

BUDGETARY QUOTATION AND TECHNICAL INFORMATION



8 PRI, 184 DS0 Channel Audio Logger
Recording and Playback System with 80TB RAID



184-CHANNEL 8x PRI AUDIO LOGGER

MIL-8T1 Complete network accessible audio recording system.....\$58,995.

This integrated system provides 184 DSO channels of logging and audio capture with a system-wide storage capacity of over 80TB. Four IBM servers and a separate, dedicated IBM workstation are included for audio editing, archival storage, and backup. The storage server is expandable to 128 drives and over 250 channels. All hardware and software is included for installation to existing audio sources in a typical NG911 PSAP, ATC, or commercial environment. The Infiniband disk array is expandable to over 250TB, keeping years of recordings on-line.

Recording Server Specifications

- Four independent dedicated dual processor IBM audio logging servers provide reliable non-stop recording. Additional channels may be added without server shutdown. Custom interface cards allow the use of two T1 tappers per server.
- A 24-channel USB audio capture unit with 40dB ALC on all channels provides the 64Kbps recording speed required to accurately reproduce conversations without distortion.
- A gigabit Ethernet interface connects to the local LAN for secure network playback.
- A 80TB Infiniband disk array system is provided for call storage. This array uses dual power supplies and 40 highly reliable 2TB FCAL hard drives in removable trays. Software RAID provides flexible redundant operation. The large storage capacity gives long-term online storage and eliminates time wasted searching through archival DVDs. Formatted capacity varies depending on RAID disk configuration.
- An Infiniband interface with support for up to 128 drives expands easily as recording needs grow. Additional storage may be added without shutting down the server. Fast and Gigabit Ethernet interfaces connect to the user LAN/WAN.
- Redundant hot-plug power supplies can be serviced with the system running. The failure of a single disk drive or disk power supply will not affect the recording performance. An audible alert sounds when service is required.
- A standard 25-pair cable connects directly to a customer-provided RJ-21x with analog audio sources.
- Dual 2TB internal boot drives are provided in removable cartridge trays for all servers.
- Four OEM Windows 2008 Server licenses with 5 Client Access Licenses assure network compatibility and conforms to industry standards. Security and playback permissions are easily controlled using standard Windows security.

Playback Workstation Specifications

- A separate IBM dual processor server ensures that recording is never interrupted by network outages or even when the editing PC is restarted. This unit offers playback, editing, and archival features. By locating the editing unit and logger on a separate network node, both recording and editing will continue uninterrupted throughout network outages.
- Dual archiving devices include both removable USB hard drive and a fast DVD+/-RW drive for reliable backups and rapid production of recordings.
- Dual 2TB internal boot drives are provided in removable cartridge trays.
- A separate switch is normally provided to ensure that Ethernet connection between the recorder and playback workstation remains available even during LAN/WAN outages.
- IBM electronic KVM switching permits convenient access to playback and recording units from a single 21" rack-mount LCD monitor and keyboard as well as remote locations.
- Capture unit, server, workstation, and all related hardware and options are shipped pre-wired and installed in a shielded locking 7 foot rack.
- A Windows 7 Professional operating system workstation license is included with the playback workstation.

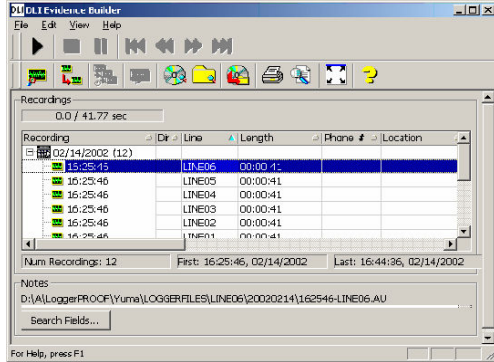
Physical Specifications

The system is provided in a standard rack-mount enclosure. Dimensions are: 85" height, 24.5" width, 37" depth. The assembled system weight is approximately 815 lbs. Crating and packaging add approximately 100lbs to the shipping weight.

