



Control Room Module

User Guide

For Release Candidate 1

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Definitions

Tenasta Security Server	The Tenasta hosted authentication server. Each customer module is registered on the Tenasta security server upon first launch and then each subsequent launch.
Video Conveyance Server	The customer web server that receives and sends video to the Remote and Control Room modules respectively.
Control Room (Rx)	This module is designed to receive, display and record up to eight simultaneous incoming video streams.
Remote (Tx)	This module is designed to capture and send video to the customer web server.

Introduction

This document will assist in the installation and use of the MobileLive Control Room module.

1. Prerequisites

1.1 Overview

The MobileLive Control Room module operates on PC platforms using the Microsoft, Windows XP operating system, the .NET 2.0 environment and the Microsoft Internet Explorer browser 6.0 or higher.

Upon startup, the Control Room module will connect automatically to the internet and the MobileLive server.

The MobileLive Control Room module requires administrative privileges to install. Please ensure the logged on user is a member of the required group.

1.2 Software

The MobileLive Video Control Room module requires the following operating environment:

- Microsoft Windows XP. Microsoft Vista can be used but performance will suffer.
- Microsoft .NET Framework 2.0

2. MobileLive Control Room Module - Client Deployment

There are no prerequisites for the installation of the Control Room module.

To register the module you will require your MobileLive Account number. Please ensure you have this to hand. If you do not have your Account number then please consult your Tenasta agent.

2.1 Installation of the Control Room module

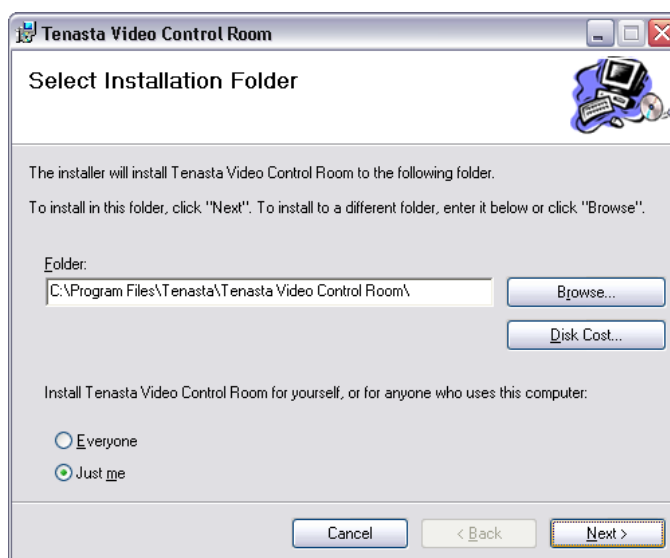
2.1.1 Tenasta WebPlayer Video Playing Software

Tenasta’s WebPlayer video compression software handles the decoding and display of all the audio/video data. The user must install this small application before progressing with the installation of the MobileLive Control Room module as set out below:

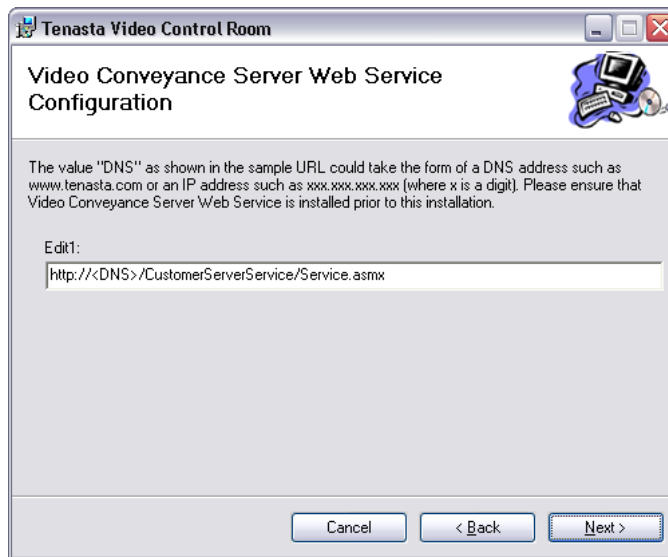
- Log on to a computer that is to be used to host the Control Room module.
- Please locate and run the [TenastaWebControlsSetup.exe](#) file
- Follow the on-screen instructions

2.1.2 Control Room module Application Installation

- From the same folder, run the Control Room module installation .msi file
..\Installation Files\Control Room ControlRoomInstallation.msi



- Step 3: Accept the default installation location or designate a new location. Click Next.



- Step 4: Replace the text “<DNS>” with the publicly identifiable web service address for the MobileLive Video Conveyance Server Web Service. To verify that this address is working, please enter the web service address in a browser address bar to display the following list of operations.

