Protocol for Truen Video Server and IP Camera

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Truen Co., Ltd.

1. Overview

This document describes how to access Truen video server or IP camera for the following purposes.

(1) Get media stream from the server
(2) Get events from the server and set the servers ports such as relay
(3) Configure the server's setting
(4) Control PTZ

(1) is covered in Section 2, and (2)~(4) are covered in Section 3.

This document is for the client application developers who don't want to use the client SDK by Truen.

2. Media Streaming

2.1 Protocol

Audio and video streaming from server to client conform to RFC standards.

Streaming and direction	Protocol	Remarks
Server -> Client - Audio and video	- RTP(RFC1889)/RTSP(RFC2326) - RTP over RTSP(TCP)	Video: H.264 Audio: G.711 u-law, AAC-LC
Client -> Server - Audio	- Non standard* (Refer section 2.8 SendAudio of "Truen HTTP API" document)	Audio: G.711 u-law, AAC-LC

RTSP URL

Syntax:

rtsp://<IP address>/video**N**s**M**+audio**L**
N: video channel number
s: secondary stream
M: secondary stream number
L: audio channel number

Example:

Single channel video server or IP camera

Stream	URL(Address)
Primary stream	rtsp://<IP address>/video1
Primary stream with audio	rtsp://<IP address>/video1+audio1
Secondary stream #1	rtsp://<IP address>/video1s1
Secondary stream #2	rtsp://<IP address>/video1s2

Secondary stream #3	rtsp://<IP address>/video1s3
Secondary stream #**N** with audio	rtsp://<IP address>/video1s**N**+audio1

* For backward compatibility, video1s is allowed for secondary stream #1

Multi-channel video server or IP camera
(4 channel server example: TCS-400(dual stream) and TCS-410(quad stream))

Stream	**URL(Address)**
Channel #1 primary stream without audio	rtsp://<IP address>/video1
Channel #1 primary stream with audio #1	rtsp://<IP address>/video1+audio1
Channel #1 secondary stream #1 secondary stream #2 secondary stream #3	rtsp://<IP address>/video1s1 rtsp://<IP address>/video1s2 rtsp://<IP address>/video1s3
Channel #2 primary stream without audio	rtsp://<IP address>/video2
Channel #2 primary stream with audio #1	rtsp://<IP address>/video2+audio1
Channel #2 secondary stream #1 secondary stream #2 secondary stream #3	rtsp://<IP address>/video2s1 rtsp://<IP address>/video2s2 rtsp://<IP address>/video2s3
Channel #3 primary stream without audio	rtsp://<IP address>/video3
Channel #3 primary stream with audio #1	rtsp://<IP address>/video3+audio1
Channel #3 secondary stream #1 secondary stream #2 secondary stream #3	rtsp://<IP address>/video3s1 rtsp://<IP address>/video3s2 rtsp://<IP address>/video3s3
Channel #4 primary stream without audio	rtsp://<IP address>/video4
Channel #4 primary stream with audio #1	rtsp://<IP address>/video4+audio1
Channel #4 secondary stream #1 secondary stream #2 secondary stream #3	rtsp://<IP address>/video4s1 rtsp://<IP address>/video4s2 rtsp://<IP address>/video4s3
Channel #**N** secondary stream #**M**	rtsp://<IP address>/video**N**s**M**+audio1

* For backward compatibility, video**N**s1 is equivalent to video**N**s

Above URLs assume that the default port(554) is used. The following examples show full URLs with port specification:

rtsp://192.168.10.100:554
rtsp://192.168.10.100:7000/video1
rtsp://192.168.10.100:7000/video1s

2.2 Operational Characteristics

Server disconnects RTSP connection when a setting which affects video encoding is changed

- Resolution, I-frame interval etc.

3. Events, Control and Configuration

The protocol for getting events from server, control the server and configure the server follows the scheme called ‘HTTP API’ which is widely used in the industry.

Please refer to the following document for the details of HTTP API.

- HTTP API
  Truen HTTP API for Video Server and IP Camera

- Parameters for HTTP API
  Configuration Parameters