

# Mobile Application to Operate Surveillance Cameras

APPLICATION NOTE

## OVERVIEW

Our client's Remote Surveillance Cameras are standalone devices which do not need any computer at the camera site for normal operation. Any computer, PDA or cellular phone connected to the Internet may be used to browse the images. One can view the camera site from anywhere around the world by simply installing an application software on the desired device and establishing connection with the camera.

Each camera is assigned a unique id that is registered with a camera server. The server facilitates connection between the application and a required camera by keeping track of IP addresses corresponding to camera ids.

The application developed for iPhone and BlackBerry provides easy to use interface for the users to connect to their cameras and access various camera features.

## IMPORTANT FEATURES

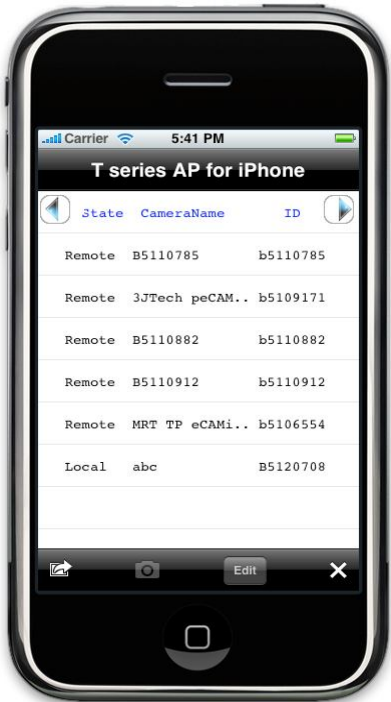
### Camera Management

The application can attach remote cameras to the phone using camera IDs specified by the user. The application connects with a dedicated server that translates camera IDs to network addresses. The application then connects with the specified network address of the camera. Communication is established over UDP using a proprietary protocol.

Application can automatically search cameras on the local network if the phone is connected to a local WiFi network.

### Camera Configuration

User may configure camera features if the user has administrative access to the camera. Authentication is carried out by the camera itself using user id and password supplied by the user. User may also set up the public password, supervisor password as well as camera name for a local camera.



APPLICATION NOTE

**Image Capture**

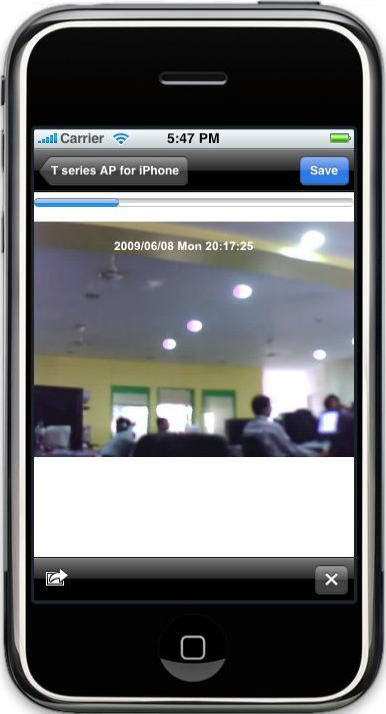
Once connected, the user has online access to the images captured by the camera and streamed to the phone. A camera may be configured to required authentication even for image viewing. Application supports actual size image viewing as well as full screen viewing.

User may save image snapshots as required by simply touching the Save Image button.

**Security Features**

Camera supports a function to activate trigger out devices. If an external trigger device is connected to the camera, user can activate the device remotely. User can control one set of AC powered device such as lights using a camera.

The camera also provides I/O connector leads for external sensors and alarms and the application provides UI to access these features.



**TECHNOLOGIES**

- iPhone - Xcode IDE, Objective-C, iPhone SDK
- BlackBerry - RIM OS versions 4.6/4.7, JDE 4.6/4.7, BlackBerry API
- Proprietary protocols on UDP to communicate with the cameras and camera servers