



security

IP communication systems leads to innovation in residential access control

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The turn of the 21st century ushered in a wave of innovation that has brought together several legacy applications onto the IP network. Since Cisco Systems shipped its first IP telephone set in September 1999 as part of its voice/data/video integration strategy, technology developers have engineered solutions that offer cost savings and

productivity benefits through consolidation over powerful switching platforms. The universality of IP networking has allowed savvy integrators to bring together security, access control, and surveillance solutions for efficiency and ease of use in the single residential and multiple dwelling environments.

Several surveillance manufacturers have made the leap to IP technology from conventional CCTV solutions with dedicated coax cabling and standalone video servers. However, most of these solutions do not take full advantage of the capabilities of a converged IP network for building access control. Systems that require a computer and/or a monitor for



Shown is a Cisco IP phone with LCD color screen and soft key controls.

the resident to view building visitors present added equipment and maintenance expenses as well as aesthetic concerns.

Systems such as Cisco's Unified Communications Manager provide the basis for a fully integrated video surveillance and access control solution over the IP network. Through an intelligently architected solution, all visual and physical controls are distributed to one common endpoint – the IP phone.

For the building visitor, the process to gain entry into the residence is unchanged. He or she presses the button on a single or multiple tenant door call box to initiate voice communication with the tenant while the event is captured on video. On the tenant end however, integration of the physical access control system with the Unified Communications Manager provides an enhanced and more user-friendly experience. Rather than streaming video to just one centrally located terminal, access control can be handled at any IP phone throughout the residence.

How does it work? Surveillance cameras positioned at entrances and around the building are connected to the Cisco network switch, which provides voice, data, and video services. The switch can provide power for pan, tilt, and zoom (PTZ) on cameras that are specified for Power over Ethernet (PoE). Through an intermediary solution, the IP surveillance video signal is presented to the IP phone, or endpoint. When the call box button is depressed, a direct call is launched to the tenant residence phone or "extension." If the resident has more than one phone, the system can be programmed to ring all handsets.

Once the tenant picks up the call, the video signal from the entrance can be displayed on the handset's LCD screen in the form of a live video stream or a JPEG still frame capture. Still images can be refreshed by touching a soft key on the phone's LCD display. An "open" soft key can be depressed to grant building access. The use of soft keys can reduce the possibility of security lapses due to entering an improper numeric code that results in the wrong door being unintentionally opened.

The age of the converged network has given us almost limitless possibilities in the advancement of building technology. Integrating a Cisco unified communications system with IP surveillance and physical access control is one solution that provides cost savings, efficiency, and ease of use.

Converged Network Solutions

Integrating voice, data, and video over the IP network

Cisco Unified Communications

Unified Communications Manager for Business and Tenant Applications
Unified Communications Manager Express
IP Contact Center

Residential and Commercial Access Control

IP Surveillance Solutions

Axis Communications

Digital Media Signage

Data Center & Virtualization

