End-to-End IP Surveillance System enhances risk management at two Texas behavioral health hospitals

D-Link IP Surveillance Solution integrates audio and video and delivers an immediate ROI via risk reduction

**Background**

Millwood Hospital in Arlington and Hickory Trail Hospital in DeSoto are acute behavioral health facilities serving youth, adult, and senior psychiatric patients from 4 counties in North Central Texas. To enhance patient care and staff safety and training, the two hospitals – with the help of D-Link Systems and Preferred Technology Solutions (PTS) - replaced their existing analog surveillance system with an end-to-end IP-based surveillance solution. The new system provides digital video and audio surveillance and recording capabilities that have more than satisfied the stringent risk management policies of Universal Health Services, Inc. (UHS) – their parent Fortune 500 healthcare management corporation.

The Vision: High Risk Management through High Quality IP Video and Audio

At the Millwood and Hickory Trail hospitals, risk management and staff training programs play an important role in the overall vision of UHS, which includes creating a safe and effective environment for patients, employees, visitors, and the general public. Central to the success of these programs is a dependable, robust video surveillance system. Ongoing and new staff training as well as round-the-clock patient monitoring is crucial to improving patient care while reducing risk. Having an ineffectual surveillance system severely limited the ability of the hospitals to deliver the top-level training needed to fulfill their mission.

In addition, dispute resolution and litigation over patient handling in the facilities often hinged on inadequate picture quality and eyewitness accounts that resulted in higher legal fees and were limited in preventing future incidents through visual training. Also, both locations had experienced theft of hospital supplies and even an employee assault in the parking lot. Clearly, a dramatic change was required.

In an effort to boost their risk management program, the corporate office specified an expansion of the existing analog video surveillance systems at both hospitals – with very tight budgetary guidelines. Tracey Fox, IT Director for both facilities, envisioned an IP-based solution that could not only utilize their existing network, but provide higher image quality, flexibility, and scalability as video archival needs grew or new locations required additional cameras.

Fox knew he needed an experienced local partner that could not only deliver a high value, reliable IP-based system, but could assist with the installation and all the details of a project of this size. With their reputation for outstanding service, support and expertise in IP Surveillance, Preferred Technology Solutions (PTS) of Richardson, Texas was selected.

The Solution: Video and Audio Surveillance on a Private Network with IP Cameras, PoE switches and Storage

PTS recommended D-Link's high quality, high value end-to-end IP Surveillance solution which included D-Link Professional Services for certified installation and configuration. Fox and Facilities Director, David Sherwood, were particularly impressed with the system's ability to deliver high quality video even in low light areas, digital streaming, centralization, easy system management, and overall low cost of operation. Ultimately, D-Link was their clear choice.

Millwood and Hickory Trails hospitals now have robust, end-to-end surveillance networks founded on 250 D-Link day/night fixed dome IP cameras installed indoors in each of the hospital's four psychiatric units as well as in exterior courtyard areas and parking lots.

“Our corporate risk management people were amazed with the picture quality, and the infrared quality. We have a few rooms that are dark, and we can see just as good as if the light was turned on.”

—Tracey Fox, IT Director, Millwood Hospital and Hickory Trail Hospital

**Key Purchase Drivers**

**Professional Services**

From site survey to network diagram to certified installation and training, Preferred Technology Solutions and D-Link Professional Services combined to provide these hospitals maximum peace of mind.

**Image Quality**

D-Link cameras deliver crisp, clear images in a wide range of conditions – standard, high contrast, and night.

**Scalability**

D-Link end-to-end IP surveillance solution easily accommodates system expansion and relocations, and modifications.

**Flexibility**

With standards based products, the D-Link system integrated seamlessly into the existing network infrastructure.
The cameras run on private networks through D-Link’s xStack Gigabit Layer 2 Managed PoE (Power over Ethernet) switches, selected for their ability to handle the additional load of real time audio and provide both power and networking to the cameras installed in exterior courtyards and parking lots.

Storing the mandated 30 to 90 days of audio and video footage was achieved with D-Link’s xStack iSCSI SAN array. Using a 10Gbit iSCSI System-on-a-Chip (SoC) solution that can handle over 80,000 I/Os per second, it can support 30TB of raw capacity. Fox is able to easily add capacity by simply swapping mix-and-match drives in one of the unit’s expandable bays.

While special software modifications were required to support the audio feature, Video Insight, whose video management software was selected to manage the cameras, worked diligently with PTS and D-Link Professional Services to ensure uninterrupted dual audio/video surveillance.

Among the many beneficial features to the system is the remote access. Hospital staff, security and risk personnel can monitor activity anytime day or night from any location; even a smartphone with a secure connection to the internet.

Immediate Results Today: Built for the Needs of Tomorrow

Results of the new surveillance system were immediate and profound – from locating an unsupervised delusional patient to catching a parking lot purse snatcher, the legal fees saved through accurate audio and video footage have been significant.

Improvements in risk reduction as well as improved training and event resolution continue to add ROI to the D-Link/PTS IP Surveillance solution.

There are future benefits also. The flexibility and scalability of the D-Link system will easily accommodate the growth and change common in healthcare facilities.

“My key point in this whole thing was flexibility and scalability. The way this system is built, I can easily expand to meet future needs.”

—Tracey Fox, IT Director, Millwood Hospital and Hickory Trail Hospital

Having more than justified the cost of upgrading their antiquated analog system to a robust, end to end IP surveillance system from PTS and D-Link, Millwood and Hickory Trails hospitals are realizing the benefits of creating an environment that is safe, effective and profitable for all.

Featured Products:

<table>
<thead>
<tr>
<th>Cameras and Enclosures:</th>
<th>DCS-6111</th>
<th>DCS-6510</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage:</td>
<td>DSN-3200-10</td>
<td></td>
</tr>
<tr>
<td>Network Switches:</td>
<td>DES-3028P</td>
<td>DGS-1210-10P</td>
</tr>
<tr>
<td>Services:</td>
<td>D-Link Professional Services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Network assessment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Site survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Network installation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• SAN storage implementation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Remote consulting service</td>
<td></td>
</tr>
</tbody>
</table>

Call or visit the web address below for more information on the complete line of business products:

www.dlink.com | ipsurveillance.dlink.com | 888.331.8686 | Email: getmore@dlink.com