

# KreaTV Application Platform

## IP set-top software platform for reliable IPTV services

### FEATURES

General software platform for fast application development and integration.

Pre-integrated with leading middleware applications, Conditional Access systems and video servers.

Open standard interfaces for browser or native application level development.

Separates software and hardware for increased product lifetime.

A true multi-application IP STB software for increased performance.

Modular architecture designed for high reliability in operation.

Full scalability in number of hardware models, subscribers and services.

### BENEFITS

Reduced time-to-market.

Increased consumer satisfaction.

Ultimate flexibility to support your business case.

Increased development potential as a strategic tool.

Reduced time, resources and costs for:

- Implementation and operation of set-top boxes.
- Implementation and operation of services.
- System integration.

Fast and efficient development of new service applications.

Freedom to choose in-house or third party development.



*The Motorola KreaTV™ Application Platform is the ultimate open software platform for IP set-top boxes. It is reliable, flexible and cost-effective. It is designed to provide supreme support to your business today – and to take it safely into a successful and profitable future.*

In today's highly competitive market, retaining and attracting subscribers is of vital importance. With open interfaces and structured architecture, the KreaTV Application Platform is the ideal starting point for companies seeking to present a compelling IPTV offering.

Building on dependable operation and high performance, it also gives you the potential to easily add new functionality and services at any time, allowing the system to grow according to your business needs and upcoming customer demands. At the same time, the open platform eliminates dependence of specific hardware.

In every aspect KreaTV Application Platform will extend the value of your investment today and will keep your options open for tomorrow.

# Secure your IPTV investment

While hardware lifetime counts in years, software distribution is almost instant. This is the core idea behind the KreaTV Application Platform.

With open interfaces and the ability to run across multiple set-top box models, Motorola provides IPTV service providers with the ultimate concept for cost-effective development and integration, reduced time-to-market and added value for the consumer.

## Fast and smooth application development

KreaTV Application platform separates applications from the platform through well-defined open interfaces, leaving you in control of how the system is composed and how it should evolve. Integration of new components, development of new applications or customization of the user interface can all be done in-house, or by independent third party developers.

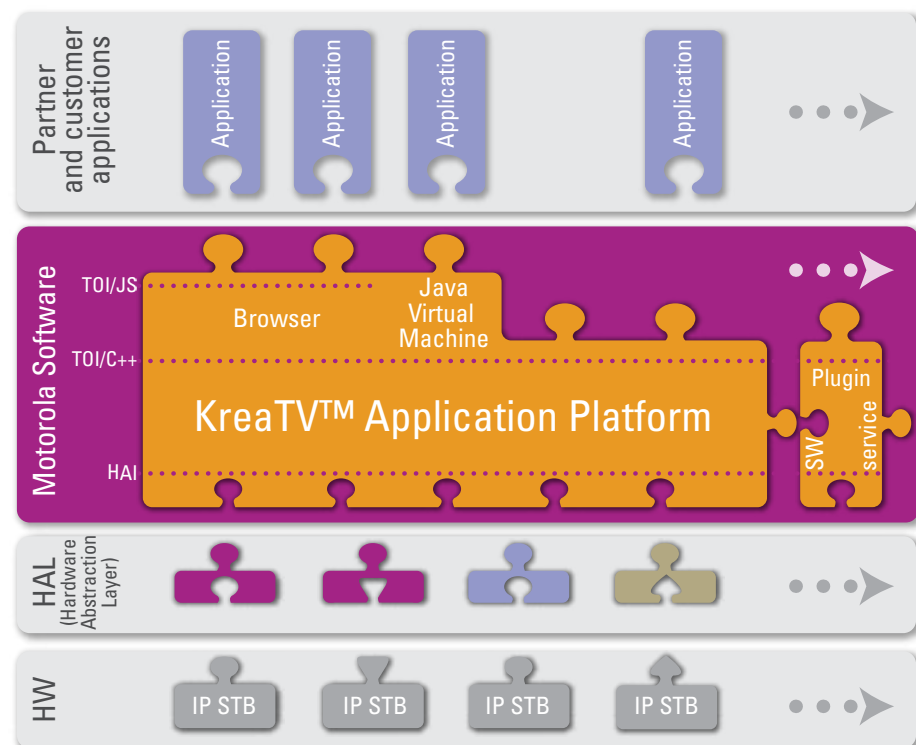
Standardized Terminal Open Interfaces (TOI) support multiple application environments enabling you to use HTML/JavaScript, C/C++ or Java, when adding new services or functionality to your system.

