

# IP Record Collection Overview

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## Collecting SMDR Records via Network Connections

Many newer PBXs can now include an Ethernet interface, along with, or instead of, traditional serial ports. The SMDR (Station Message Detail Reporting) records, alarms, and other PBX output previously collected via serial port, can now be collected over a TCP/IP connection via a reliable Ethernet interface.

## The Asentria DL150 and IPRC are Ideal for Network SMDR Collection

The Data-Link DL150 is an advanced data collection and alarm monitoring device that can easily and reliably manage network-based PBX systems, as well as manage and monitor other telecom and data devices and locations.

A new feature called Asentria IPRC™ (IP Record Collection), a program compatible with many popular network-enabled PBXs, enables the Asentria DL150 to collect these records quickly, easily and reliably.

Polling call records directly from an IP-based PBX doesn't provide all the benefits of a separate data buffer device. Data buffers add value to IP-based record collection in ways that call accounting server software cannot.

Even with the Ethernet's improved speed and reliability, a data buffer device is still important within an SMDR data collection system:

**Reliability** – Network-enabled PBXs offer little internal CDR (Call Detail Recording) records buffering. Just a short disruption between the PBX and the collection system can cause the loss of significant data. The DL150 can initiate a dial-out modem connection if the network connection fails, and its extensive buffer memory options can safely store SMDR records for hours or days, ensuring that call data is reliably collected and forwarded to the call accounting system despite any network outages.



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**Security** – Opening ports into the company LAN or WAN creates a serious security threat, making enterprise-wide access to network-enabled PBXs a challenge. The DL150's secure data collection methods via dial-up modem or FTP Push solve the problem. With enhanced security options such as IP Restrictions and data encryption, the DL150 can collect and transport data without threatening network or data security.

**Compatibility** – Each network-enabled PBX vendor has a different protocol for collecting data, requiring time and expertise to incorporate into any data buffering system. The DL150 addresses compatibility issues, providing standard "buffer device" command interface and protocols for fast and reliable installation and operation.

**On-Site Alarm Management** – The DL150 can evaluate Ethernet-based PBX record streams with familiar serial record alarm evaluation methods. It can notify managers of alarm records in real-time, even if the primary call accounting software cannot.

## Supports Popular PBXs

The DL150 supports Ethernet-enabled versions of Alcatel, Avaya, Cisco Call Manager, Aastra Intecom, Mitel and Siemens Hipath 4000 phone switches, and can communicate with other switches that support Generic TCP/IP sockets. Asentria can also quickly engineer a solution for any switches that aren't available off-the-shelf.

## Easy Set-Up

Asentria IPRC is enabled and customized in the DL150 set-up menu's "Networking" section, which is accessible by modem, network or via the local serial port. This allows the user to select the specific PBX supported, determine where IP records are stored, and enable data alarms as with any serial record input.

## Flexible PBX Record Presentation

In some systems, network-enabled PBX records look just like their serial counterparts. In other cases, the

DL150 extracts key data from individual fields of PBX database tables and builds a "record" to store in the DL150 buffer memory. The DL150 lets call managers specify which data fields are included in the record, and how the data are formatted. It can also convert data that is not formatted for text records (e.g. dates and IP addresses in binary code). This helps telecom managers to create records for call accounting, service quality or other applications.

## Security Features

IP records stored in the DL150 memory can be collected with any common record-polling method. Dial-up modem access eliminates network security issues associated with accessing the LAN via the Internet. The DL150 has a user/password table to limit access to files, ports and actions. The DL150 also supports secure callback to authorized phone numbers for better security.

If network access is preferred, a network transmission method such as FTP Push can be programmed to transfer stored records to a designated FTP server at set intervals, eliminating the need for incoming network access to the DL150. For additional security, records can be encrypted with DES (Data Encryption Standard), and IP restrictions can limit the addresses that can access the DL150.

## Alarms and Additional Features for Complete Network Protection

Network engineers and administrators can easily monitor many conditions at remote sites with the DL150's sophisticated alarm features. The device can monitor and report serial alarms, SNMP Trap capture, environmental conditions and equipment operation. With included Syslog support, the DL150 can collect records from UNIX devices and filter them for alarm conditions. If the DL150 loses its IPRC connection to the PBX, it can notify managers or service personnel via e-mail, pager or SNMP Trap.

