Polycom mobile telephony solution enhances communication and improves efficiency at Campus IFOM-IEO

A Polycom DECT wireless telephony solution is providing comprehensive roaming telephony coverage throughout the campus at the Campus IFOM-IEO in Milan.

The Challenge
To provide key users at the institute with a roaming telephony service that would enable reliable communication at all times wherever they are on campus.

The Solution
Polycom's wireless telephony solution based on its KWS6000 server interfacing with the Institute's Asterisk IP/PABX and supporting up to 30 Polycom Kirk DECT 4020 wireless handsets.

The Results
A more accurate, reliable and convenient communication solution that fits in with users' work practices and enhances efficiency in their respective jobs.

Milan-based Campus IFOM-IEO is a new biomedical research centre committed to scientific research into the causes and cures of cancers. The Campus benefits from numerous interactions with other scientific and medical organisations and hosts many national and international seminars on all aspects of oncology.

The Campus covers 24,000 square metres (2.4 hectares/6 acres) and houses seven large, multi-story buildings and several smaller ones. Before deploying the Polycom solution, the Campus has relied on a VoIP network to meet its internal communication requirements. However, due to the burgeoning size of its user population and increasing demands for mobile communication, this has had to change.

Since the merger of IEO (European Institute of Oncology) with IFOM (The FIRC Institute of Molecular Oncology) in 2007, increasing pressure had been placed on communication and security at the campus. It rapidly became apparent that a new, reliable communication solution had to be deployed that would meet the requirements of this larger and more complex population of users.

Alessandro Dellavedova, IT Manager of the Department of Experimental Oncology of IEO in the Campus explains: "The merging of the IT infrastructure of the Department of Experimental Oncology and the IT infrastructure of the IFOM in the Campus, which took place in 2007 created a complexity of communication networks that were obviously not meeting everyone's needs satisfactorily. On the one hand, we had old-style DECT phones on a wireless network that didn't deliver telephony, running in tandem with our established VoIP network. Neither gave us the coverage or the functionality our users demanded."

Apart from coverage, the main requirement for any communication solution for the Institute was that it should interface easily and completely with the Institute's existing Asterisk IP/PABX server.

With favourable previous experience operating Polycom desktop video conferencing solutions, Dellavedova and Campus IFOM-IEO IT Director Andrea Cocito agreed to research Polycom's telephony solutions. After referencing systems Dellavedova and Cocito decided on the KWS6000 mobile telephony solution.

"The solution is quick and easy to deploy with rapid user uptake."

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"It was obvious that mobile telephony was the right solution for such a large and diverse campus," Dellavedova continued, "but we had to be reassured that our issues of coverage and reach were successfully resolved."

Luckily for the two IT experts, Polycom had released a beta version of the solution, at that time called IP6000, that was available for testing prior to deployment. This was a critical deciding factor in adopting the Polycom solution. The beta version comprised one KWS6000 server and two base stations. The deployment took place over two working months between July and September 2008 during which time various issues were resolved so that the system was operating to the Institute's satisfaction.

"At first we had problems of coverage which had to be resolved, but by working hand in hand with Polycom, we found that we could fix this by relocating the base stations until optimum reach was achieved," Dellavedova recounted.

Because of interference with heavy laboratory equipment and associated wiring, this meant simply moving the base stations from the ceiling, where they were initially located, to a suitable wall.

In October 2008, the full KWS6000 system, comprising 20 bases stations and 30 Polycom Kirk DECT 4020 handsets, was subsequently rolled out across the campus.

Polycom's KIRK Wireless Server 6000 consists of the KWS6000 server, KIRK Media Resources, KIRK Base Stations, KIRK Repeaters and KIRK 4020 Handsets. Some of its many benefits include seamless handover between base stations, extensive radio coverage, messaging to handset, value added applications and immense scalability of up to 256 KIRK base stations and 4,096 wireless users.

"The fact that the handsets are 'transparent' to our Asterisk server meant that it was easy to add extra handsets to the system as and when we needed them," Dellavedova enthused. "It makes the whole solution quick and easy to deploy with a rapid user uptake."

There are three categories of users on campus, with three different sets of requirements. The first are the two laboratory managers who need to be constantly available to laboratory staff for best practice and procedures advice, regardless of where they are on the campus. This is achieved via the VoIP (voice over Internet protocol) network direct to the manager by dialling the remote handset extension number. That way, wherever the manager is on the Campus, he can address best practice issues and advise laboratory research staff on matters that demand immediate attention.

"With the new roaming telephony solution, we establish a reliable, on demand communication network that puts our personnel much more in control."

The second group of users are the service engineers that include plumbers and electricians. There are eight of these maintenance personnel currently using the Polycom roaming telephony solution whose job it is to maintain contact with laboratory staff who may have urgent equipment servicing requirements. This could be anything from a faulty freezer that requires immediate remedial attention before valuable bio-samples are corrupted – to a centrifuge that has blown a fuse.

The third group of users, numbering approximately five, are the security personnel empowered with the task of maintaining access and emergency security at all times. Their role is necessarily roaming. They have to maintain contact with one another while checking fire doors and security access throughout the extensive campus.

After several months of operation, users and the two IT experts thoroughly endorse the Polycom solution.

IT Director Andrea Cocito concluded: "With the new roaming telephony solution, we have established a reliable, on-demand communication network that puts our personnel much more in control. Thanks to its proven scalability, we are already increasing our user population to thirty and will have no hesitation in upgrading further as the situation demands. We are very happy with the Polycom wireless solution."

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Rev. 0309