RDK Video

RDK is a fully modular, portable, and customizable software solution for video devices and other profiles. RDK accelerates the deployment of next-gen video products and services, simplifying customization and user experience.

As an open source platform, we welcome and encourage RDK community members to contribute software changes and enhancements to the RDK stack.

RDK Video for IP provides a common method to manage video playback functions. The IP client device serves as an interface and receives video content from an in-home media gateway device or from an external media server.

IP Features

- Content delivery — VOD, SDV, iPPV, Video over Wi-Fi
- Digital Rights Management (DRM) — Adobe® Access integration, PlayReady® & Widevine
- Emergency alert system
- Cast screening
- Adaptive bit rate with MPEG-DASH
- Codecs support for HDR 10 bit (HEVC HLS) for gateway set-top
- Video output resolutions up to Ultra HD/4K & HDR
- Audio output formats, including Dolby® MS12
- Customizable video telemetry
- Closed captioning
- Copy protection
- Song track identification

RDK Video for Hybrid provides a common method to manage complex video functions such as tuning, conditional access, DRM, and stream management.

Hybrid Features

- QAM & DVB tune
- IPTV & VOD
- Media streaming to in-home devices
- Home networking
- Recording
- Customizable telemetry & feature control
- Progressive download
- Conditional access & DRM
- Premium apps
- Diagnostics support
- Closed captioning
- Support for all popular streaming protocols

RDK Video for TV is an open source Smart TV profile that allows manufacturers and operators to build RDK-based TV and video solutions.
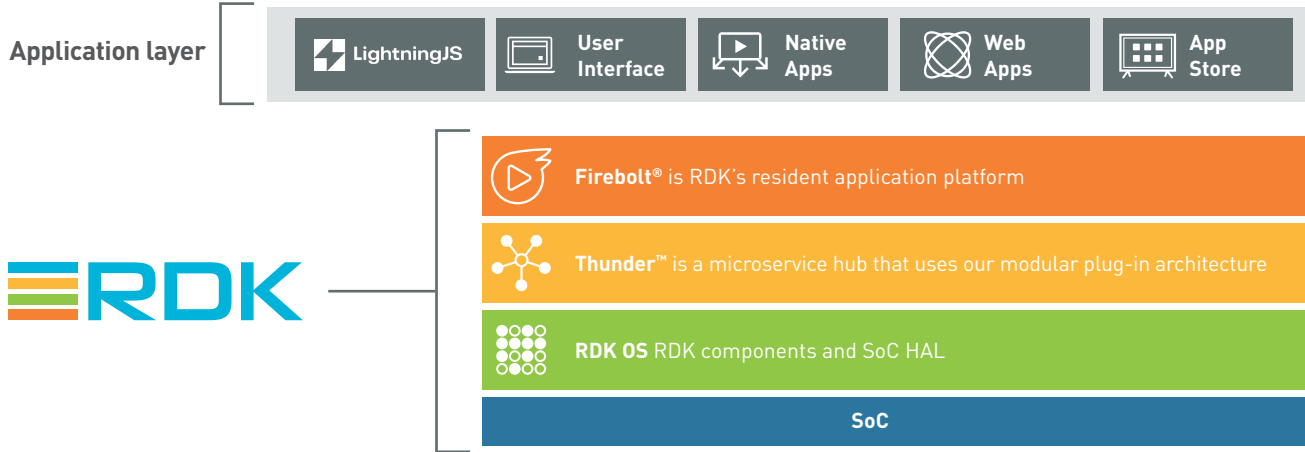
TV Features

Common to RDK Video:

- Clean, intuitive Lightning™ UI with integrated voice
- OTT streaming app pre-integration via Firebolt®
- Consistent look and feel with other RDK Video products

TV-specific:

- Amlogic AT301 SoC
- Color, picture, and audio adjustment
- Offline display for 3rd party devices via HDMI
- Display device power management and CEC

The latest version of the RDK Video software stack is designed to simplify app development and integration on any set-top device while allowing companies to maintain complete control of their apps, device data, and customer experience.

RDK Video is designed for use with Lightning™, a JavaScript-based app development language, but also supports HTML5 web apps and native streaming video apps, all integrated through Firebolt®.

Application layer

LightningJS	User Interface	Native Apps	Web Apps	App Store

RDK

Firebolt® is RDK's resident application platform

Thunder™ is a microservice hub that uses our modular plug-in architecture

RDK OS RDK components and SoC HAL

SoC

RDK Video includes:

User interface: RDK Video includes a full-featured Reference Lightning™ UI, or you can develop and customize your own UI.

Firebolt®: The RDK application platform accelerates the rigorous certification process required by today's leading global streaming app providers and ensures compatibility with their latest releases, eliminating the need for future updates.

Thunder™: Thunder™ offers an event-driven interface framework and has the flexibility to enable or disable any feature as a plug-in. Thunder™ microservices (aka RDKServices) are implemented as plug-ins and configured as part of WPE subsystems.

RDK Video supports:

Global streaming apps: RDK features pre-integrated top global streaming apps, providing operators with an easy path to offer today's most popular content to subscribers.

Pre-integrated app stores: Today's entertainment and information environment is driven by access to a wide range of apps. RDK provides multiple app store options with access to hundreds of apps, allowing operators to offer their customers a wide range of options while retaining control of their devices and customer data.

To learn more about RDK,
visit **www.RDKCentral.com**.

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