

Irish Regional Hospital reduces costs with Citel VoIP solution

Re-using existing handsets and wiring saves time; eases shift to VoIP for hospital employees

"The Citel/Diacom solution has given the hospitals a resilient, cost-effective solution, with no single point of failure. We have been able to reduce expenditures for the hospitals by re-using their existing their existing handsets, while benefiting from VoIP features including voicemail and integration with the hospital paging system" – Oran Maher, Managing Director, Diacom

In the government sector, there is pressure on all organizations to reduce costs – while maintaining or improving services. This is particularly true in healthcare, where an ageing population and new technologies are putting increased pressure on budgets.

One area where substantial cost savings can be made is in telecoms. By moving to Voice over IP (VoIP), call costs are slashed and users can benefit from unified communications features, such as being able to dial directly from their PC-based address books.

An organization that recently undertook the shift to VoIP is one of the larger regional hospitals in the South of Ireland. The hospital has more than 500 beds, and provides a broad range of medical and surgical services.

The Health Service Executive, the responsible department of the Irish government, issued a tender to upgrade the hospital's telephone system. A fundamental requirement of the tender was to re-use the hospital's existing Siemens optiPoint digital handsets to minimize cost.

With a multi-billion Euro budget deficit that needs bringing under control, the Irish government has been forced to bring in large spending cuts, which means that cost reduction is a priority for the country's public sector organizations.

Re-using handsets

Diacom (www.diacom.ie), one of Ireland's leading telecoms solutions providers, responded to the tender with a proposed system based on a Tadiran VoIP PBX and the Citel (www.citel.com) Portico™ TVA™. The TVA™ enables existing phone cabling and digital (PBX), P phone (Centrex), or analogue handsets to be used with VoIP systems.

A Tadiran Coral Sea Softswitch VoIP telephone system was installed with four separate voice servers to ensure continuity of service for the hospital should one, two or three of the servers fail. Citel worked closely with Tadiran and Diacom to optimize the feature set for the hospital and ensure full interoperability.

The regional hospital, which includes the main hospital and two satellite hospitals selected the Citel solution proposed by Diacom because it enabled it to retain estate of digital phone handsets, thus avoiding the necessity of purchasing new VoIP handsets and PoE LAN switches. It also saved the hospital the cost and disruption associated with installing new Category 5/6 cabling throughout the campus.

All three hospitals are interconnected over an IP network. Approximately 1100 digital handsets are deployed in the main hospital, linked to the VoIP system by 46 TVAs. There are 24 digital handsets in the first of the satellite hospitals, connected by a single TVA, while 36 digital handsets in the second of the satellite hospitals are linked to two TVAs. Furthermore there are approximately 300 analogue phones throughout the campus, which are also supported by the solution.

Life and death reliability

As a hospital, the regional hospital has to ensure the highest standards of reliability in its telecom system – not being able to make a phone call could literally be a matter of life and death.

To maximize resilience, the Citel solution provided by Diacom includes two Tadiran voice servers in the main hospital and one each in the smaller facilities. The voice servers are configured as a cluster with N+N resilience across the campus, which means that if the main hospital server fails, the two satellites would pick up the load and vice versa. In the event of a failure, the handsets simply re-register to a different server, ensuring that the hospital staff can still make and receive calls.

The hospital has also deployed 70 Tadiran VoIP phones, which are independent of the TVAs. These are placed strategically across the campus to give an extra level of resilience in the unlikely event that there is a problem with the TVAs.

The Citel/Diacom solution gives the hospitals a resilient, cost-effective solution, with no single point of failure. Expenditures for the hospitals have been reduced by re-using their existing handsets, yet giving their users the benefits of VoIP features including voicemail and integration with the hospital paging system.