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## **Multi-Source Media Information System**

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## Introduction

There's an increasing trend for media devices such as TV sets, set-top boxes, consoles and DVD/Blu-ray players to be connected to the Internet for retrieving product updates and streamed online content.

This streamed content is usually reserved to media streams such as Video On Demand (VOD) services or digital radio and TV broadcasts.

The challenge today is to look at Internet connected media devices and ask the question what potential new services could exist that would improve the viewing and listening experience for users of media systems today.

This brief whitepaper explores several such services and technologies that are actively being researched and developed by Red Skies Limited for inclusion in any third party media device. These services are intended to be freely incorporated into any media device developed by any manufacturer, providing new features and benefits to end users, increasing sales of hardware and enabling service providers to reach new markets directly in the home.

## Problem Statement

Media systems are commonly connected to the Internet but only take limited advantage of the potential of the Internet, often only using the Internet for performing system updates and streaming media services.

Is this really the sum potential for such connected devices? What potential new and innovative services could exist using today's technology to offer new and original experiences to users of media systems?

The challenge we face today is to identify new and innovative services, to develop them and to demonstrate them in a way that enables electronics companies to incorporate and support them within their own products, driving new sales while improving the experiences of media system users. At the same time, service providers should be able to incorporate their own services, reaching large new audiences directly in the home without requiring changes to hardware.

At every step of the way, the focus should be on improved services and capabilities for users of media systems while increasing the sales of hardware and services to consumers.

### **Solution**

While not exhaustive, this whitepaper covers a few of the technologies being researched and developed by Red Skies Limited that meet the challenges set out in the problem statement.

We develop these services and technologies mostly for free, enabling electronics companies, media companies and third party service providers to increase sales and market reach while creating a vibrant new commercial ecosystem within the media space.

Our revenues come from optional premium services, from the provision of consultancy and development services to partners and from market research activities around these new technologies.

### ***Media Information Panels***

Red Skies Limited has developed an Azure cloud based service which can be called for free by any media device to retrieve information from multiple data sources about playing media.

We have demonstration media devices that showcase the potential of the service for DVD/Blu-ray, music, broadcast and videogames.

For example, while watching a film on DVD, via a live TV broadcast or through any other media service, a user can press the 'information' button which causes a web service call to be made to our media information service. This service in turn looks up potential sources of information from third party service providers and makes calls to pull together any information available for that media.

This could include calls to media companies or select third party service providers. The retrieved information is formatted and returned for display through a foldup media panel as the film plays. Clicking the information button again closes the panel.

This service costs the electronics companies nothing and the end user nothing. Some partners do provide premium services which can be subscribed to by end users but as a rule, most content is available for free to end users.

The detailed application of the service is down to the hardware manufacturer although our demonstrator hardware shows some potential uses of the service for film, music and videogames. We continue to develop this service and encourage service providers who wish to reach consumers directly in the home as well as manufacturers to get in touch.

It should be noted that we tightly manage the kinds of service that can be provided through the web service to ensure the end users experience remains the best possible. This means we do not permit excessive advertising or other content that may be unwelcome to end users. This service is run and managed by Red Skies Limited but is treated as a service that first and foremost meets the needs of consumers.

### ***Information Region Technology***

A new area of research and development for Red Skies Limited is the area of information region technology.

The concept itself is quite simple.

A film or TV broadcast is being viewed and a user wants to learn more about an actor or prominent feature within the movie. Using a touch screen, a gesture device or a more traditional form of interaction, a user is able to touch an actor or feature on screen and open a popup containing more information. If a user wants to quickly learn more about an actor in a film, select the actor and have a foldout give information about the actors other roles and other key pieces of information. If a user is interested in a particular landmark in a film, touch the landmark and learn more about it with the option to just quickly look or drill deeper through links to other online resources.

This provides a more intuitive and natural way to interact with a movie or TV broadcast and can lead into many novel uses of the technology. Hide clues in a movie or snippets of

information which users can access to enrich the viewing experience. Allowing users to simply select people or items directly in a running film is a very powerful and natural form of interaction for users.

One specific extended application of the technology is explored below under 'Region Technology Shopping'.

### **Region Technology Shopping**

Red Skies Limited is constantly exploring new media technologies with one such technology being Region Technology Shopping.

Using 'Information Region Technology', it becomes possible to link items within TV and film to real life products and shopping channels.

Product placement in TV and movies isn't new but how much more useful would it be to be able to select an item on film and find out more or even buy it directly from the film.

This might be a coffee maker on a daytime TV show, a high tech mobile phone used by James Bond in the latest 007 movie or a piece of art or designer clothing. Film and broadcast producers can embed the information needed through the web service securely which supporting media devices can use to incorporate within playing media. This allows media to be distributed before such shopping content is available with content incorporated and maintained afterwards.

For users not interested in shopping, there is no change to the broadcast but for users who are interested in an item it becomes a quick and powerful way to find and buy items within film and TV.

## **Future**

The technology outlined in this paper is only part our vision for the application of new technology to improve the media experience for users. We are constantly looking at new ideas and technologies for film, broadcast, music and videogames and welcome the opportunity to work with new partners around the world who share our passion and vision.

All of the services detailed in this paper rely on third party service providers and hardware manufacturers, generating new sales for companies around the world

## **Conclusions**

We at Red Skies Limited are passionate about the development of new media services which provide exciting new experiences for users in the home. Partnering with service providers and hardware manufacturers, we are excited about the potential for new media services and technology in the home.

Red Skies Limited is a provider of enterprise level online services and technology as well as an independent software and technology R&D company.

We are always keen to work with new partners in film, broadcasting, music, electronics, videogames and marketing on new technologies and services.

We do provide high tech demonstrator hardware to showcase technologies such as new interaction devices to help partners to identify

possible areas or research and development within their own organizations.

Our goal is to help the sector to develop new technologies while opening up new media and software services that take advantage of these new technologies in the home. This enables our partners to develop exciting new technologies while we are able to provide new services to users of such technology in the home.