Environmental Requirements

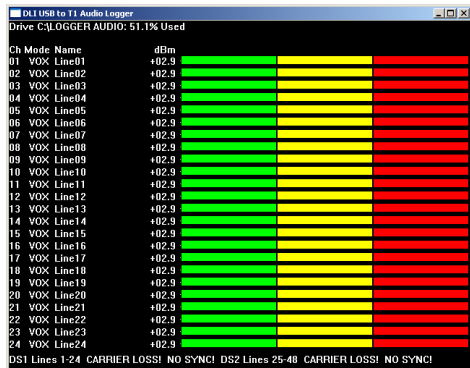
All hardware necessary to interface with a customer-provided, T1 or PRI lines within 25 feet of the logger is provided by DLI. The customer is asked to provide a completed pre-installation technical questionnaire. Adequate power, an Ethernet LAN connection, and a clean, dust-free installation environment with conditioned air are required prior to installation.

RECORDING AND CALL MANAGEMENT SOFTWARE



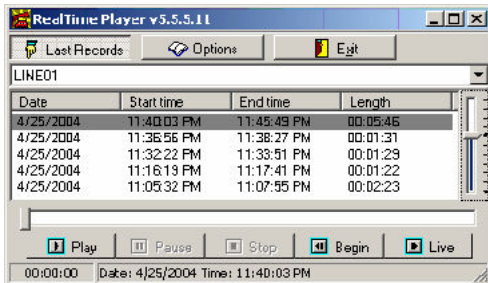
DLI Evidence Builder

DLI Evidence Builder software provides rapid scanning and instant access to call recordings. Evidence builder includes the ability to preview, concatenate, select, and transfer calls. One click sends recordings via email or starts audio editing. A site software license is included to permit installation of the software on all existing LAN/WAN workstations.



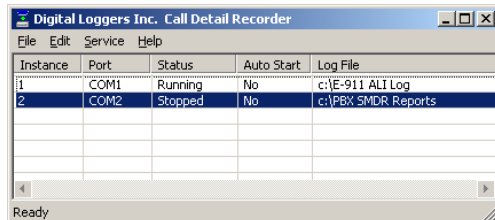
DLI Logging Application and Service

The DLI recording application ensures rapid recording to disk with high reliability and low latency. All recordings are digitally watermarked for full traceability. The application provides secure, reliable recording via multiple USB interfaces or a single VoIP connection. Disk space management allows the user to adjust the amount of storage used for each channel. USB Analog, T1, PRI, and VoIP recording interfaces are supported.



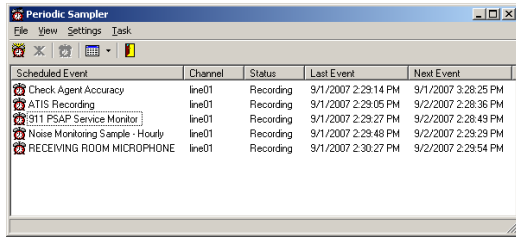
DLI Real Time Network Player

Listen in live from anywhere, in the office or around the world. Real time playback software is included with an unlimited site license for call check, remote monitoring and instant replay. Install as many copies as you like. There are no annual licensing fees or gimmicks on DLI software.



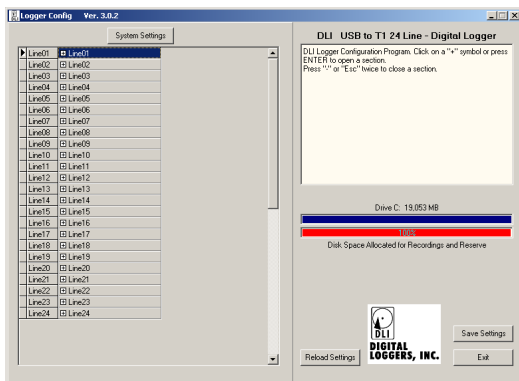
DLI SMDR / Call Detail Recorder

Our SMDR recorder runs as a service, logging PBX or ANI/ALI call data via RS-232 or USB. Multiple ports can be logged simultaneously and all recordings are automatically organized and time/date stamped.



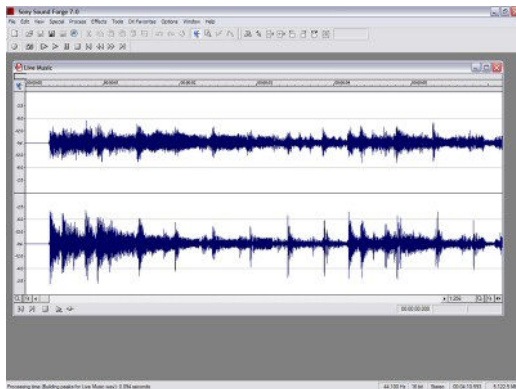
DLI Periodic Sampler

A sampling utility provides periodic monitoring of channels at preset time intervals. This is useful for call quality monitoring and radio monitoring applications, such as ATIS sampling. It's also commonly used with microphones and in ATC noise monitoring.



