USING AWS ELEMENTAL LINK TO STREAM TO SOCIAL MEDIA: FACEBOOK, TWITCH, AND YOUTUBE

Workflow Example

CONTENTS

INTRODUCTION

This workflow example shows how to use AWS Elemental Link to deliver a high-quality video stream to multiple social media sites.

AWS Elemental Link is a compact, easy-to-set-up device that delivers HD video from your SDI or HDMI source directly to the AWS Elemental MediaLive service for processing and further distribution. For details on AWS Elemental Link, see https://aws.amazon.com/medialive/features/link/.

REQUIREMENTS

To use this example workflow, you need:

- An AWS Elemental Link device
- An SDI or HDMI A/V source, up to 1080p60, with an appropriate cable
- A wired (Ethernet) connection to the Internet
- Access to the AWS account associated with the AWS Elemental Link device
- Credentials/stream keys for delivery to your social media platform(s) of choice:

    1. URL for RTMP delivery to the platform
    2. RTMP Application Instance (“Stream name” or “Stream key”)
    3. Credentials (if needed for authentication)

ORDER OF WORK

1. Connect the AWS Elemental Link device to AWS
2. Create an input in AWS Elemental MediaLive
3. Create a channel in AWS Elemental MediaLive
4. Start streaming the video

STEP A: CONNECT AWS ELEMENTAL LINK TO AWS

When you ordered your AWS Elemental Link, it was assigned to the AWS account and region you selected. If you log into the AWS Management Console using the same AWS account, and open the MediaLive console in the region you selected, you should see your device listed under the devices page. The devices are listed by Device ID, which you can find printed on the bottom of your device:

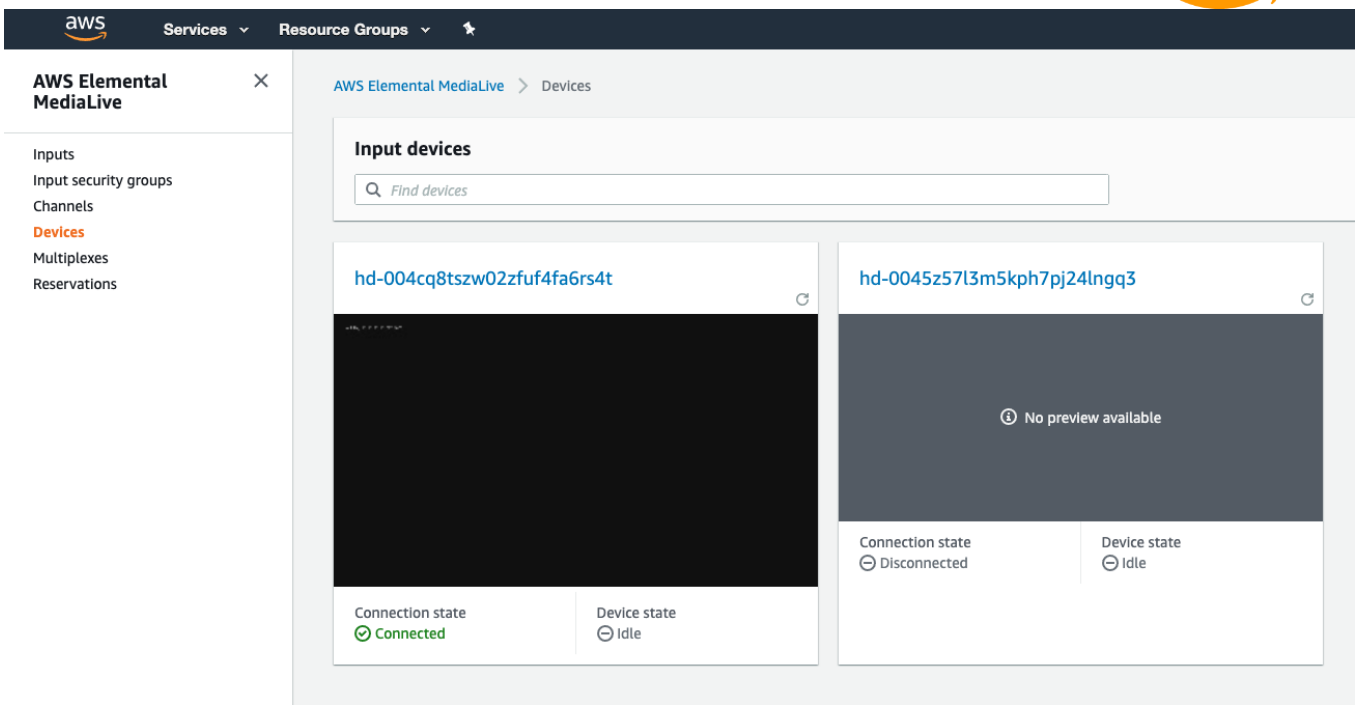

Figure 1: MediaLive Devices view. The device on the left is powered up and connected to AWS, the device on the right is not yet connected

The AWS Elemental Link device connects to the internet using a standard Ethernet cable. If your network supports DHCP, the device receives an IP address, and contacts AWS after it powers up.