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## Additional DL150 features for remote site management:

**Remote Serial Device Maintenance** – The DL150 can be a modem or Ethernet portal to other Telecom serial devices

**Dialup IP Routing** – The DL150 can support IP Routing via dial-in modem, providing a network connection backup if the primary connection fails

**Temperature Monitoring** – An optional onboard sensor can continuously monitor Telecom room temperature

**Onboard Contact Closures** – An optional onboard contact closure interface monitors contact-enabled device alarms

**External Sensor Support** – The DL150 can monitor up to 16 external Asentria EventSensors™ for additional environmental, contact closure, or voltage monitoring

**SNMP Trap Capture** – The DL150 can capture SNMP Traps from your PBX or other LAN devices and turn them into regular text-based alarm messages

**RS232 Pin Alarms** – Change of state of the connected serial port signals can set off alarm notification signaling cable disconnects

**Data Filter** – Incoming data can be filtered and discarded, reducing network processing requirements and maximizing storage capacity.

**Compatible Alarm Formats** – The DL150 can be configured to integrate with popular alarm management systems such as HP Openview™, Castle Rock SNMPc™, IBM's Tivoli Storage Manager and other SNMP products

**Audit Logs** – The DL150 can produce audit log records of all transactions it handles

**Serial Data Collection** – Collect serial data from other ports in addition to IPRC

## Save Time by Avoiding Unnecessary Programming

Call accounting software that can't poll an IP PBX still can poll a data buffer. Using Asentria data buffers and programming to communicate with proprietary PBX protocols saves our clients a lot of development time and cost. One service bureau customer saved months of in-house programming time by buying an Asentria data buffer with new Asentria IPRC™ capabilities.

## Controlling Access to your Network

Many companies use third-party call accounting ASPs or Service Bureaus to poll and process call records, and deliver web-based reports. The trick is to give service bureaus just enough network access to do the job, but no more. Asentria DL150 can send IP CDR to the service bureau via FTP push or dial-up access without allowing outsiders access to your network.

## Ensure the Delivery of CDR

The Asentria DL150 ensures reliable CDR records delivery regardless of network troubles, especially in multi-site applications with many potential failure points. The DL150 also can send an alarm when the PBX does not generate data for any reason.

## Asentria Data-Link Outperforms PC-Based Data Buffering

For call accounting professionals, losing data is like burning money. That is why Asentria developed its special purpose data buffer devices to guarantee retention of critical telecom data.

## Trust a Reliable and Stable System

Special purpose-built data buffers are simply more reliable than PCs. Every PC user has experienced unexpected lockups and crashes from unstable computers, and every malfunction threatens critical data.

PC's can also lose data "silently". Data records can be unknowingly corrupted by Windows serial port function problems. Field-proven and award-winning data buffers from Asentria are reliable, solid-state devices -- built with industry-leading design and construction.

### **Avoid the Pitfalls of Custom Programming**

PC-based buffering systems require custom programming. Trying to integrate CDR software with various PC components and a variety of system software can create many problems. Custom software requires continuing attention by an expert programmer. Every new Microsoft Windows or UNIX release, or any time application parameters change, may require recoding a custom buffering system. While the original programmer might be able to update the code, new programmers will be unfamiliar with the original code, making changes even harder.

Users are even less likely to find outside help if a PC-based buffering system has a problem that in-house programmers can't solve. PC software and hardware manufacturers' technical and warranty support will not cover custom data buffering applications.

Asentria Data buffers eliminate the need for on-staff programmers. Even non-technical users can quickly set up or reconfigure our data buffers by using simple menu choices, as Asentria software guides users through setting parameters for data collection, data transfer, alarms and other functions. Asentria technical support, and the company's decades of data buffering expertise is always available for timely, comprehensive data buffering solutions, using Asentria hardware and firmware.

### **Compare real costs of long-term solutions**

Although a PC-based buffering system is relatively inexpensive to set up, anyone who has created a custom buffering system will tell you that maintenance costs for hardware, software and reliability concerns grow quickly. The actual cost for a PC buffering system will always be many times greater than the cost of a dedicated data buffer. A field-proven Asentria data buffer, programmed by industry experts, extensively tested, and guaranteed with a full warranty and comprehensive technical support is actually an investment in a long-term data solution that will evolve with CDR applications. Asentria scalable upgrades ensure economical upgrades to meet any new application.

### **Data buffers offer simple installation and maintenance**

Asentria data buffers fit easily into call accounting systems because they were designed to. Asentria buffers have the interfaces to handle communication requirements specific to PBX data transfers and call accounting applications. Simple to install, Asentria data buffers enable sophisticated applications that go far beyond standard PBX data buffering. After installation, maintenance is limited to adjustments you can make yourself.

### **Additional benefits of Asentria data buffers**

In addition to simply protecting CDR data, Asentria data buffers offer multiple data ports, password protected access to connected equipment, multiple ways to transfer data, data compression, sophisticated alarm detection, multiple alarm notification modes, toll-fraud detection, complete network functions and protocols, SNMP notification, remote configuration, bypass capabilities to configure connected devices and much more.