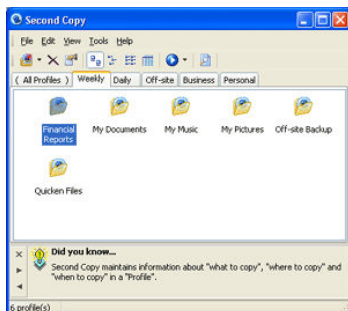
DLI Configuration Utility

Why call the factory when you can make simple changes yourself? DLI loggers are "open". A menu driven configuration utility allows the user to change channel configurations, disk settings, and view status from a single application.



Sony Sound Forge

Sony "Sound Forge" is provided for multi-track audio editing. A single seat license is provided from Sony. This application may be installed on the playback workstation or other networked workstations.



Second Copy Backup Utility

Second copy backup software makes it easy to copy selected recordings to external devices such as network servers, optical disks, fibre channel or USB attached backup storage.

Integrated nicely with our logging applications, this utility is perfect for off-site backup.



Complete On-Site Installation

DLI offers complete on-site installation services: A customer pre-installation survey is completed. The logger is configured at the factory per the customer's requirements. DLI securely packs and crates the logger with related accessories, tools and equipment. The crate is loaded freight prepaid, insured, and shipped at DLI expense via domestic 7-day truck shipment within the continental US. A DLI installation technician is flown to the site and performs an initial test of incoming audio lines and network. The logger is unloaded and installed to the customer's demark point. The DLI tech then installs the logger and assists in network setup and security. One additional day of on-site operator training is provided at no extra charge. This installation service is provided at a flat-rate of \$4750.

Standard Warranty

Standard warranty includes replacement of any defective hardware for a period of 12 months from the date of installation. Overnight cross-shipment of critical components is provided at no charge.

Extended Warranty with Software Upgrades

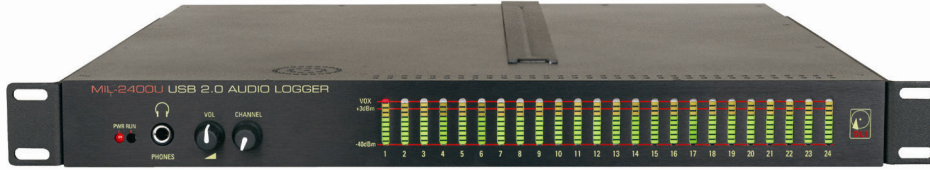
The DLI extended warranty is recommended for NG911, ATC, securities, and government applications. The extended warranty includes travel and on-site visits as necessary to maintain and upgrade the logger on an ongoing basis. An 800 number is provided for 24x7 extended warranty support. Periodic security, operating system, and application upgrades are included.

24x7 Monitoring and Rapid Response Service

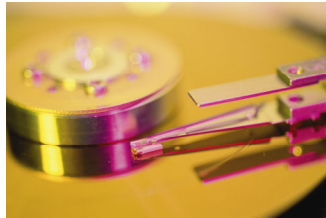
For mission critical recording applications such as ATC and E-911, DLI provides a pro-active rapid response and monitoring service. This service communicates through a secure link via the customer's WAN. The logger connects to a DLI factory server which monitors logger operation continuously to ensure non-stop operation of the recorder. Any disruption causing an interruption in recording or system alert, such as a power loss, network outage, erroneous upgrade, hardware or application error will immediately page DLI personnel who will take immediate corrective action. This cost of this service is just \$115/month when purchased in conjunction with the extended warranty above.

OPTIONS AND ACCESSORIES

Capture Unit / Server Upgrades



- Additional T1/PRI recording adapters with IBM server \$4100.
- ENS-10 emergency notification logger with IBM server \$5270.
- Redundant server for VoIP recording (250 channels)..... \$6100.



Hard and Optical Disk Drives

- External 2TBB USB backup drives..... \$ 219.
- Additional 2TB SATA drives with hot-plug carrier trays..... \$ 395.
- 4.7/9.4GB Multi-Format DVD+/-/-RAM Internal optical drives..... \$ 129.
- 4.7/9.4GB Multi-Format DVD+/-/-RAM external optical drives \$ 229
- 25GB Blu-Ray 5X internal optical drives \$ 295.



