



CELLOCK

Location Based Services

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Overview

Cellock is a Location Based Service (LBS) provider of mobile operators, government organizations and enterprises for 3G content and infrastructure. We cover various fields around Location based and telecommunication services such us:

- **3G content and services**
 - Live video Streaming
 - Video on demand (Sports, News, Weather)
 - Music and Video Clips
 - Live radio streaming
- **Commercial enterprise solutions**
 - Fleet management
 - Asset Tracking
 - Consulting in return of investment (ROI) in LBS
 - Navigation systems – telematics
- **Solutions for Wireless carriers**

Cellock constant challenge is finding new business and revenue opportunities for wireless carriers.
- **Government Organizations**

Given the increased need for safety and security in today's world, government agencies can apply LBS through a variety of applications. Cellock Geographical Information System (GIS) provides easy manipulation of mapping information on road and geographical networks.
- **Mobile Location Systems**
 - Security applications and military
 - Content and GIS information for the tourism industry
 - Entertainment games

Video and Radio Streaming

As the 3G network grows and deals are signed across Europe, 3GPP will become the dominant format for rich media distribution to mobile devices.

Streaming Video has been developed from the beginning with the needs of the wireless operators in mind:

- It comes out-of-the-box as a fully clustered system. No need to engage with systems integrators to build the clustered solution and integrate it with your legacy environment.
- It addresses the bandwidth variation aspects of the wireless networks in a way that makes sense in the cellular domain - it is client agnostic! The operator can deploy handsets with different client players, and indeed even support handsets that are roaming-in on its networks.
- Developers of hundreds of existing multimedia authoring applications can inherit **3GPP** and **3GPP2** functionality for their products
- It is able to transcode and stream between all the different 3GPP/3GPP2 audio and video codec, including Windows Media
- Content creators already using MPEG4 based video can easily **deliver media to a whole new audience** via new, high-speed wireless networks.

Cellock therefore differentiates by providing the following benefits to the operators or content providers.

- Faster and cheaper to market due to the out-of-the-box clustered solution that can integrate into legacy systems easily.
- The industry unique client-agnostic dynamic bandwidth adaptation (DBA) allows operators to stream optimally to ALL handsets.
- Wide codec support enables use of the widest range of content sources, allows for maximum flexibility in handsets deployed and alleviates any future media/network/device compatibility issues.

Given the roadmap and commitment of Cellock to the wireless space, the operator can be sure that their investment is future proof.



Figure 1 - Video streaming

Video on Demand

Taking a big step further streaming video, Cellock Video on Demand Content is utilizing patented technology for semiautomatic process of Video Streaming converting it to thematic video - video with meaning. Without an extra effort from the telecom provider or the TV station or channel, cellock increase revenue for both TV station and telecom carrier.

Many different appealing applications can be build. A few of them are:

- News
- Weather information
- Sport events clips
- Advertise monitor and report
- Education Video clips
- Fashion clips
- Product presentations

By using the innovative technology of our partner AdGrabber and Fraunhofer Institute for Computer Graphics (IGD) Cellock services target primary and secondary segments of the European and worldwide advertising and media industries. It scopes to provide fast service by using on line data in real time 24/7 for any TV spot already stored in the system's database and 12-hour increments for new spots and on the basis of the ability for downloading. As a platform in depended internet service, built based on state-of-the-art components.

Image analysis and pattern recognition techniques are used in order to support real-time automated validation of live broadcasts; they are automatically filtered by detecting advertisements that are going to be added in the database later on. The extraction is also available on-line as it is providing a daily report of a particular advertisement and TV station broadcasted in real time.

