NetWatch®

Intelligent Surveillance Systems for 21st Century Asset Protection



Developed by AR&T Ltd 'NetWatch' is a suite of networked intelligent video surveillance products providing security conscious organisations with the all tools needed to manage IT based CCTV security.

The use of Intelligent Video Systems will eventually transform the way companies and governments protect high value assets. The realisation that machine 'visual intelligence' can be more reliable and cost effective than humans for routine surveillance will enable users to reduce surveillance budgets and increase the effectiveness of response teams and prosecutions.



NetWatch modular, is scaleable, 'networkable' and enables the worldwide exchange of high quality digital surveillance video. It provides an essential surveillance system management structure to assist in combating crime and terrorism.

The NetWatch suite of products users have quarantees end fully а compatible system, able to detect incidents, to communicate with, and transfer video data to all required locations without loss of quality or data integrity.

Surveillance Control Station (SCS) provides the human interface with NetWatch servers; Surveillance Control Stations enable operators to control all system functions and to view all live and recorded video. They also provide tools for camera control, downloading video, audio communication, map functions, and server configuration and maintenance.

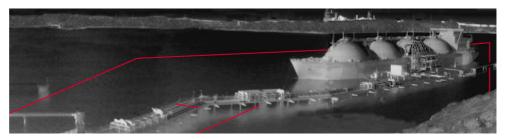
Each remote server maintains its own event logs, recording the operational status of all its cameras and hardware. The SCS provides operator access to these event logs enabling maintenance and system audit.





Motion Image Separation Technology (MIST) a reliable and sophisticated object detection and tracking system providing an early indication of intrusion from objects (including people) entering or moving through restricted areas or routes. The system detects and tracks objects that obey a set of qualifying rules. When these objects cross 'Virtual Trip Wires' placed in the video image by the system administrator, the system raises an alert for the operator and gives a clear and precise visual presentation for the cause of the alert. The picture shows the thermal image of a boundary fence protected by 'virtual trip wires' draw into the NetWatch MIST view. Also available in a rapid deployment version – **MIST-RD**

Sea Ranger - enables new levels of intrusion detection for Coast, Ports, Docks and Harbours. Using a combination of standard vision and thermal imaging cameras, 'Sea Ranger' detects and tracks all moving objects in the cameras fields of view.



Sections of sea and dock areas can be designated 'restricted'. The area enclosed in the red lines in the picture shows the concept.

NetWatch^â Intelligent Video Systems





Camera Interface Servers (CIS) capture video from cameras and streams video data to local storage devices and the network. Operators at Surveillance Control Stations have control over any number of CIS units and can command them to: control active cameras, download current and historic video data, control the Visual Motion Detectors, update the Alarm Status lists etc. Camera Interface Servers also provide physical interfaces for PTZ control, Eternal Alarm Inputs, External Alarm output, Audio devices, Local Area Networks, ADSL and PSTN Networks etc.

Video Data Servers (VDS) provide a networked archive of video data allowing any Surveillance Control Station to replay or download historic data (typically: from a few seconds old, to many months). VDS's are employed to provide a data backup increasing system availability. They are used particularly where the primary CIS may be at risk from criminal damage or where radio networks may be temporarily unavailable.

Automatic Number Plate Recognition (ANPR) Developed by AR&T for site traffic management, the system is fully compatible with the NetWatch suite of products - using the NetWatch 'Surveillance Control Station' for the human interface. The system identifies and reads car number plates on vehicles in motion and provides alphanumeric output data from the source video. This data can then be compared with user data for correlation. Depending on the rules applied, vehicles may then be admitted or stopped by automatic barriers. Vehicle presence at sites can be verified as they can be automatically logged in and out.



Video Wall Servers (VWS) route selected video directly from CIS's or VDS's to selected video wall screens. Screen views are set from Surveillance Control Stations configured with the appropriate privileges. Video Walls need not be directly connected to the associated SCS, they can be located anywhere on the network, enabling remote viewers to access current and archive video under control of the associated SCS. Each screen can display multiple images of 1, 2, 6, or 9 camera views. Any number of screens can be used.

Video Editing Work Station (ViEWS) this software can reside on the SCS or on a separate workstation. It enables video to be viewed, enhanced and edited 'off line' in preparation to be used as evidence. Clips can be created and 'Personal Privacy' editing can be accomplished. In addition, a ViEWS workstation can perform video format conversions.

Video Replay Software (VRS) part of the **ViEWS** package VRS enables video captured on a NetWatch system to be viewed 'off line', mainly to facilitate replay of NetWatch video data to authorised third parties such as police and in courts of law. VRS is distributed under licence, but free of charge, in order not to inhibit the free exchange of authorised video data.





Evidence Submission Manger (ESM) an optional part of the ViEWS software provides the management and database tools to maintain and demonstrate compliance with the Data Protection Act in relation to surveillance systems. It contains all the features of NetWatch ViEWS, produces video evidence on CD or DVD media and provides a full audit trail of all actions and processes undertaken up to the point of release of the media to third parties. ESM produces all release forms, receipts, CD labels and management reports up to, and including closure of the incident where this is appropriate.

EyeLynx provides an entry-level to Networked Digital CCTV, allowing small businesses and shops to benefit from the infrastructure provided by larger Town Centre or corporate schemes. EyeLynx is fully compatible with the NetWatch Suite of products and can improve the effectiveness of surveillance at commercial sites of any type.