



## DEVELOPMENT OF COMMUNITY SECURITY PANEL

### THE CLIENT

The client is a market leader in hardware and networking sector.

### BUSINESS NEED

The client envisaged to develop a community security panel (Suite Panel) based on Atmel's ARM 9 micro processor AT91SAM9263 and running on embedded Linux and the sensor interface board for the panel. They wanted a powerful security panel with built-in Ethernet for communication with a central security desk, an LCD for alarm and status display, secured login and a keypad with pre-defined hotkey functions. The client also wanted to implement voice communication over Ethernet using same cable infrastructure for voice and data.

### TECHNOLOGY USED

- ⦿ ARM 9 AT91SAM9263
- ⦿ Ethernet, SPI, LCD
- ⦿ Voice over Ethernet
- ⦿ Audio codec
- ⦿ Linux and C
- ⦿ PADS and Orcad

### SOLUTION DELIVERED

- ⦿ The security panel is designed around Atmel's ARM 9 processor AT91SAM9263. The product consists of mainly the CPU board and the I/O board.
- ⦿ The main board with the Atmel CPU has following interfaces:
- ⦿ Memory-SDRAM and Nand Flash, Serial and SPI interfaces, Character and graphic LCD, Audio Codec interface, keypad, speaker and Microphone, 10/100 Ethernet.
- ⦿ The I/O board has sensor interfaces for interfacing 8 zones to the security panel and relays for alarming the 8 zones. The sensor logic detects not only the sensor activation but also sensor tamper making it a fool-proof security pane. The panel operates on TimeSys Linux 2.6 Kernel.



### BUSINESS BENEFITS

- ⦿ Centralized control on security
- ⦿ Embedded Linux Compatibility

#### ABOUT AL TEN CALSOFT LABS

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