1. Connect a network cable to the Ethernet port.
2. Connect your HDMI or SDI source using an appropriate cable.
3. Use the provided power adapter to deliver 12V DC power to the device. Note the barrel connector has a twist-lock mechanism to prevent it from falling out.
4. As the device powers up and initializes, the front panel lights illuminate. Once fully initialized, they should show the following:

Power: Blue

Online: Blue

AWS Link: Blue

Streaming: If the SDI/HDMI source is active, purple. Otherwise, the indicator will not be illuminated.

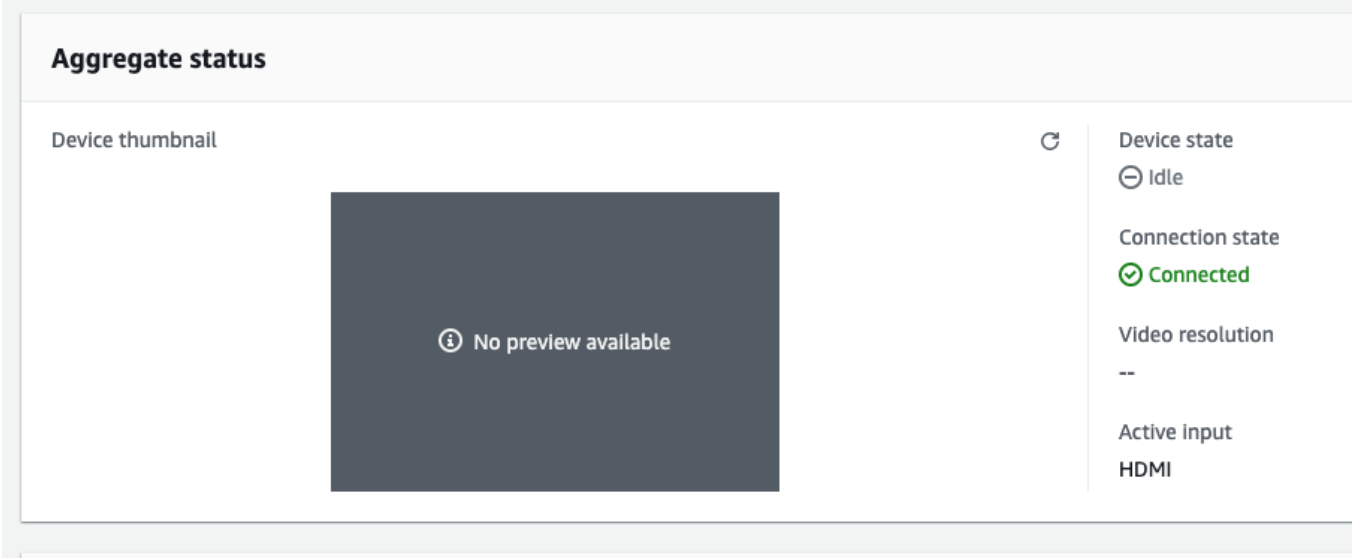

Figure 2: MediaLive Device status detail – connected, but no source video yet

5. Start your source. The **Streaming** light turns purple and you see a thumbnail in the status window confirming what the device is receiving.

