KreaTV®

KreaTV is a powerful software platform for set-tops that simplifies the development, deployment and support of advanced user experiences in public and managed networks

The KreaTV architecture is built on three pillars:

Generic
It uses the same code for various hardware platforms. Hardware specific parts are abstracted at a low level.

Modular
The software builds are easily tailored according to customer needs. Removing unused features results in a lean and optimized solution.

Extensible
KreaTV is easily extended with new functionality by ARRIS, partners and customers.

PRODUCT OVERVIEW

Easy to integrate
The key to KreaTV's success is its ability to be customized and integrated with other products. ARRIS offers several levels of integration between operator software, middleware and KreaTV - from turn-key solutions to full operator design. KreaTV is already integrated with leading middleware, video on demand (VoD), Conditional Access (CA)/Digital Rights Management (DRM) products and chipsets. This has resulted in a wide range of approved ready-to-go solutions from ARRIS Channel Partners.

Flexible
Keeping core functionality in KreaTV instead of in applications or middleware ensures that you can adapt to changes and publish updates with ease. This leads to less integration for new software or hardware you add to your network. KreaTV is continuously adapted to new System on a Chip (SoC) chipsets and supports multiple hardware models. A well-documented HTML5 execution environment facilitates User Interface (UI) and application development.

Optimized
KreaTV has been developed and matured over more than 15 years. A close link to complimentary set-top products designed in common with the KreaTV platform provides enhanced optimization of both memory and CPU usage. This assures that the KreaTV platform gives the best performance possible from the hardware.

Quick to deploy

The KreaTV platform and its tools help reduce development time and complexity when building customized solutions with applications and software components from other vendors. KreaTV supports desktop development while connected to the platform running on the set-top using the remote TV Open Interface (TOI) feature. This allows seamless movement between desktop and the target hardware.

For operators that want to start quickly and avoid lengthy backend and UI integration, the ARRIS KreaTV Go system offers an easy to use UI that can enable launch of an IPTV or OTT service within weeks.

Extensive Support

As a market-leading set-top vendor, ARRIS offers world-class support and maintenance with local technical support and account management. ARRIS also offers training, professional services and 24/7 global support.

Low total cost of ownership

In summary; the combination of the well designed modular architecture of KreaTV, its state of the art documentation, flexible execution environment and reliable platform that is easy to integrate delivers a low total cost of ownership for KreaTV customers.

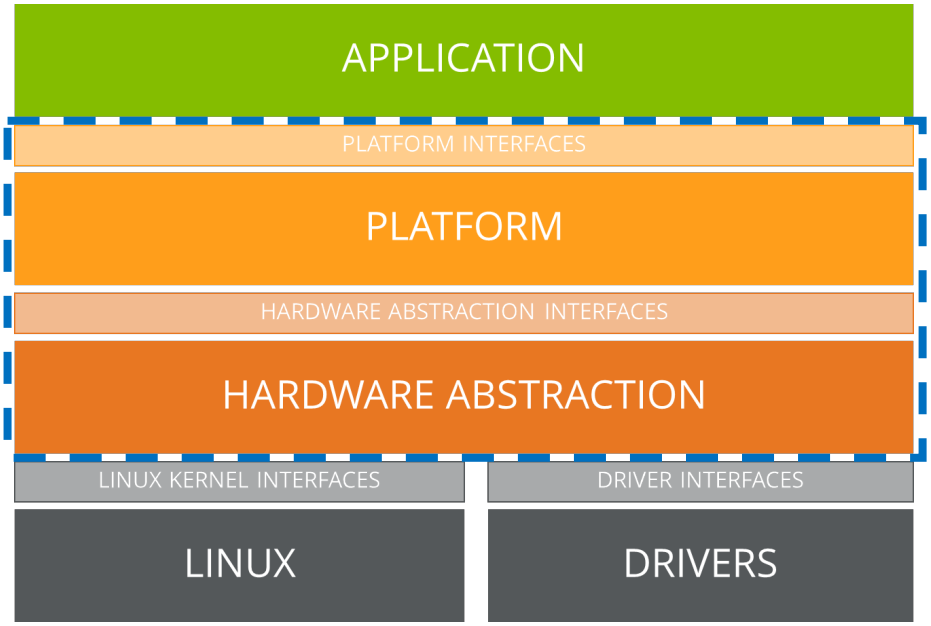
Many operators around the world are successfully delivering services using KreaTV and have benefitted from the efficiencies and cost saving across several generations of hardware and software upgrades.

