SportsPip Pipeline

**PIP Static Information**

* A unique ID for the PIP
* Some kind of token that can be used for identification
* PIP start and end date and time
* Registered user name and ID of the author
* The location of the event
* The GPS location
* Category designation
* Type of PIP (scheduled or unscheduled)
* Device ID
* Software version
* The IP or MAC address

**Constraints**

* Limit file size of the PIP
* Limit duration of the longest video file
* Limit frame rate or resolution

**Schedule**

* Control who is allowed to schedule a PIP
* Limit time of day the PIP can be created
* Limit the time of day the PIP can be uploaded or downloaded
* Limit the activity during critical events for capacity control

**Access**

* Control who can create a PIP on the server
* Control who can start an IP camera recording
* Control who can create public or private PIP
* Control who can download a PIP to Win10 editor
* Control who can download a PIP to iPad editor
* Control who can stream a video file
* Control who can add tagging data to the PIP

**Notifications**

* Notify an individual when a PIP is added
* Notify a group when a PIP is added
* Notify an individual or group based on other events
* Send notification to end user device when transfer is complete
* Can we display an accurate progress indicator on the mobile device or server console?

**Usage**

* Add category usage information to logs to allow some type of department chargeback reporting

**Priority**

* Does one user have higher priority than another? Are there any rules on how this should work?

**Performance Monitoring**

* Track how long it takes for a PIP to upload from every endpoint and calculate transfer rate
* Use to isolate problem devices or locations for performance tuning

**Reliability**

* Did the complete file get transferred? Use a checksum to compare created and delivered
* Restart transfer if it fails in the middle. Did it restart successfully?
* If unable to complete once due to unavailability, will it try again the next time the device is in the network range?
* Report what % of transfers fail? Identify what causes them to fail. Who is creating them when they fail? Compare the size and other attributes of those that fail with those that complete.
* Record what network devices are used in the transfer? Might be useful when multiple access points are available.
* Capture information on the device that is used to contribute.

**Security**

* Was the file encrypted when transferred (WPA2)?

**Questions**

* Is it possible to send individual files when transferring a zip file? Or is it just a block/sector type of transfer?

**Tags and Keywords**

* Added to provide additional search options, tags could be predefined or user defined

**What Do I Need to Work with Scheduled PIPS?**

**Schedule Details**

* The location of the event – home or away
* Is this a multiple user event
* Who can add content to the PIP?
* Who can request content from the PIP?
* Are there any priorities – is IP Camera streaming more important than iPad or iPhone clips?

**Timecodes**

* Need to work with several clocks concurrently and be able to establish a relationship between them
* UTC clock time, running game clock time, clock time remaining in match

**What do I Want to Know about the Coach?**

**Identification**

* Name and contact information

**Permissions**

* Add a player
* Add a coach
* Create an recording scheduled event (active = starts an IP camera recording)
* Create an informational schedule

**Links**

* To coaches category of PIPs

**AGENTS**

Compression:

When required, compression container will use compression to resize and reduce high quality video for sharing or archiving

* Resolution and frame rate requirements are specified. From 4K to 2K to 1080P to 720P to 480P
* Also would control BIT rate and compression quality settings if available
* Naming conventions for the various implementations