eircom

Case Study

"The Access Network copper infrastructure is the fundamental platform for the delivery of a range of services from basic telephony to the provision of ISDN and DSL broadband services. It will continue to be a delivery mechanism for these services for the foreseeable future."

Tom Mulvey, eircom Pressurisation Programme Manager

Monitronix Cable Pressure Monitoring – Greater Efficiency

Cost reduction, reduction in faults and remote monitoring units that are easy to install and use - three business issues that eircom wanted to address when it launched its search for a replacement cable pressure monitoring system for its Access Network. Over the last 12 months eircom has replaced its entire legacy cable pressure monitoring units with Monitronix's Cable Pressure Monitoring Systems.

Background

Prior to the replacement program, due to greater distances outside of the cities legacy remote monitoring units had to be polled by master units via a dedicated leased-line. Leased-lines are expensive and multiple modems were required. eircom personnel were spending a lot of time maintaining old monitoring units and peripheral equipment. There were a growing number of faults occurring and trouble-shooting was becoming increasingly costly and time-consuming.

In some built up areas there was a reliance on trunk or junction cables between large and smaller exchanges as a copper report pair was required for data retrieval of the transducer pressure readings from the legacy monitoring unit. Where the junction cables had been retired some smaller exchanges were left unmonitored in these 'copper islands'. Instead of having the copper report pair wired back to the main exchange directly, remote monitoring units had to be installed in the smaller exchanges and leased

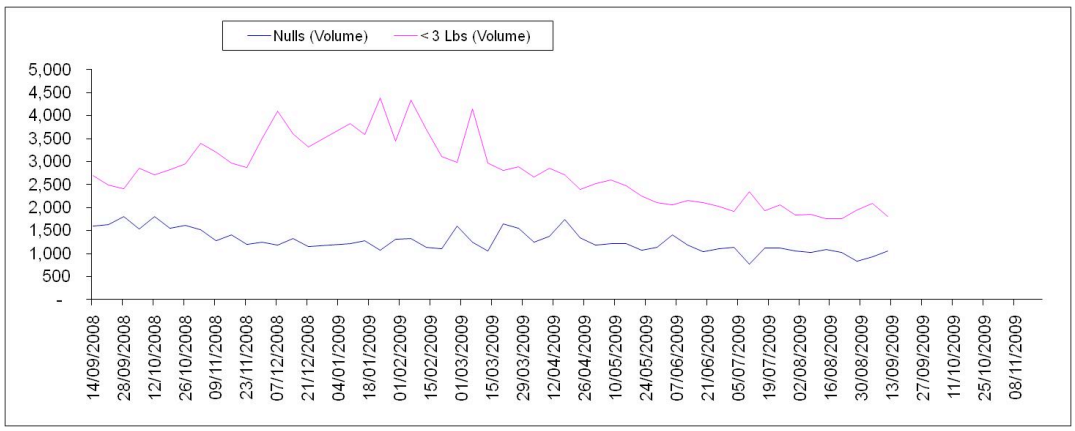
lines were required so that the data could be retrieved by the master unit. This option was becoming cost prohibitive.

eircom required a monitoring system to match this changing infrastructure. eircom also needed a remote monitoring unit that was compact, easy to install, and didn't require a leased line for data retrieval. Monitronix's remote monitoring units have provided this solution. The legacy configuration consisted of four cards installed in a rack in the remote exchange with an external modem attached to a leased line to allow polling from a master unit comprising of another two cards and a modem. This configuration has been replaced by Monitronix's small, compact, wall mounted RMU that has an internal modem built in without the requirement for a leased line. Now staff can configure the frequency that the unit is polled by a central monitoring system. Typically pressure readings are updated on the central monitoring system once an hour, but this can be less or more frequent depending on the manager or staffs' requirements. These units also have built in IP functionality to allow for connection to eircom's LAN and almost instantaneous updating of pressure readings.

"In a recent migration across seven exchanges 682 transducers were transferred from old legacy equipment. This resulted in a reduction in faults from 71 to 7, an improvement of 90%."

Tom Mulvey, eircom Pressurisation Programme Manager

This cost effective solution – a fraction of the cost of the legacy system – has also allowed eircom to bring 43 new exchanges that were previously unmonitored onto the monitoring network between February and July 2009.



Since 14/09/2008 transducer Nulls ("No Answers") have been reduced by 550, while transducers reading less than 3 lbs of pressure have been reduced significantly from a high of 4,393 on 23/01/2009 to 1,804 on 13/09/2009. These results coincide with Monitronix RMU and DFP installations.

"Improving the reporting of faults assists the pressurisation teams in focusing on actual system leaks and reduces wasted time spent on a faulty monitoring network."

Tom Mulvey, eircom Pressurisation Programme Manager

Digital Flow Panels – Cost Effective Monitoring Of Small Exchanges

Ultimately, pressure readings from transducers installed at regular intervals in the Telco's network give the greatest picture of the state of health of the cables. Pressure monitoring is an effective and proactive maintenance tool. To bring previously unmonitored, small exchanges (2,000 working lines or less) onto the monitored network, eircom has introduced Monitronix's Digital Flow Panel (DFP) into these exchanges as a cost-effective, complimentary enhancement to pressurised cable network monitoring.

By taking only half a day to install and commission a DFP, small exchanges were added to the monitored network quickly. That's why retrofitting pressure machines with DFPs in small, previously unmonitored exchanges makes sense. DFPs are used to replace old, mechanical flow meters that require visits to the exchanges to take manual readings. Now the flow readings of up to 10 cables per panel and the total panel pressure are displayed both locally and remotely on the overhead system. eircom managers and staff can immediately see the air flows on cables in each of these exchanges. Now eircom has full visibility of previously unmonitored pressurised cables.

So, without pressure transducers installed initially in the cables, eircom can identify the cables needing the most urgent attention. eircom can then deploy maintenance staff to work on cables where the rate of flow is high which is indicative of a leak in the cable.

"Metrics used to evaluate performance of our network are now more accurate and include previously unmonitored exchanges and cables."

Tom Mulvey, eircom Pressurisation Programme Manager

By addressing eircom's business issues Monitronix has provided a solution for all of eircom's pressurised exchanges.

www.eircom.ie

- The principal provider of fixed-line telecommunications services in Ireland.
- Approximately 2.6 million fixed-line telephone access channels in service.
- 68% market share of the Irish fixed-line market in the quarter ended June 30, 2008, based on turnover.

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