FEATURES

- ✓ Seamless media handling, including UltraHD & HDR
- ✓ HTML5 UI & Application framework
- ✓ DVB support
- ✓ HbbTV support
- ✓ State of the art security
- ✓ Multi-application support
- ✓ Extensive DVR/PVR functionality
- ✓ Support for multiple boot mechanisms
- ✓ Efficient power management

DEVELOPMENT AND MAINTENANCE

- ✓ Thorough documentation with informative examples
- ✓ Extensive development toolkit
- ✓ Remote desktop/UI
- ✓ Remote logging
- ✓ Remote customer service ability
- ✓ Ready to go professional training



The KreaTV platform architecture is composed of distinct layers, each one providing a specific functionality and value, and supporting a well-defined interface used for its communication.

GENERAL SPECIFICATIONS

Media services
Broadcast TV
IP Multicast
DVB-S2
OTT/ABR
HLS
MPEG-DASH
VOD
Catch up TV
Start over TV
Subscription VOD
Transaction VOD
Media formats
Video
MPEG-2 part 2 (video)
H.264 (MPEG-4 part 10) video
H.265 (MPEG-H part 2) (HEVC) video, HDR-10 and HLG
Audio
Dolby Digital (AC-3), Dolby Digital Plus (E-AC-3)
MPEG-1 layer 2
MP3
AAC, AAC-LC
HE-AAC, HE-AAC v2
Container
MPEG-2 Transport Stream
MP4
WebM

GENERAL SPECIFICATIONS – CONTINUED

Application environment
WebKit HTML5 browser for main UI, apps and OTT services
Media Source Extensions (MSE)
Encrypted Media Extensions (EME)
HbbTV support
JavaScript API to access KreaTV platform (TV Open Interface, TOI/JS)
Multi-application framework and SDK for easy integration of apps and OTT services
Pre-integrated applications, e.g. YouTube®, Netflix®, BBC iPlayer (customer specific projects apply)
Media features
Advanced media player with integrated time-shift
Network DVR
Local DVR (scheduling, series recording)
Subtitles (DVB, Teletext, WebVTT)
Teletext app
Integrated CA/DRM
CA/DRM
PlayReady®
SecureMedia®
Verimatrix® Ultra
Widevine®
Digital copy protection
HDCP 1.4
Analog copy protection
WSS/CGMS-A

GENERAL SPECIFICATIONS - CONTINUED

Device management and monitoring
TR-069 (TR-106, TR-135, TR-181)
Third party monitoring solutions
Secure logging and data collection mechanism
Remote command and configuration via Infocast
Network protocols and standards
DHCP, HTTP, HTTPS, ICMP, IGMPv2/v3, IPv4, NTP, RTP, RTSP, TCP, TLS, UDP
Security
Hardware platform built around secure chipset
Hardware based chain of trust ensuring that only authenticated and encrypted software can be executed
Linux Containers (LXC) for process separation and sandboxing
Signature protection for persistent settings
Hardware acceleration of DVB-CSA v2, AES, 3-DES and DES crypto algorithms
Secure/Trusted Video Path on chipsets with hardware support
User interaction
IR RCU
Bluetooth Low Energy (BLE) RCU
USB-keyboard
HDMI-CEC
Open source compliance
http://opensource.arris.com
Well established process for handling open source software
Regular audits of code base for open source compliance
Open source attributions easily accessible for applications

GENERAL SPECIFICATIONS - CONTINUED

Regulatory compliance and certifications
PCoC (Power Code of Conduct)
IVA (Industry Voluntary Agreement)
WFA (Wi-Fi Alliance)
HDMI
Dolby Digital Plus
Boot loader
KreaTV boot loader
Secure Boot, supporting both two-stage (fast boot) and three stage modes
Boot methods: Multicast, HTTP, USB, SAP, TFTP (for development purposes)
Development environment and tools
SDK documentation, API reference and example TV Portal
Logging tools, both command line and GUI based
Web Inspector for JavaScript debugging, DOM inspection and profiling
Autocomplete for TOI/JS when developing in Integrated Development Environment (IDE)
UI development on desktop using external TOI/JS access (development units only)
Server components
Infocast – multicast boot and configuration server
HTTP SW update server

Certain features/applications may be subject to 3rd party licenses.

CUSTOMER CARE

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656