Service

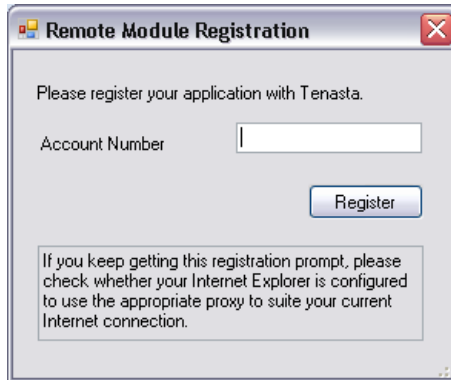
The following operations are supported. For a formal definition, please review the [Service Description](#).

- [CloseRemoteConnection](#)
 - [CloseRemoteConnection2](#)
 - [GetRemoteConnections](#)
 - [GetRemoteConnections2](#)
 - [GetVideoServerIP](#)
 - [InvokeRemoteConnection](#)
 - [InvokeRemoteConnection2](#)
- Step 5: Click ‘Next’ and confirm the installation.
 - Step 6: From Start menu -> Programs -> Splash MobileLive -> select Control Room module. Please make sure that you are connected to the Internet before executing this step.

2.1.3 Control Room module Registration

The MobileLive Control Room module requires that it be registered to enable it to be used.

- Step 1: Run the Control Room module from the Programs menu. The Control Room module Registration dialog box will be displayed the first time the application is used.



- Step 2: Enter the Account Number provided by Tenasta and click Register.

Manual Modification

- Step 1: If necessary, the value provided in Step 4 above, can be manually changed in the Remote module's configuration file.

The file: [ControlRoom.exe.config](#) can be found at `C:\Program Files\Tenasta\Tenasta Video Control Room\` or the corresponding location that you selected in folder that you specified in Step 3 of the installation.

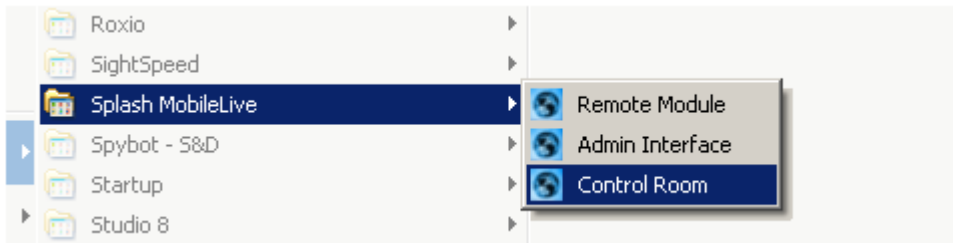
- Open the file using Notepad and scroll to the bottom of the file. In the `<appSettings>` section, make sure the `CustomerServerServiceUrl` points to MobileLive Video Conveyance Server Web Service.

```
<add key="CustomerServerServiceUrl"
value="http://<customerserver>/CustomerServerServiceService/Service.asmx"/>
```