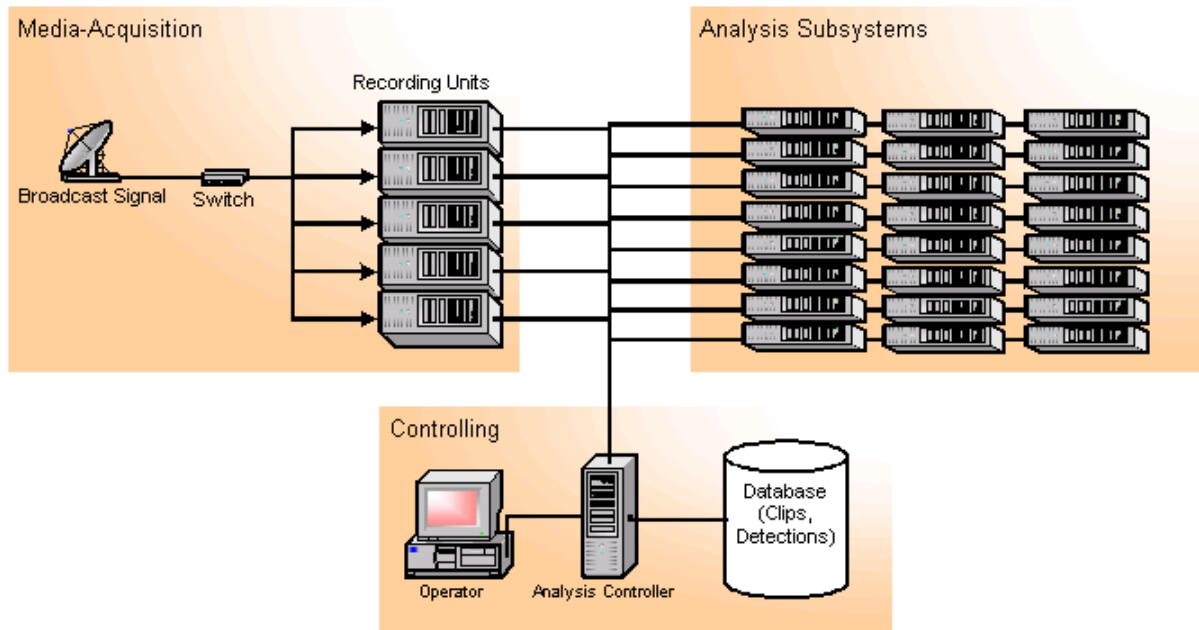


Figure 2 - Media Acquisition process

Video on Demand - Content

News

Using the above technology, each day the system automatically captures News on various channels all over the world. Then news is split into thematic news with description and User is able to see a menu list with different subjects with Subject description and details. For example for breaking news of CNN:

- [Tropical Storm Ophelia threatens Florida](#)
- [Oil probe faults Annan over son](#)
- [Ford recalling 3.8 million trucks, SUVs](#)
- [American hostage rescued in Iraq](#)
- [Pres. Bush pays tribute to Rehnquist](#)

User can select the title link and see the appropriate Video playback on his mobile, (30 sec. video clip)

Weather Information

Weather information is analyzed 24h a day in various spots all over the world. Channel video weather information is been captured for a particular country which is categorized into areas.

Custom animation of weather forecasts is being created by using satellite weather forecast systems. User is able to see weather forecast videos or animation for a particular country or place of his/her choice.

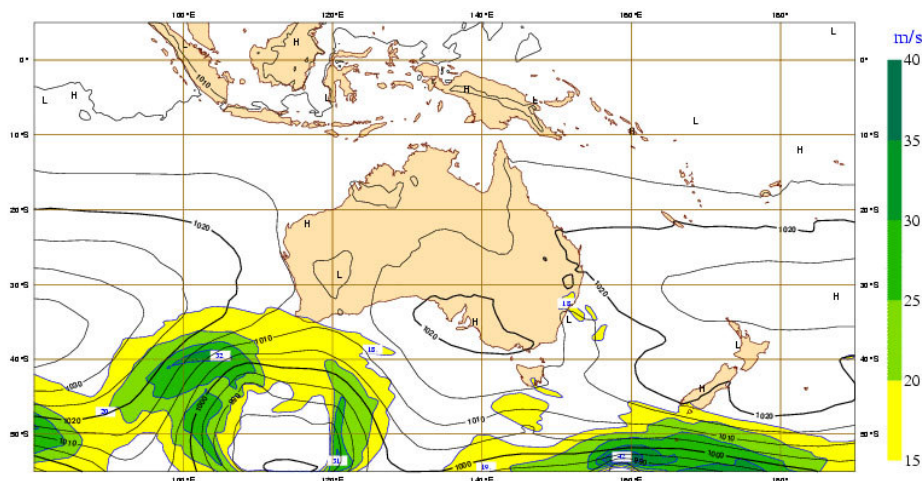


Figure 3 – Forecast t+072VT, Surface Mean sea level pressure / 850-hPa wind speed.

Advertise monitor and report

- **Monitor**, a 3G TV advertising spot monitoring system that digitalizes TV station signals in order to capture and store TV spots in a database. Within the database the operator according to its query, will be able to search and define profiles as then the system will generate real time report. As a result the user friendly interface will present TV spots monitored in the last twelve to fourteen hours by also having the ability to update the database. Cellock also offers the user to download any TV spot desired.
- **Voice**, a 3G and web-based automatic voice recognition (AVR) system that retrieves voice data from the main system's database. The operator has the ability after defining keywords to search the database. As an output the interface will present all audio events based on the already defined operator keywords that were audit in the last twelve to fourteen hours, specifying what time and date they were monitored.
- **Alerts**, a stand alone system that notify operators with 3G video , mms or e-mail alerts about queries, previously defined by them. Each operator can define desired keywords that the system will automatically monitor daily any kind of data based on these keywords. As an output the interface will notify the operator with the relevant content e.g. of a competitor's advertise, when it has played and in which channel.

