



Network Video Recording for High Definition (HD) Surveillance Systems

Industry:

Security and Surveillance

The Customer:

The customer's primary business segments are broadband communications, storage semiconductors, wireless infrastructures and fiber access equipments. Its operations are spread over North America, Europe, Israel and Asia, serving customers across the globe.

Through a Multi-Service Processor, the customer wished to come out with a reference design for security and surveillance applications and hence, worked with eInfochips to leverage its expertise in video and security/surveillance

Project Overview:

eInfochips not only carried out the execution of the project but also provided the consulting services on Video and Security technologies to the customer, the giant in the Networking domain.

eInfochips' has developed NVR server/ Hybrid NVR reference design based on two processors: TI DaVinci HD processor DM6467 – DVPB HD - of eInfochips and a Multi-Service Processor of the customer.

Besides a stringent deadline, the project had many more challenges including understanding the complex project requirements, preparing a feature-rich demo for the end customers, close co-ordination with the customer team on common modules and delivering the highest quality all the time.

Key features:

- Multi (>10) channel hybrid NVR
- Audio and Video capture Inputs from DVPB-HD and IP cameras to ensure the compatibility of various inputs
- Resizing of video from resolution D1 to CIF
- H.264 AVC video and G.711 audio encoding
- Multiplexing of audio and video into container format (MP4) before their storage on the customer board
- Decoded video channels merged to a single video frame and sent to live HD display on DVPB-HD
- Multi (>10) H.264 and Multi (>10) G.711 streams for live display on DVPB-HD
- Keyboard interface for menu browsing
- All the communication done through PCI interface
- Support for OSD and playback functionality

eInfochips' Role:

- Design and Development of DVPB-HD responsible for
 1. audio/video capture, encode and sending data to the customer board over PCI
 2. audio/video decode, merging and sending video frame for display and playback
- Development of customer board (based on the customer's processor) application receiving audio, video data from capture boards, performing storage and sending received audio video data to display board for live streaming
- Interfacing DVPB-HD and the customer board
- Design and Development of user interface having key-board



Case Study