to configure protocol variants at runtime
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
Event-driven asynchronous message-based Application Programming Interface that works seamlessly with other Dialogic® Distributed Signaling Interface (DSI) Components	Provides user access to low-level protocol parameters, allowing flexibility for application development under Linux, Solaris, or Windows

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Enables Broad Range of Applications

Applications which can be deployed with DSI SIU include standard network elements, such as SMS gateways, SMSC, SMS Routers, USSD gateways, GMLC, SCCP Routers, and EIR in addition to customized applications such as Lawful Intercept, Welcome Roamer, or Missed Call Alerts. The DSI SIU can also be integrated into solutions with Dialogic® PowerMedia™ Software Products.

Figure 1 provides an example of how an SIU based on Dialogic® DSI G51 Signaling Controller can be deployed in a service provider network.
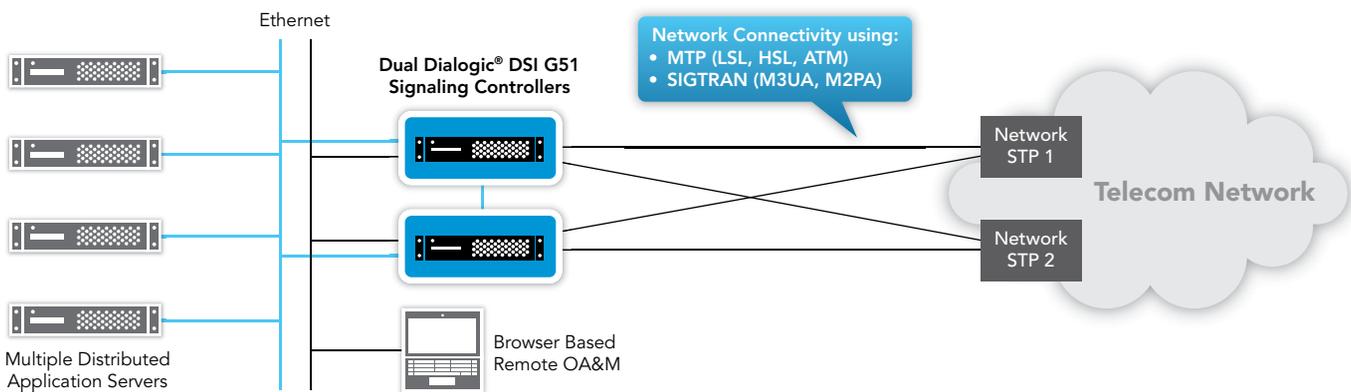

Figure 1. Dialogic® DSI G51 Signaling Controllers in a Service Provider Network

Offers High Availability and Flexible OA&M

The DSI SIU 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		
Number of hosts supported	128		
Supported host operating systems	Linux, Solaris (x86 or SPARC), and Windows		
Calls per second	20,000 (provisional figure)		
Transactions per second (TCAP, MAP, ANSI-41, or INAP/CAMEL)	30,000 (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.

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