The flexibility of the Motorola solution will continuously support your business strategies and allows you to keep the development possibilities open. Whenever you decide to increase your range of IPTV services you can easily add new ones, like Electronic Program Guides, games, betting, home networking or karaoke. As a matter of fact, imagination is the only limit.

Develop applications in-house or engage your preferred software developer or IPTV company.

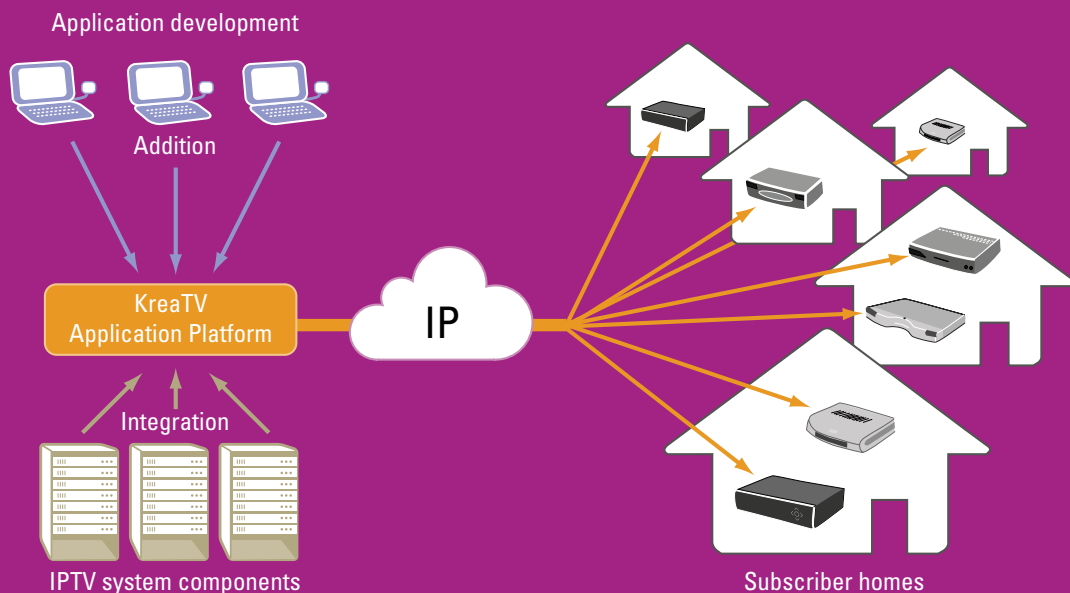
The open architecture of the KreaTV Application Platform is created to simplify IPTV service provider operations through easy integration and management. For the end-user, this means a reliable set-top solution and a better TV viewing experience.

The Hardware Abstraction Interface (HAL) enables set-top box suppliers to build standardized hardware abstraction layers, the link that ports the software to new hardware models.



As a result of technology development and service provider strategy, a mature IPTV network can include a variety of set-top boxes: high-end and low-end models, old and new generations as well as models from several set-top box suppliers.

The KreaTV Application Platform offers the possibility to develop applications and integrate system components only once, throughout the range of set-top boxes.



## Software and hardware in strategic harmony

KreaTV Application Platform allows service providers and application developers to design their products to run on any hardware chipset, with minimal or no integration work necessary.

The solution is independent of the specific hardware architecture through the KreaTV Hardware Abstraction Interface (HAI) – an open interface used for porting the platform to various set-top boxes.

