

Welcome to the Spark™ builder — this tool lets you design and deploy fully customized cloud production environments. **Note: All configuration options can be edited after the environment has been submitted by clicking on the pencil icon on the right side of the resource.**

As you adjust components, **you'll see the associated hourly costs update in the lower right corner.** Provisioned costs are incurred while the environment is idle; active costs apply when the environment is switched on.

## 1. Hosting

Select your **Cloud Hosting** preference:

- **BitFire Hosted**
  - BitFire-managed cloud provisioning and hosting
  - Simply turn your environment on/off when needed
  - **Active Cost** and **Provisioned Cost** apply
- **Self Hosted**
  - Hosted in your own cloud infrastructure
  - Assistance from BitFire TechOps encouraged for first-time setup
  - Unlimited usage, **Active/Provisioned Cost** doesn't apply
  - **Note:** If you have not already received the AMI for self-hosted Spark™ Environments for your desired region, please reach out to client services for assistance.

## 2. Basic Configuration

- **Name** your environment.
- Choose a **Region** (e.g., AWS us-east-1) and **Availability Zone**.
- Select your **Switcher Size** (4, 8, 16, or 24 Inputs, with corresponding M/E and AUX buses).
- Select your **Replay Size** (e.g., 4x2, 8x2, or 8x4).
- **Note:** To provision environments with Switcher sizes larger than 8 inputs and Replay larger than 4x2, please contact sales@bitfire.tv.
- Choose your **Output Format** (e.g., 1080p59.94) and **Orientation** (Landscape or Portrait).

### 3. Storage

- Configure the number/sizes of **Clip Stores**, **Still Stores**, and size of the **Audio Player**.
- Match these settings to your estimated needs.
- Files can be uploaded via drag-and-drop into the system after launch.

### 4. Switcher

- Define what each switcher input will be from the following options:
  - Bookable Video Input
  - Clip Player
  - Still Player
  - Replay Output
  - FireBridge Contributor (WebRTC guest)
  - HTML5 Graphics Source
- Rename inputs as needed for clarity in production.

### 4. Replay

- Select which switcher inputs will be routed to the Replay system.
- Choose which audio tracks are embedded with each replay input.
- Rename UMDs (under-monitor displays) to reflect content or camera names.

## 5. MVW (Multiviewer) 1 & 2

- Customize your primary and optional secondary multiviewer layouts.
- For each tile:
  - Choose the video source.
  - Enable/disable VU meters.
  - Toggle display of format indicators and VU numbering.
  - Customize UMD text.

## 6. Users

- Define individual **Users** that will appear for FireBridge participants.
- Each user can select their name when joining the production via browser.

## 7. Comms

- Set up **Comms Channels** that appear directly in the Spark web interface.
- For AES67 audio routing:
  - BitFire can receive Dante-compatible comms via AES67.
  - Integration with 3rd-party intercom systems is supported — contact Sales for assistance.

## 8. Embedders

- Configure audio embedders for separate audio mixes
- Number of **Embedders** match the number of configured outputs for your environment
- Select sources from within the Audio Mixer:
  - Mixer Out
  - AUX
  - Bus
  - Direct Out

## 9. FireBridge

- Customize video and audio sources for each FireBridge view
- If utilizing FireBridge guest contribution, assign a dedicated return source here

## 8. Outputs

- Designate bookable **Output Paths**.
- Set video sources and associated audio mixes.
- Rename outputs to match your show's format (e.g., "Program TX," "Clean Feed," etc.).

## 10. Licenses

- Assign a BitFire Production License to an environment
- If no license is assigned, environment will be billed 'Pay As You Go'

## Finalizing Your Environment

Once your Spark™ environment is fully configured:

1. Click **Submit** to deploy it.
2. The new environment will now appear in your **Resources** list.
3. To activate the environment, toggle the switch located on the right side of the entry.

You'll see:

- **Blue spinning arrows** while the system spins up (approx. 5 minutes)
- **Green dot** once the environment is ready for use

Finally, click the icon that looks like a box with an arrow pointing upwards and to the right to access links to all of your Spark resources.