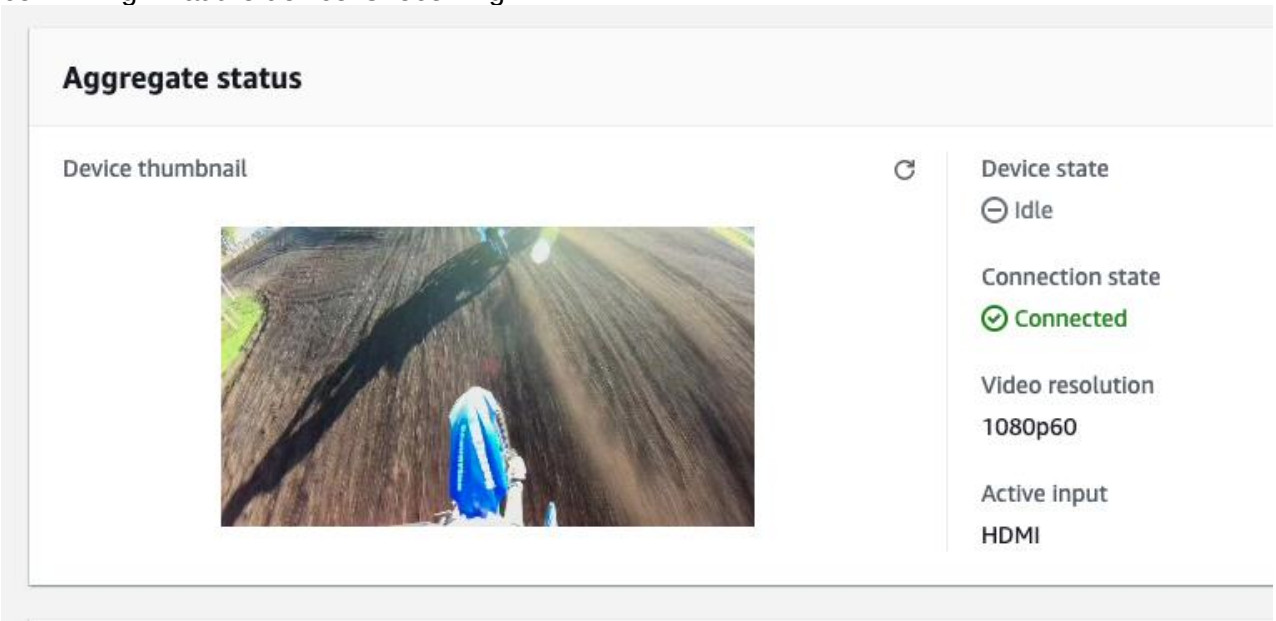

Figure 3: MediaLive Device status detail – source now active

STEP B: CREATE AN INPUT IN AWS ELEMENTAL MEDIALIVE

Once the device is working as expected, you can create a MediaLive input using the device:

1. Open the Input listing page:
   - If the standard service page appears, choose **Inputs** from the navigation panel on the left side.
   - If the service landing page appears, expand the left-hand menu by choosing the three horizontal lines near the top just below the AWS icon. Choose **Inputs**.

   The Input listing page appears.
2. Choose **Create input**. The Create input page appears.

