Closed Circuit Television Technology Handbook

Closed Circuit Television (CCTV) systems have been on the market for over fifty years, existing primarily as commercial off-the-shelf (cots) products and technologies. They are integrated into a wide range of security systems for not only surveillance, but also for access control and for forensic use in determining the origins of criminal activity.

The CCTV Technology Handbook, published by the Space and Naval Warfare Systems Center (SPAWARSYSCEN), Charleston, provides emergency responders, law enforcement, and security professionals with a reference containing brief summaries on current CCTV technologies, capabilities, and...
limitations. In addition, the handbook explains the theory behind CCTV development and describes the components in a CCTV system as used for access control, surveillance, and forensic applications.

The technologies described in the handbook include cameras, lenses, transmission systems, monitor, and multiplexers as well as a section on considerations in selecting a CCTV system. The handbook provides a short history of CCTV and a brief discussion of emerging CCTV technologies.

A vendor/product matrix is provided identifying the associated technologies used in the market research and vendor contact information, but it is not intended to be an all-inclusive list of equipment suppliers or models. In addition, a glossary and an acronym list is provided at the end of the handbook to assist the reader with the terms found in the handbook.

Information on specific sensors and manufacturers was derived, in part, from information received in response to a request for information placed in the Commerce Business Daily, posted on the FedBizOps.gov Web site on October 21, 2004. Additional research was conducted using the Internet, security conferences, and trade shows to gather information on available CCTV technologies, products and vendors. Limited direct contact was made with government, civilian, and vendor personnel to further research process.

No assertion is made that the handbook is comprehensive in its breadth or depth. It is introductory-level information and should not be considered definitive in planning or implementing a CCTV system. Such efforts should be undertaken only in consultation with organizations experienced in the various phases of planning, constructing, testing, operating, and maintaining comprehensive CCTV systems for access control, surveillance, or forensic applications.

Vendor information was not altered or edited. The United States Government did not conduct independent tests of any of the CCTV products or systems and does not warrant, guarantee, or endorse any of these devices. CCTV technologies under development or restricted to military use are not included in the handbook, while emerging technologies related to CCTV applications are discussed briefly.