3. The Control Room Application

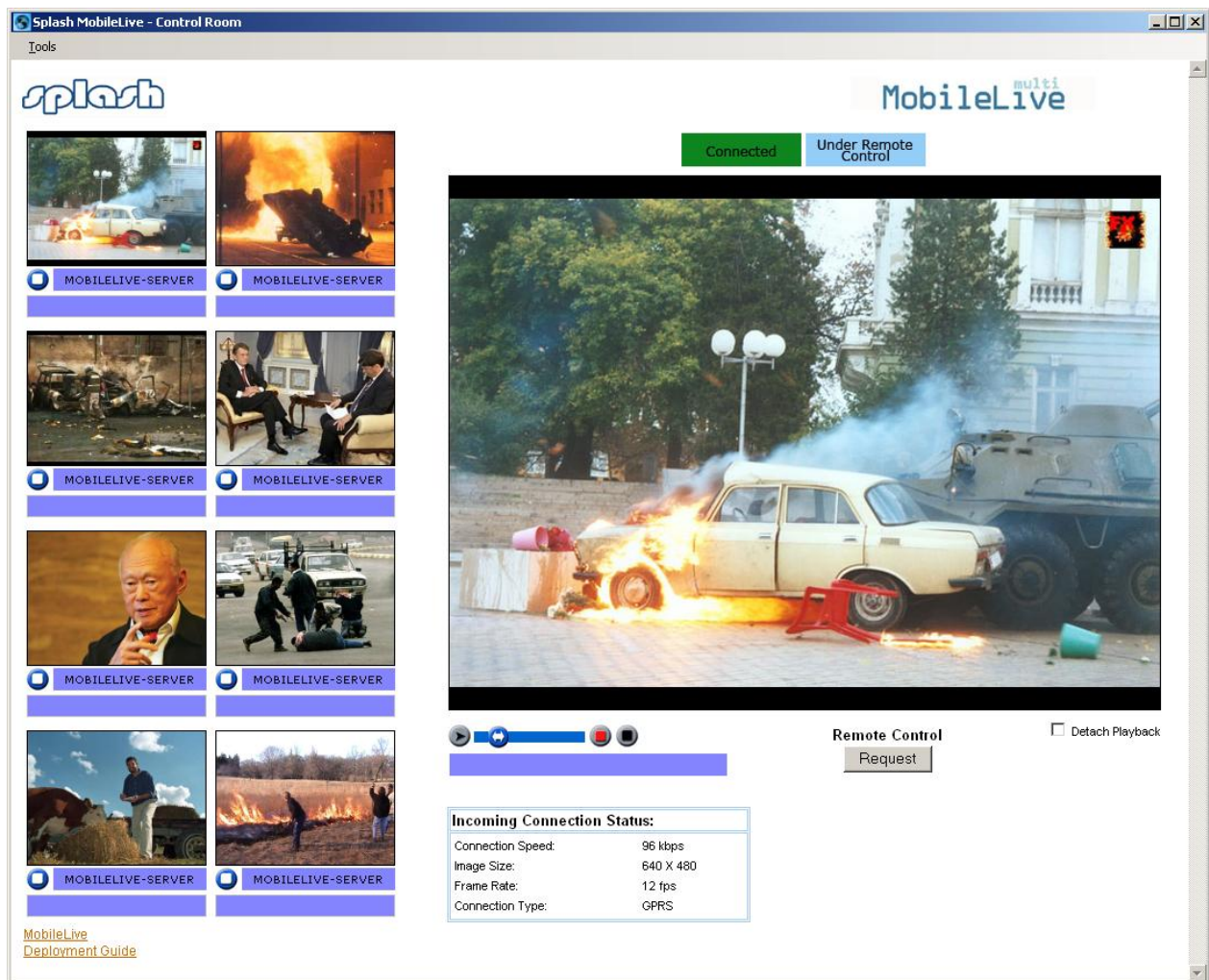
3.1 Starting the Control Room Application

Select Splash MobileLive > Control Room from the Programs Menu to open the Control Room interface as shown below.



3.2 Operating the Control Room Application

The Control Room interface is used to display up to 8 incoming videos simultaneously as thumbnail sized images. The control room operator can designate the video of interest and display it at an expanded size. The operator can take control of the remote module and change the capture size, the frame rate and the data rate. High quality still images can be ‘snapped’ and videos can be saved to disk while viewing.



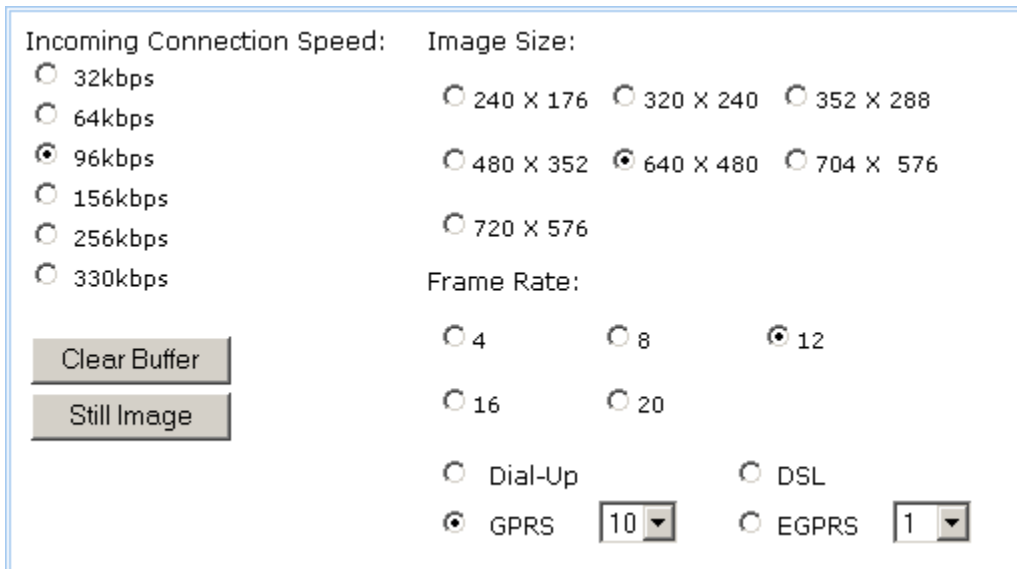
3.2.1 Select Video of Interest

Incoming videos will appear as thumbnail sized images on the left hand side of the Control room interface. Any one of the eight thumbnail videos can be displayed in the main window at 640 x 480 pixel size by clicking on the image.

