Guide to Configuring the ad-flow Docker Container

Before configuring the container, please consider the following:

1. **Instance Type Selection**: Refer to the separate guide on selecting the appropriate EC2 instance type to ensure optimal performance for your workload.
2. **Elastic IP**: Attach an Elastic IP to your EC2 instance. This ensures the instance retains the same IP address even after a reboot, which is crucial for functional input and output stream connections.

Docker containers can be customized using environment variables. These variables are set when starting the container and control its behavior. Below is a list of the environment variables you can use to configure the ad-flow container:

Core Configuration

- **`INPUT_IP`**: The IP address where the container receives video input. This should match the source of the incoming video stream (e.g., `10.0.1.15`).
- **`INPUT_PORT`**: The port number for video input (e.g., `5004`).
- **`OUTPUT_IP`**: The destination IP address for the processed video stream. This is the IP of the machine receiving the output.
- **`OUTPUT_PORT`**: The port number for the output stream.
- **`DELAY_SECONDS`**: Specifies how long the container buffers the video stream to detect ad breaks and calculate their durations. Since the SCTE-35 marker at the start of the ad break must include the ad break's full duration, this value must be greater than or equal to the longest ad break in the stream. If this value is too short, the SCTE-35 marker will indicate a shorter duration than the full ad break.
- **`STREAM_PROTOCOL`**: The protocol for streaming (`rtp` or `srt`).

Metrics and SCTE-35 Configuration

- **`METRICS_PUSH_GATEWAY`**: URL for the Prometheus Pushgateway to send metrics (e.g., `http://localhost:9091/metrics`).
- **`SCTE35_FILLER_REPEAT_SECONDS`**: Interval for repeating SCTE-35 markers during ad breaks (default: `5.0`).
- **`SCTE35_TIME_AHEAD_SECONDS`**: This is the delay between when the SCTE-35 marker indicates the start time of the ad break and the actual start of the ad break. For example, if this is set to `5.0`, the SCTE-35 marker will signal the ad break start time 5 seconds before the break begins.
- **`CHANNEL_NAME`**: Used as the instance name for Prometheus metrics.

SRT-Specific Configuration

- **INPUT_SRT_STREAMID**: Stream ID for the SRT input.
- **INPUT_SRT_PASSPHRASE**: Passphrase for SRT encryption on input.
- **OUTPUT_SRT_STREAMID**: Stream ID for the SRT output.
- **OUTPUT_SRT_PASSPHRASE**: Passphrase for SRT encryption on output.

Shutdown Schedule

- **SHUTDOWN_SCHEDULE**: Schedule for automatic shutdowns in the format `HH:mm [days_of_week]` (e.g., `"02:30 1,2,3,4,5"` for 2:30 AM on weekdays). Time is in UTC.

Notes

1. Ensure the IP and ports align with your streaming setup. Input and output streams will typically reside on different machines, often in separate subnets.
2. Adjust `DELAY_SECONDS` and SCTE-35 settings for optimal ad detection. For example, use a value for `DELAY_SECONDS` that covers the longest ad break expected in your stream.