From a strategic point of view this feature allows the operator to release new generations of set-top boxes for services to come and mixing hardware from multiple vendors, without interfering with the existing boxes and services in the network. When it is time to launch a new service, the application upgrade is managed by the central configuration server and accomplished via the network.

## Go for a turnkey system or develop your own

KreaTV Application Platform is designed to give you maximum freedom of choice when deploying your IPTV system. It will provide a solid base, no matter if you prefer the benefits of a pre-integrated solution, appreciate the flexibility in developing your own TV solution or seek to combine the two.

The platform is integrated with a suite of leading middleware applications, Conditional Access and video servers providing you with a turnkey solution. You will be able to focus resources on creating your differentiated values, enhancing the consumer experience by offering rich content.

## Parallel applications for increased performance

The KreaTV Application Platform allows several independent applications to run simultaneously on the set-top box in order to increase the overall performance. Additionally, applications can be dynamically downloaded in seconds from the operator's server to the set-top box – a feature that gives the option to distribute numerous services independent of the set-top box memory capacity, since one application can replace another in runtime.

## KreaTV APPLICATION PLATFORM

### EXAMPLES OF ENABLED FUNCTIONALITY AND FEATURES\*

TV/Video on Demand

EPG

Subtitling and closed caption

Digital Video Recording (DVR) and Time Shift

Internet surf

Home networking

Dynamic download

Remote application execution and control

Element Management

Video telephony

### OPERATING SYSTEM

Linux-based OS

### PLATFORM PROFILES

#### KreaTV High Profile

Supports execution of multiple C++, HTML/JavaScript, and Java applications

Native applications, plugins and portal applications

#### KreaTV HTML Basic Profile

Supports execution of a single HTML/JavaScript application (portal incl. portal applications)

### SUPPORTED NETWORK PROTOCOLS AND STANDARDS

IP version 4

TCP

UDP

RTSP (pre-integrated with the leading video server providers)

IGMP v2 (version 3 in development)

ICMP

SSL (version 3.0, 64 and 128 bits)

DHCP or Fixed IP addresses

### EXTENSIONS

Support for multiple languages

Font exchange (optional)

## KreaTV CONFIGURATION SERVER

Boot via patented Bootcast™ (multicast) or TFTP

Configuration over patented Infocast™ (multicast)

Remote reboot

KreaTV Dynamic Download

Dynamic Bootsplash over Bootcast

## THIRD PARTY ADAPTERS

Pre-integrated with leading providers of middleware applications, video servers and CA/CP and DRM systems

## BROWSER AND PORTAL

Mozilla/Firefox-based browser

HTTP 1.1 with extended support for MIME types

HTTPS

HTML 4.01

GIF, JPEG, PNG and animated GIF

CSS2.1 and 3

DOM 0, 1, 2

JavaScript 1.5

XML 1.0

XHTML 1.0

DHTML

Macromedia Flash (optional)

Netscape-compatible plug-in interface

Cookies

Virtual (on-screen) keyboard and SMS-type keyboard

JavaScript extensions for enhanced TV

Browser bookmarks

User configurable visible browser area

Full screen portals

## IPTV

System stream, program stream and transport stream

DVB-T scanning and service selection

DVB-SI

HDTV

DVR and TimeShift

Support for graphics and video mixing (alpha windows, color key, cropping and scaling)

## SUBTITLING

DVB subtitling

EBU Teletext subtitling (automatic)

Closed Captioning (VBI)

## PLATFORM INTERFACES

### TOI/JS (Terminal Open Interface/JavaScript)

Standardized HTML and JavaScript function calls for accessing services in the platform

### TOI/C++ (Terminal Open Interface/C++)

Standardized C++ function calls for accessing services in the platform

### HAI (Hardware Abstraction Interface)

Standardised porting interface in C for set-top boxes

## CHIPSET SUPPORT

Chipsets from manufacturers such as AMD, ATI, NEC, Sigma, and STMicroelectronics

\* Current enabled features and functionality subject to change without notice.



Motorola, Inc. Teknikringen 20, SE-583 30 Linköping, Sweden  
www.motorola.com/ipvideo

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