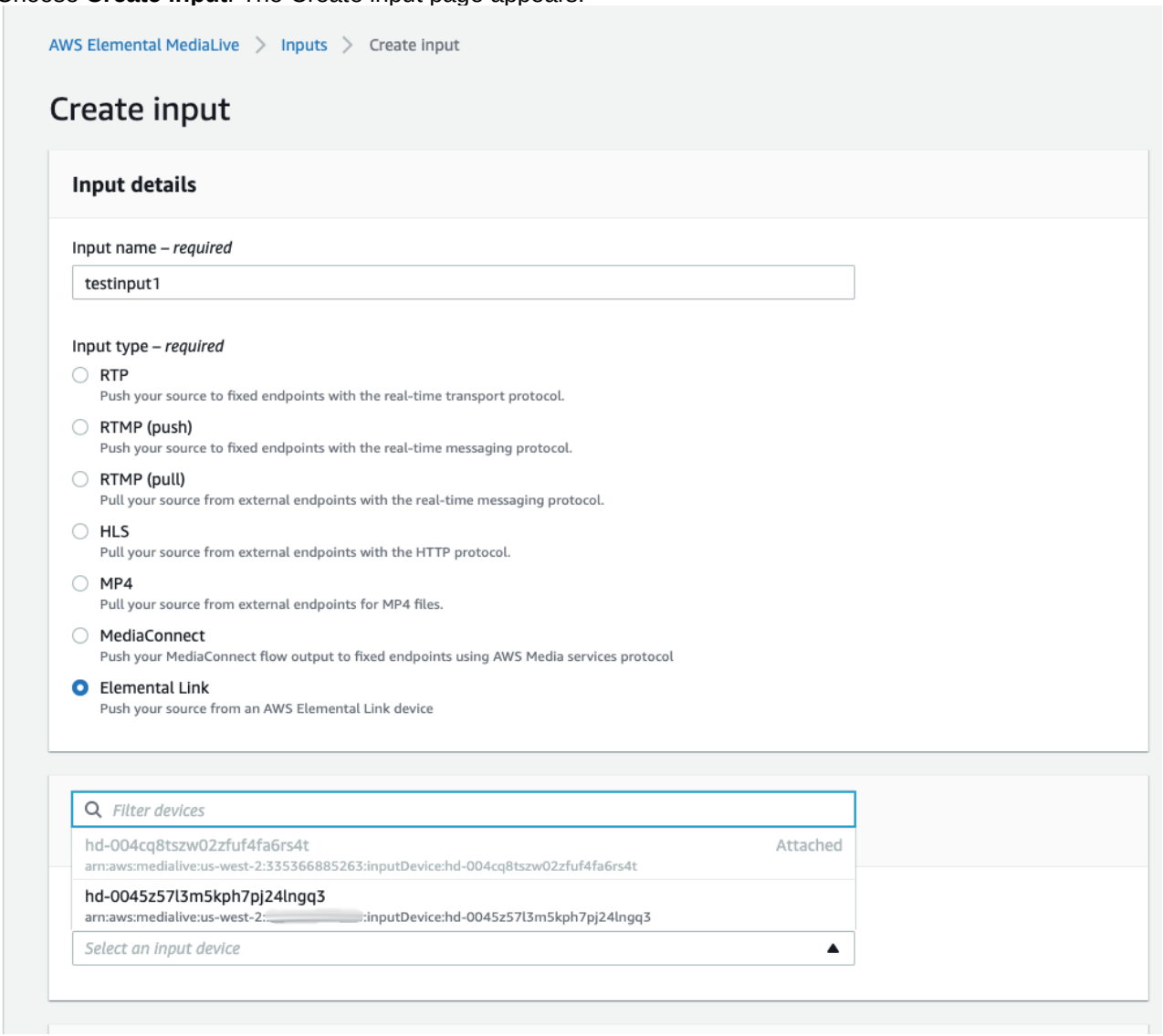

Figure 4: Create Input details page

3. Complete the fields:
   - **Input name**: Enter a meaningful name.
   - **Input type**: Choose **Elemental Link**.
   - **Input Devices:** Select your device from the drop-down.

4. Choose **Create.** The new input appears in the list of inputs.

STEP C: CREATE A CHANNEL IN AWS ELEMENTAL MEDIALIVE

With the input created, you can create the MediaLive channel in order to send your video to your social media platforms:

1. From the left-hand column, choose **Channels**, then choose **Create channel**. The Create channel page appears.
2. For **Channel name**, type a meaningful identifier for the channel.
3. Scroll down approximately halfway to the **Channel template** section, and choose **RTMP Push.** The Channel navigation panel shows:
   - Three output groups: YouTube, Facebook, and Twitch
   - One output for each output group
4. In the IAM role section, take the appropriate action:
   - If the **Create role from template** option is *enabled*, select that option and choose **Create IAM role**. This creates the role. Once you complete the creation process, the role is automatically selected from the **Use existing role** drop-down.
   - If the **Create role from template** option is *grayed out*, select **Use existing role** and then select **MediaLiveAccessRole** from the drop-down.

