In-Flight Entertainment Systems

Implementation of wireless in-flight entertainment (W-IFE) systems presents unique challenges and new opportunities. ExpressPlay allows passengers to use either their personal devices or those provided by their airlines without compromising security.

Two Ways to Deliver Wireless IFE

Protect and deliver your in-flight entertainment systems to passengers worldwide using ExpressPlay. Below is you will find a diagram of a typical ExpressPlay wireless IFE system scenario. ExpressPlay enables airlines to offer in-flight entertainment systems directly to their passenger’s smartphone, tablet or laptop as well as the screens built into the aircraft. Both streaming and download scenarios are supported so your passengers could finish their movie rental even after they leave the plane.

If your aircraft is equipped with a reliable high-speed Internet connection, you have the option to use ExpressPlay’s cloud service in lieu of installing the ExpressPlay Server onboard your aircraft. Although this scenario is still a bit forward thinking due to the unpredictable nature of today’s inflight broadband services, it is offered as a convenience requiring no onboard equipment installation.

ExpressPlay’s InFlight solution works with a variety of devices, including iOS and Android smartphones and tablets, as well as Windows and Mac laptops, and player devices built into the aircraft.

In-flight Entertainment System

In the this case, you will need a server onboard the aircraft to run three services: a media server, a DRM license server and a device provisioning server. There are two options for license servers: MS3 server for streaming content licensing, or ExpressPlay Server for downloadable content licensing. Your content keys will be stored typically on the media server, but they may be stored on a separate onboard server if desired. The device provisioning server will need to store a reserve of device personalities (unique device credentials) for distribution to onboard mobile devices (via your mobile app) upon request. Your mobile app will need to retrieve an unused device personality at least once in order to enable ExpressPlay on each device.

1. ExpressPlay DRM Service
   Sign up and use the web admin to access the test SDK and test service for development purposes.

2. ExpressPlay Packaging Tools
   Use ExpressPlay Packaging Tools to encrypt your content.

3. Storefront
   When your app first runs, it will ‘personalize’ using the onboard ExpressPlay Server. This step is only needed one time per device. Subsequently when your app asks your onboard media storefront to allow playback, your storefront server retrieves a token from the onboard ExpressPlay Server using the REST API, then responds to the app with the token.

4. ExpressPlay SDK
   Your app and storefront should be modified to communicate with ExpressPlay. Once you’ve added the SDK to your app, you’re ready to play.
Broadband Option - Remote License Server

In this case the media server remains onboard to avoid bandwidth limitations of the aircraft Internet connection, but you do not install an ExpressPlay Server in the aircraft. Playback tokens are obtained by the player devices over the broadband connection at the time of playback request. **NOTE:** This method requires a reliable broadband link for the duration of flight.

1. **ExpressPlay DRM Service**
   Sign up and use the web admin to manage your account and track activity.

2. **ExpressPlay Packaging Tools**
   Use ExpressPlay Packaging Tools to encrypt your content.

3. **Storefront**
   When your apps ask your storefront to allow playback, your storefront server retrieves a token from ExpressPlay using the REST API, then responds to the app with the token.

4. **ExpressPlay SDK**
   Your app should be modified to communicate with ExpressPlay. Once you’ve added the SDK to your app, you’re ready to play.