

County Leverages Telecom Accounting Into Far-reaching Network Management

“The use of pollable remote access units enable integration of phone systems with telecommunications management, plus system-wide access, monitoring and alarm notification that includes unmanned remote sites.”

Few telephone networks connect a user base that is involved in such a multitude of vital services as local governments. In Pierce County, WA, that includes a plethora of departments and agencies: Emergency Management, Sheriff’s Department, the jail, courts, public works, parks, Assessor-Treasurer, Auditor, Health Department, even a portion of the 911 call center. Because of its vital importance, the modern Pierce County phone system has enough redundancy, or backup built into the system to enable routing around problems that would cause outages.

“Of course, if you have part of the system down and don’t know about it, then redundancy doesn’t help you,” says Terry Schimon, Telecom Network Specialist for Pierce County. “So, it’s important to know when there is a problem, or even a change in status of a backup system that could compromise our telecom service. That is the principal reason why we have a series of powerful remote access units that collect network management data and guard against conditions that would threaten our phone system.”

The device to which Schimon refers is the Asentria Data-Link pollable remote access unit, a call accounting data buffer that solves TeleManagement applications by combining the functions of serial data collection, remote equipment management and alarm notification into one flexible unit.

“We installed 13 of the Asentria Data-Link DL880 units as part of the implementation of a new Avotus (formerly Switchview) Telemanagement Expense Management (TEM) system,” Schimon explains. “Initially the DL880s were used for basic CDR (call data collection), and for all of the Avotus integrations, which are very powerful, especially compared to the home-grown telecom billing system that we were replacing.”



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Schimon says that in the course of routine contact with Asentria, some factory support people pointed out that the DL880s could offer valuable added uses to the Pierce County system – uses that would be important to the 755,000 county residents as well as the 4,500 telecom users.

“We were able to use the DL880s in conjunction with the Avotus system for a lot of fault management and network management issues,” he says. “So, I began to consider the various remote capabilities of the Data-Link product, and thought some of those would be very useful.”

One of the areas was alarm management, for which Pierce County previously managed via dial-up modems. “Automating alarm access and notification were very significant,” Schimon says. “With the old system it was possible for the 911 system to be out of service without our even knowing it. With the need to be highly responsive to other emergency or otherwise critical services, the DL880’s alarm management capabilities could be very helpful to us.”

For example, the Data-Link device can monitor a serial port from a PBX or other devices for trunk failures, T1 outages, environmental conditions or power system problems. It will alert if expected data is not received within a specified time, or if the PBX is not working correctly. Alarm notifications can be sent to individuals or groups via printed messages, landlines, pagers, terminals or Internet connections.

“The Data-Link 880 units have six serial I/O ports, and we only use a maximum of four of them for the Avotus telemanagement system,” says Schimon. “That leaves me at least two, and sometimes up to four ports available for other devices that I need to manage at remote sites. Rather than having a separate modem and phone line for each device, I Telnet into the Data-Link unit and access whatever device is connected to it, whether a UPS, CSU/DSU, Voice Mail system or various

other types of telecommunications equipment.”

The county’s telecom UPS systems are connected to the Data-Link unit I/O port and alarm contacts, for instance. If a unit “sees” a problematic condition, it sends out a notification immediately. “If we get brownouts, surges, low batteries, system failures or a total AC power outage, the Data-Link automatically records the alarm in a storage file and then it and sends a message to my group to respond.” Schimon explains.

Although the DL880 model will monitor the above conditions, it will not detect conditions of excessive humidity, which tend to be a problem in the Puget Sound area where his system is located. This model also has a limited amount of external alarm contacts. For these reasons Schimon has ordered an Asentria Data-Link DL-150, which can monitor humidity, as well as add plenty of external contacts.

Two added concerns of Schimon and other Data-Link users are avoiding catastrophic equipment damage, especially at unmanned sites, and saving on maintenance overhead.

“Our Data-Link units allow us time to fix the problem or shut equipment down before the threshold where damage is likely to occur,” he explains. “Not knowing of high temperatures in our equipment rooms is a big deal, the heat can cause equipment damage and may even trigger an automatic shutdown of the equipment. Also, a backup battery system in alarm can only protect equipment so long before it shuts equipment down. To avoid the loss of telephone service, the system’s ability to notify us of alarms is crucial”.

None of the county’s switch rooms are manned, and there have been occasional high temperature warnings due to air conditioning failures at remote sites, all of which successfully set off alarms with appropriate notifications ever since the Data-Links were installed.

Schimon says he'd much rather be proactive than reactive about alarms, plus having remote monitoring and notification saves on having people traveling around to check all of the remote sites.

"Not having to send our maintenance people to remote sites to check equipment or conditions also results in labor savings," Schimon says. "And these days that is not something to take lightly."


Schimon adds that it is rewarding for his group to know when there is a telecom system problem even before a user contacts us. "Sometimes we'll even call our customer first to alert them of a problem that we are working on, and that hopefully it will not have much, or any effect on their services. They're usually surprised to hear about it and appreciate our notification. It's nice to be able to do that."

The Company

Asentria develops remote site monitoring and telemanagement solutions that enable providers of critical communications infrastructure to more efficiently and reliably run their networks. Asentria's products help ensure quality of service and lower operational costs, while making it easier to provision, maintain and support remote equipment. Our strategic solutions fit both large and small communication networks and provide high-value, cost-effective and competitive differentiators to our customers.

Asentria helps administrators cost-effectively manage their call reporting data and remote site infrastructure, while extending confidence and security to ensure availability, integrity and performance. Asentria enables administrators to avoid failures from poorly performing equipment that threaten end-user service expectations, while providing better control to predict the performance of remote infrastructure. These new levels of protection shield end-users from remote site equipment failure. Our service provider and enterprise customers trust their remote equipment

sites to Asentria. The company is headquartered in Seattle, Washington.

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