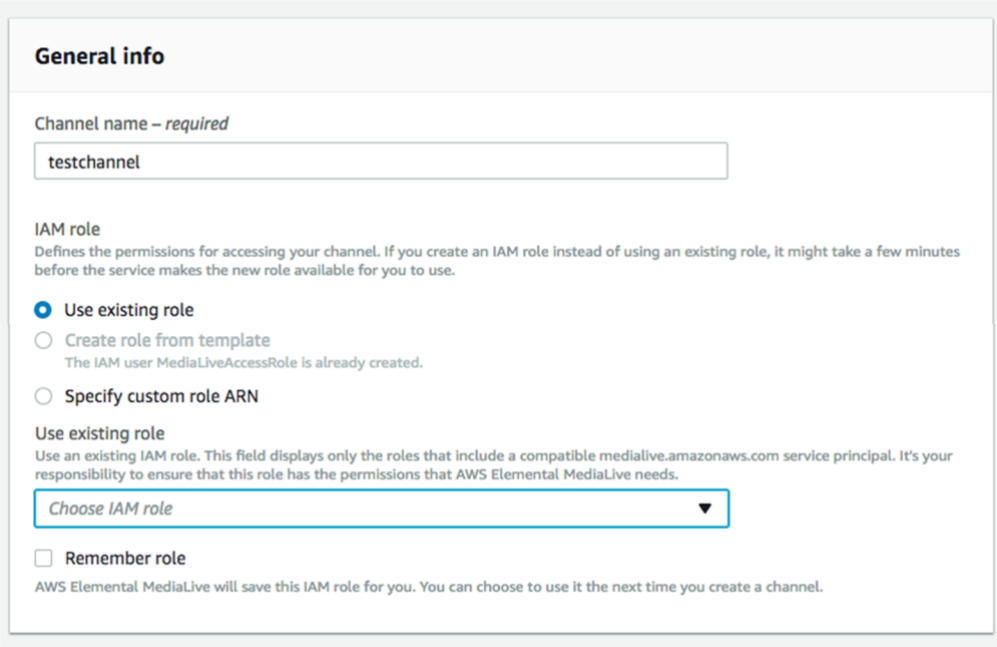

Figure 5: Choosing an IAM Role

5. Under **Channel class,** choose **SINGLE_PIPELINE.**
6. In the left-hand column, next to **Input attachments**, choose the **Add** button. The Attach input card appears to the right. Choose the input you created earlier from the drop-down and then choose **Confirm**.
7. The **RTMP Push** template that you selected provides the output type expected by each of the three platforms. If you are using other platforms, you might be able to adapt one of these output groups to your needs (refer to the social media platform's suggested configuration). If you are not using all of these platforms, you need to delete the output group or groups that you are not using.
8. From the **Output groups** listing, choose one of the platforms you plan to use.

- Check that the URL matches what the platform provided to you for your livestream. Make any needed changes.
- Under Stream Name, add the Stream Name or Stream Key provided by the platform.
- Default values for resolution, frame rate, and output bitrate are provided for each platform output. These can be adjusted if required.

9. Repeat the process for the other platforms using the **Output groups** listings.
10. If you are not using a particular platform for this channel, choose that platform's output group and then click the **Remove** button on the top right.