Infiniband Disk Array Upgrades

- Upgrade to add 20TB using 10pcs 7,200RPM 2TB drives..... \$ 7200.
- Upgrade to add 40TB using 20pcs 7,200RPM 2TB drives..... \$14000.

Amplified Microphones

- Wall mount noise canceling amplified microphone modules..... \$ 195.



Military Radio Adapters

- SINGARS/Harris/Motorola USB to U-229 logging adapters.....\$ 995.
- 8-Channel SINGARS/Harris/Motorola USB to U-229 logging adapters.....\$6100.



Line Conditioning and Connection

4-Line warning tone generator	\$ 149.
25 Pair punch-down blocks	\$ 15.
RJ-11 Harmonica, Octopus Cable, or 24-line panel	\$ 115.
Line voltage mute boards (4 channels per board).....	\$ 150.
Loop start line cards (4 channels per board)	\$ 150.
Automatic remote call forwarder	\$ 395.



UPS and Automatic Reboot

Rack mount UPS – 2200W	\$1100.
Extended run battery pack.....	\$ 675.
Remote Ethernet power control and reboot system	\$ 295.



Microsoft Server Software Licensing

Microsoft Windows 2003 Server Enterprise 25-User, per server.....	\$2300.
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Installation, Support and Training

8x5 telephone support.....	N/C
Complete installation package (see above).....	\$3750.
Installation and training (senior tech)	\$ 135/hr.
Premise wiring (wiring technician).....	\$ 65/hr.
Annual extended warranty with ongoing software upgrades.....	\$ 238/mo.
24x7 remote monitoring and support.....	\$ 65/mo.



COMPETITIVE RFP SPECIFICATIONS

Available in Word format from www.digital-loggers.com/bids.html

- System must support direct recording of phone lines, handsets, and radios without reconfiguration. System must support concurrent recording and playback, including playback of calls on all channels while they are being recorded. System must be capable of simultaneously recording 24 channels per recording module. Each recording module must operate independently of any playback workstation or archival device.
- System must include a real time player to provide means of redundant recording and playback of all recent calls via LAN/WAN workstations.
- System must provide a means of real-time playback without delay. Playback must remain operational regardless of server, LAN, or WAN outages.
- System must be capable of audio editing and concatenating across multiple files with the ability to convert to any standard audio format, including MP3, .WAV, G.723, etc.
- System must provide digital watermarking of all calls to establish a chain of custody. This watermarking must remain within the call recording file itself and be visible without proprietary software. The watermark must include a secure header and checksum within each audio file.
- System must provide a method to append an audible announcement of the time, date, and recording agency within the call recording.
- System must include a redundant disk array for fault-tolerant storage of recordings. The array must include a minimum of 10 drives and be expandable to at least 125 drives. A spare disk drive in hot-plug cartridge must be provided.
- This system must be expandable to sustain a minimum of 2 years recordings on disk array without the need to back-up to archival media.
- System must include Microsoft certified security to securely control access to recordings.
- System must include a server and separate playback workstation. Each CPU must have speed of at least 3.4GHz and a minimum of 8GB of memory.
- System must provide SAN connectivity for rapid backup and transfer of recordings to network devices including, DLT, DVD, or CD-R/RW media.
- System must provide a real-time, full-color graphic LCD display of activity and true VU levels on all channels at all times.
- System must permit simultaneous secure playback of an unlimited number of channels on at least five workstations via Ethernet connection.
- System must provide a true real-time playback of any or all audio channels which remains fully operational regardless of network outages, server shutdowns and updates, etc.
- System must support a minimum recording rate of 64Kbps u-law and a minimum of 40DB Motorola standard automatic level control to allow undistorted reproduction of voice, modem, and FAX data. A minimum recording quality of 64Kbps must be sustained on all recording and playback channels simultaneously.
- System must have an option to automatically compress recordings that have not been accessed after a period of time to conserve storage space.
- System must include software capable of scanning recordings for DTMF, caller ID, and PRI data.