When clicked, the main window connects to the same video stream and a duplicate video is displayed at an expanded size.

3.2.2 Obtain Remote Control

The control room operator can obtain remote control over the remote module by clicking on the 'Remote Control Request' button. The button turns red when permission has been granted.



The remote control interface can be used to change the capture size, the connection speed, frame rate and the modem type. The **Under Remote Control** button is bright red when the Control Room module has control over the Remote unit.

3.2.2.1 Image Size

When a small image is displayed in the main window, the image is stretched to 640x480 pixels and as a consequence, the image quality may deteriorate. The control room operator can remotely select a larger sized image and the closer the capture size to the display size, the sharper the image.

3.2.2.2 Incoming Connection Speed

The data rate can be increased manually IF the modem capacity and the connection speed allows. As bandwidth (data rate) increases, image sharpness and frame rate will improve.

3.2.2.3 Frame Rate

The chosen frame rate is treated both a target or aspirational value within the constraints of the selected capture size and the available bandwidth and will have an effect on image clarity. Image clarity will diminish in an effort to achieve the target frame rate for the given bandwidth.

3.2.2.4 Modem Type

Tenasta's video technology is adaptive and will dynamically adjust to the available bandwidth. The communications module within MobileLive will optimize the performance for dial-up, broadband (DSL) and the two types of GPRS modems however to obtain the best performance, the user should select the type of modem being used for the session.

GPRS modems have a rating of 1 to 12 depending on their potential data rate capacity. The interface enables the user to match the performance to the GPRS or E-GPRS rating.

3.2.3 Clear Buffer

Even though the Tenasta codec incorporates an algorithm that dynamically adjusts the data flow to match the available bandwidth, it is possible that excessive data can collect in the buffer if there has been an interruption in the data flow. This may result in an unacceptable delay between the real-time event and the display of the video. The control room operator can click on the 'Clear Buffer' button to manually flush accumulated data.

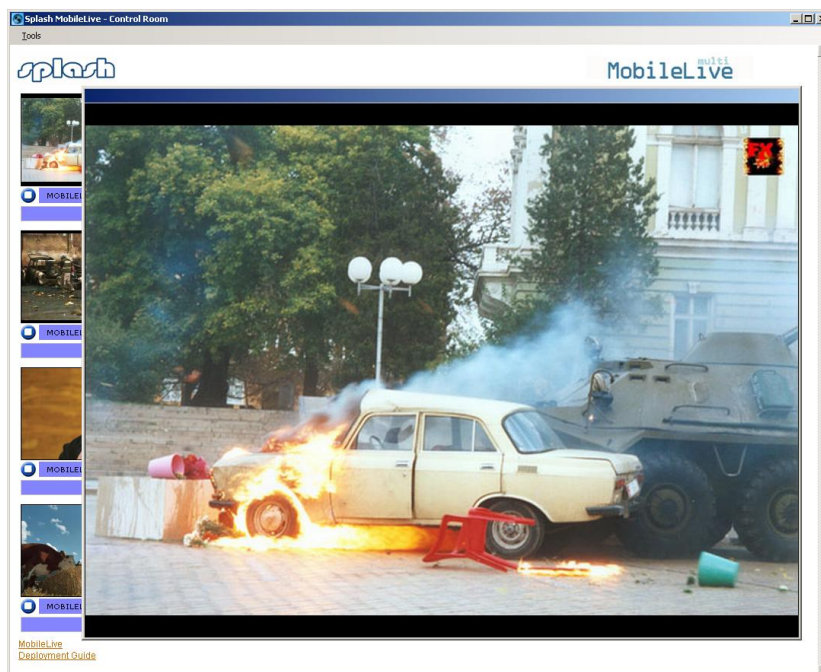
3.2.4 Obtain a High Quality Snapshot

When under remote control, the control room operator can command the remote module to capture and send a high quality still image.

3.2.4.1 Naming Convention and Automatic Saving to Disk



A snapshot image is automatically saved to the hard disk using the following naming convention: *yymmdd-hhmmss.ten*

3.2.5 Image Detach



The control room operator can 'detach' the large display of the incoming image and reposition it as required. It will stay on top to enable the operator to open other applications and still maintain sight of the incoming streamed image. The image can be displayed at its 'normal' size (actual capture size) or magnified x 2

3.2.6 Record

The control room operator can record the main incoming video while it is being viewed by clicking on the Record  button. When the Stop  button is clicked, a 'Save As' dialogue box opens to enable the operator to save the video file.

3.2.7 Automatic Connect / Re-Connect

When saving a video to the hard disk, the connection will terminate. It will however, automatically re-connect on a 20 second cycle.

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