

RTSP-interleaved stream capture from dump file

Overview

For debugging purpose, WCS includes the utility to capture RTSP stream from file obtained by tcpdump or any other IP packets dump collection tool. Then, the stream is published via RTSP, emulating IP camera. In its turn, WCS can capture RTSP stream from this "camera". The feature is useful when RTSP-source itself is not accessible, but there are dump files of stream from that source. The utility works with RTSP interleaved session files only.

Attention

The feature must not be used in production, use it for testing only!

Capturing stream from traffic dump file

To launch the utility the following parameters must be set:

- a directory containing dump files on server
- a port to listen RTSP incoming connections
- a source port for the stream dumped
- a condition to handle dropped packets

Launch example:

```
java -Dcom.flashphoner.fms.AppHome=/usr/local/FlashphonerWebCallServer -cp
/usr/local/FlashphonerWebCallServer/lib/wcs-
core.jar:/usr/local/FlashphonerWebCallServer/lib/*
com.flashphoner.tools.rtsp.RtspPcapServer
/usr/local/FlashphonerWebCallServer/pcaps 3554 2554 true
```

Where

- `/usr/local/FlashphonerWebCallServer/pcaps` - directory on server
- `3554` - port on which IP camera will be emulated
- `2554` - source port for dump file (real IP camera port)
- `true` - ignore packets dropped while collecting dump file.

If WCS is launched on this server, the port number on which IP camera will be emulated should be out of ranges used by WCS.

If source port is set to `0`

```
java -Dcom.flashphoner.fms.AppHome=/usr/local/FlashphonerWebCallServer -cp
/usr/local/FlashphonerWebCallServer/lib/wcs-
core.jar:/usr/local/FlashphonerWebCallServer/lib/*
com.flashphoner.tools.rtsp.RtspPcapServer
/usr/local/FlashphonerWebCallServer/pcaps 3554 0 true
```

the utility will try to detect all RTSP streams in all the dumps found, and list them to the standard output (see below).

The utility prints all information to stdout. For example, if there is one file `log.pcap` in `/usr/local/FlashphonerWebCallServer/pcaps` directory, the following will be printed to console:

```
04:35:20,721 INFO          RtspPcapServer - Starting
04:35:22,244 INFO          RtspPcapServer - Available sources:
04:35:22,245 INFO          RtspPcapServer -
Source{path=/usr/local/FlashphonerWebCallServer/pcaps/log.pcap,
pcap=io.pkts.Pcap@5a39699c, stream=RTSPStream{config=8, data=22052,
streamName='live1.sdp'}}
04:35:22,245 INFO          RtspPcapServer - Starting PCAP RTSP server
04:35:22,407 INFO          RtspPcapServer - Listening PCAP RTSP on address
/0.0.0.0 port 3554
```

The RTSP stream name exposed by utility will be set to RTSP stream name from the dump, or RTSP URI from the dump encoded as base64.

In this case, stream can be captured from address

```
rtsp://hostname:3554/live1.sdp
```

where `hostname` is server name with utility running.

If the directory contains a number of dump files, the stream names should not be the same, only one of such streams will be captured.

RTSP connection redirection testing

To test RTSP connection redirection using IP camera emulator, it is necessary to set the method, in response on which `302 Moved Temporarily` should be returned, using the following parameter in `flashphoner.properties` file

```
rtsp_pcap_server_redirect_method=OPTIONS
```

and IP camera address to which RTSP connection should be redirected, for example

```
rtsp_pcap_server_handler_redirect_url=rtsp://yourcamera:1935/live/sys3.stream
```

Then, run RTSP dump file capture utility and connect to stream from dump file as described above. RTSP connection will be redirected to the address defined.

Setting a custom name for captured streams

Since build [5.2.1794](#) it is possible to set a custom name prefix for RTSP streams captured from a dump file

```
rtsp_pcap_server_custom_stream_name=source
```

An index number starting from 0 will be added to the prefix. In this case all the RTSP streams captured from the dump file using the command

```
java -Dcom.flashphoner.fms.AppHome=/usr/local/FlashphonerWebCallServer -cp
/usr/local/FlashphonerWebCallServer/lib/wcs-
core.jar:/usr/local/FlashphonerWebCallServer/lib/*
com.flashphoner.tools.rtsp.RtspPcapServer
/usr/local/FlashphonerWebCallServer/pcaps 3554 0 true
```

will be available by the following URLs

```
rtsp://hostname:3554/source0
rtsp://hostname:3554/source1
...
```

where `hostname` is a server name where the utility is running.

RTSP authentication testing

Since build [5.2.1002](#) it is possible to test RTSP digest authentication. To do this, the additional parameter must be set when launching the utility:

```
java -Dcom.flashphoner.fms.AppHome=/usr/local/FlashphonerWebCallServer -cp
/usr/local/FlashphonerWebCallServer/lib/wcs-
core.jar:/usr/local/FlashphonerWebCallServer/lib/*
com.flashphoner.tools.rtsp.RtspPcapServer
/usr/local/FlashphonerWebCallServer/pcaps 3554 0 true 'login:password:SHA-
256,MD5'
```

Where

- `login` - user name to login

- `password` - password
- `SHA-256, MD5` - authentication algorithms list

In this case, all the streams exposed by the utility must be played by URI like

```
rtsp://login:password@hostname:3554/streamName
```