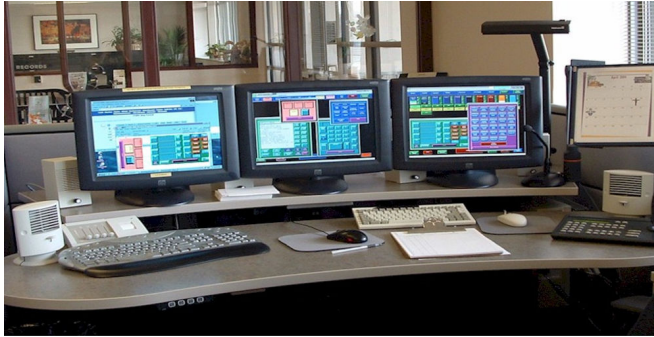
COMPETITIVE INSTALLATION RFP SPECIFICATIONS

- Supplier must provide packing, trucking, freight, delivery, and insurance at suppliers expense as necessary to ensure on time delivery to supplier.
- Supplier must provide an XML API specification to integrate logger information with user-supplied databases and applications under NDA.
- Supplier must stock replacement parts necessary to maintain the system for a minimum period of 7 years from the date of purchase.
- Prior to installation, supplier must perform a test of all analog and digital connections at the installation site including level and signal to noise measurements.
- Supplier must provide all hardware needed to mate with customer's RJ-21X analog demarcation point, Ethernet connection, and RJ-24 connection as applicable within 25' of installation point.
- Supplier must assist in security setup including the addition of user names and passwords, channel names, disk space settings, etc.
- A minimum of 8 hours on-site training must be included.
- Supplier must install audio workstation software on customer PCs which meet minimum requirements without "per seat" licensing fees.
- Only outright purchase will be considered. No annual licensing or usage fees will be accepted. Unlimited ongoing rights to use all software and hardware must be included in the overall purchase price.
- Supplier must offer an optional software upgrade service to maintain compatibility with future hardware and software. This upgrade service must be priced at a flat rate.
- Upon request, supplier must provide purchaser with liability insurance certificate with a minimum limit of \$1,000,000. Certificate must be issued directly by an insurer with a Standard and Poors rating of A+ or better. Certificate must be presented upon request to purchaser directly by insurer or agent. Certificate must clearly name purchaser as additional insured.

CUSTOMER REFERENCES AVAILABLE ON REQUEST



DLI employs 42 specialized employees in a 21,000 square foot manufacturing facility in Santa Clara, CA. We have served over 38,000 customers in our last 16 years in business. Our larger customers include the US Secret Service, US Navy, Army, the USAF, and the Federal Bureau of Investigation. References and resumes available on request



NG911 DISPATCH CENTER LOGGER CONNECTION

NG911 dispatch centers depend on audio logging for permanent recording of incoming incident calls, radio calls, and investigative work. Common configurations for NG911 recording are described below.

Direct Recording of Outside Lines

Most dispatch centers rely on a bank of several incoming outside analog lines for redundancy. DLI loggers offer a simple, direct connection to these lines. One advantage to this configuration is that each call is recorded continuously, even as the call is switched to different operators or departments within the dispatch center. Another advantage is that the logger will record everything said while the calling party is placed on-hold.

Recording Security and Dispatch Operator Consoles

Larger dispatch centers typically connect loggers to the recording output of the dispatch console *and* to the outside lines. The advantage to this configuration is that both the dispatcher and caller are recorded separately, even if the dispatcher switches between calls and radio channels.

Switched (Conference) Connection to PBX Systems

This configuration is most commonly used in investigative applications. In this configuration, a switch port is provided for each channel being recorded. The loggers are connected directly to an analog port on the switch. Speed dial keys or a supervisory mode are used to add the logging port as if it were a conference call. This gives the supervisor an easy way to control recording of specific calls. A dispatch center manager will typically use a few logger lines as flexible switched lines which can be assigned to any station set in the building.

Bridged Connection to Radio Receivers

Radio receivers may be directly connected to balanced line logger inputs. In trunked radio environments, it may be desirable to record both the individual frequencies and individual talk groups on separate recording channels.

SIP VoIP Recording

The DLI logging server can be used as a SIP recorder to log and record up to 250 VoIP H.263 connections. In VoIP recording mode, the server passively monitors the LAN by MAC address, automatically sorting the calls from each extension into separate recording folders. A single gigabit Ethernet connection is provided to the customer's voice network. For installations recording both analog and VoIP traffic, two independent servers will be provided.