Sport event clips

Sport clips are one of the best content revenue for telecom carriers. You can now have sport video clips directly to your 3G phone. Clips can be delivered in the following ways:

- Choose a clip depending on the game you want to see (Football, basketball, tennis, etc.)
- Automatic receive a clip based on your preferences. E.g. when a specific team scores.
- Video clip of the day, (NBA countdown clips)
- Extreme sports clips (windsurfing, kite surfing, climbing etc)

Education video clips

Receive educational clips based on your preferences or choice. You can select from a list of educational videos from:

- National Geographic
- Technology clips
- Financial clips
- Video games clips
- Health clips and fitness
- Horoscope clips
- Movie clips
- Fishing



Fashion clips

Receive video clips from the major fashion designers, including:

- Women fashion designs
- Men fashion designs
- Children fashion designs



Product presentations

You can see specific product presentations, categorized.

- Car presentations
- Yacht and Boating
- Computers



Digital Rights Management (DRM)

Digital Rights Management (DRM) is an essential part of a secure hosting solution. Digital rights management is used to **protect the material from being used or re-distributed without the distributor's permission** and allows the content owners to control how their content is delivered and played. When a user wishes to view DRM protected content, they are required to obtain a license.

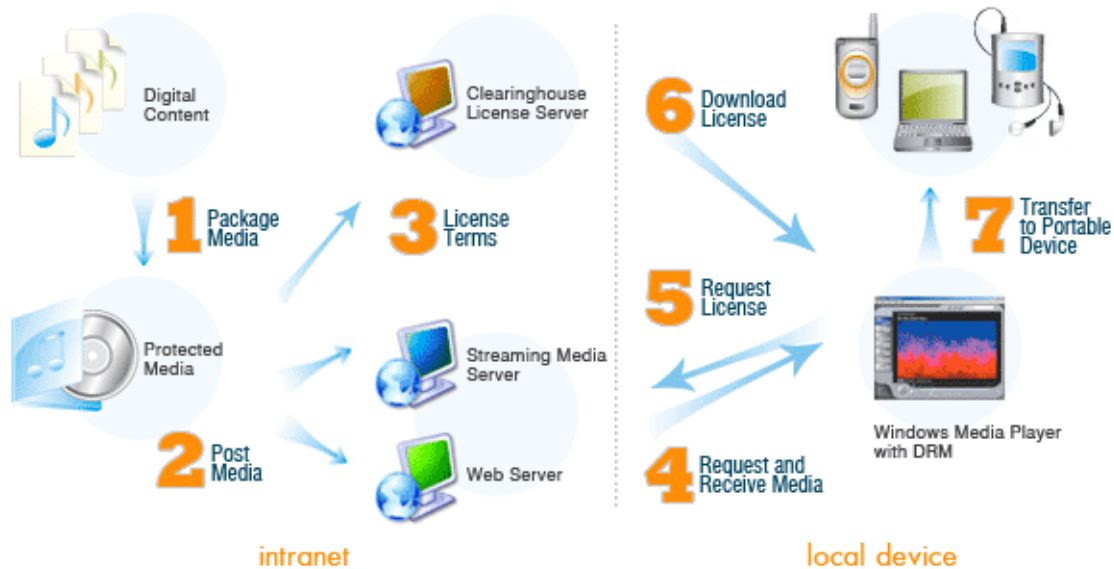


Figure 5. Digital Rights Management Platform

Licenses stipulate conditions that can include:

- ▶ payment
- ▶ registration/login
- ▶ restrictions on copying
- ▶ limitations on burning to CD
- ▶ a custom page (usually an advertisement) that users view before license delivery; and
- ▶ many others.

A failure of the above processes for license acquisition will result in non delivery of the license. With the payment requirement for license delivery, DRM supports a wide range of business models including rental, subscription, and pay per view.



The delivery of licenses can be transparent to the user and bandwidth consumption is minimal.

The content owner has complete control over the rights included in the license. DRM account holders are able to view administration pages where they can decide which licenses to issue for their protected content.





Begin dates, expiration dates, transfer rights and security levels are just some of the rights content owners will be able to control. As well as rights, owners can decide on the delivery method such as free delivery, delivery for payment or a custom delivery method. All changes are updated live, so your conditions take effect immediately.

Licenses are delivered and stored on the end user's computer. If end users wish to share their DRM-protected content with third parties, the content is still protected and those users will have to go through the license acquisition process separately.




















So whatever your needs, whether to protect content for commercial or non commercial purposes, DRM provides a highly flexible and secure solution for protecting your content.

Content Partners

TV Channels

	Sigma TV		RIK
	Mega Channel Cyprus		RAGE

RADIO stations - CYPRUS

	Arion Radio		Astra Radio
	Radio Athina 100.7		Choice 104.3
	Cosmos Radio 95.2		Radio Dee Jay 93.6
	Flash 98.2		Kanali 6 106
	KissFm 89		KlikFm 105.6
	Logos Radio		MixFm 102.3
	Radio Pafos 92.5		Radio Proto 99.3
	RockFm 98.5		SportsOne
	Super RAD104.7		Zenith 96.4
	Quarks Radio		



RADIO stations - GREECE



Aktina Radio 95



ANT1



Prime-Time



TRM TV



Radio Feres 99.3



Libero Fm



Rythmos



Studio Lefkatas



Sok Fm



Athletic Radio