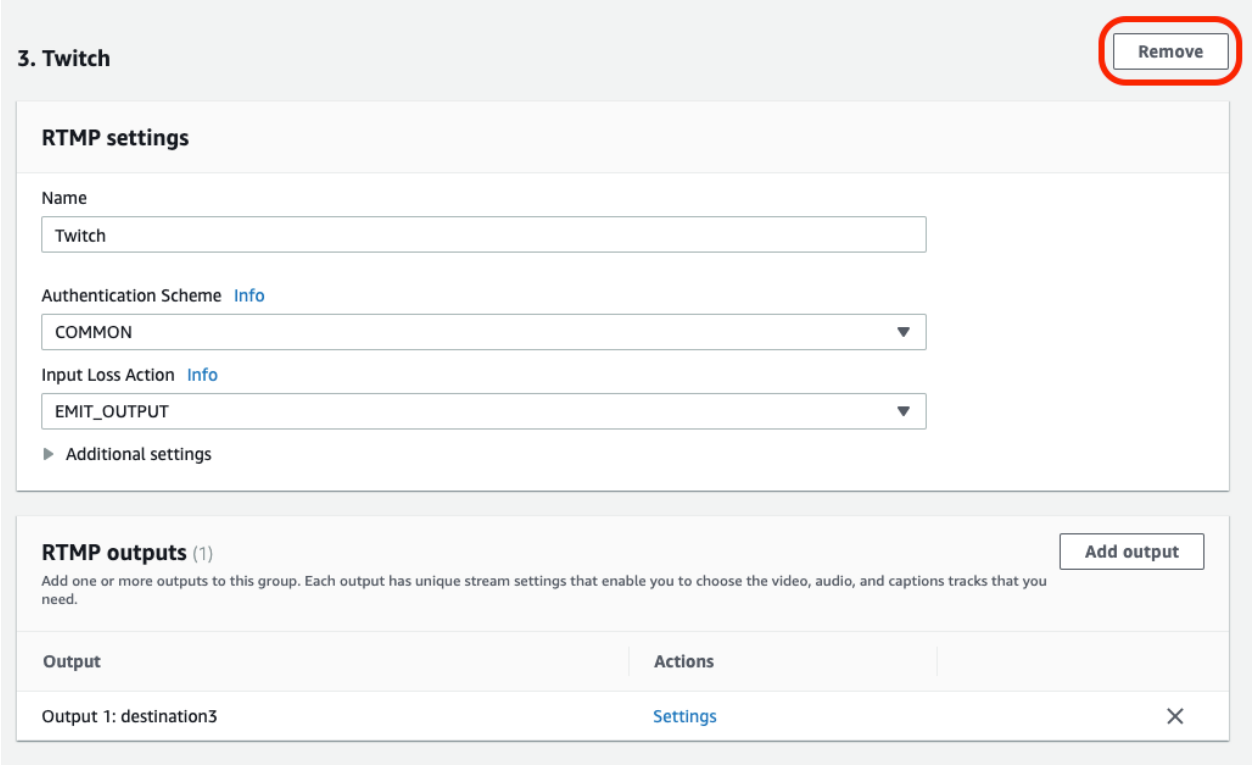

Figure 6: Removing an output group from a channel

11. If the platform you're using requires credentials, add them in the **Credentials** area. Click the carat to show the fields. Fill in the Username field and use the provided interface to securely store the password in the EC2 Systems Manager Parameter Store.

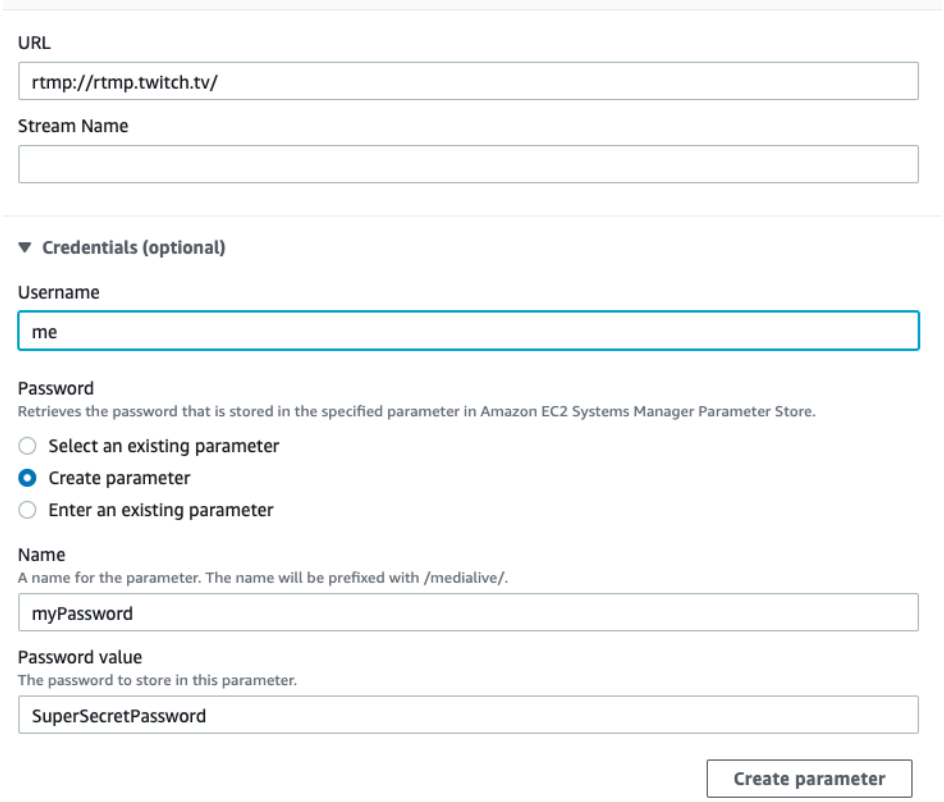

Figure 7: Using credentials with RTMP outputs

12. Choose **Create channel**. The page with the list of channels appears, showing the new channel. The status of the channel changes from Creating to Idle.

STEP D: START STREAMING THE VIDEO

Ensure your source is connected to the Link device and is actively sending audio and video. On the detail view of your MediaLive channel, choose **Start**.

As MediaLive starts, the status of the **Streaming** indicator light on the front of the AWS Elemental Link device changes to blue. On the MediaLive console, the Channel state changes; first to Starting, then to Running. Check your social media sites to confirm they are receiving video.

STEP F: CLEANING UP

To avoid additional charges, it's important to stop and delete all of the resources you used.

1. In the AWS Elemental MediaLive console, under the channel listing, choose the radio button beside your channel, and then choose the **Stop** button.
2. Once the channel state has changed to **idle**, confirm the radio button is still selected, then from **Channel Actions** drop-down, choose **Delete channel.**
3. From the **Inputs** section of the console, choose the radio button beside your input and then choose the **Delete** button from the top right.