

CLOAKWARE DRM SOLUTIONS

OMA DRM 1.0 CLIENT FOR ANDROID™ – BASED DEVICES

INTRODUCTION

Cloakware OMA DRM 1.0 Client for Android™-based devices successfully puts into practice the digital rights management (DRM) standards established by the Open Mobile Alliance™ (OMA DRM 1.0) for applications operating in the wireless space.

THE FUTURE OF MOBILE CONTENT SECURITY. TODAY.

DRM systems have become increasingly important tools for content owners interested in protecting copyrights and retaining the value of their digital property. The goal of the OMA standards for DRM is to promote compatibility and interoperability among DRM-protected content formats and wireless device platforms.

For Android-based devices, the open source community has developed a set of generic OMA DRM APIs specifically designed to meet the OMA DRM 1.0 Client (Forward Lock only). Irdeto has taken its industry-leading expertise on OMA DRM and has created a product to address the emerging Android market. This allows the mobile content ecosystem the ability to securely deliver content to its consumers, protect the artistic and intellectual property, and allows wireless carriers a protected revenue source to capitalize on their network investments.

THE CONSUMER EXPERIENCE

For the mobile consumer, a successful DRM experience should be simple and non-intrusive. The consumer should be able to purchase, download, and access media content with a minimum of interaction. The following scenario demonstrates a typical consumer, Lori, as she uses a wireless device with the Cloakware OMA DRM 1.0 Client to get the content she wants:

- **BROWSE & PURCHASE:** Lori uses a storefront to browse available content and make a purchase.
- **DOWNLOAD CONTENT:** Lori downloads the content to her device by clicking a link on a web page provided by the storefront. Once Lori clicks the link, the download process behaves like any other file download in the Android Browser. Content and licenses are automatically downloaded and processed by the OMA DRM 1.0 Client.
- **ACCESS CONTENT:** Once the content is delivered, Lori can access her content with media applications using Android DRM APIs. She can simply open the file in the same way she opens any file.

KEY FEATURES:

- Easy to use tools
- Control Flow Transformations
- Data Flow Transformations Key Hiding

KEY BENEFITS:

- Secures your software and IP in non trusted environments
- Reduces time to market for your application or device without compromising security

SUPPORTED PLATFORMS:

- ANSI C and C++ for all major platforms
- Linux, Macintosh, Windows, Symbian
- Embedded devices



When an OMA-protected file is opened, the OMA DRM 1.0 Client silently checks for valid licensing, decrypts the secure content, and provides it to Lori's media application.

- **RENEW LICENSING:** When Lori needs a new license for her content, she is automatically sent to the storefront to purchase new licensing.
- **SHARE CONTENT BETWEEN FRIENDS:** When Lori wants to send a song to a friend, all she needs to do is send the secure file.

The OMA DRM 1.0 Client checks that the file can be redistributed, and generates a file for redistribution. In addition, the OMA DRM 1.0 Client enables Lori's friends to quickly and easily acquire their own licensing so that they can enjoy the secure content.

THE CONTENT PROVIDER EXPERIENCE

A key revenue driver for carriers is the ability to securely deliver and recognize revenue from premium content services. First run movies, music, games and subscription services all provide multiple opportunities for revenue recognition.

At the same time, content piracy is a paramount concern for providers – it erodes revenue, impacts brand negatively, and can lead to legal action if it is proven that due consideration was not given by the content provider to provide sufficient content protection.

THE DEVICE MANUFACTURER EXPERIENCE

When developing a smartphone or featurephone device, consumer electronics manufacturers will undoubtedly be required to ensure their device capabilities include the ability to support the keys and content protected by digital rights management. The ability of the manufacturer to adjust to the carrier's requirements by providing an API for onboard applications to support content playback is key to a successful device and/or content service launch.

THE CLOAKWARE OMA DRM 1.0 CLIENT SOLUTION

Cloakware's OMA DRM 1.0 Client for Android features the OMA Content Ingestion Agent, which processes all secure content and licenses similar to Android's normal file download process. Additionally, the Client features the OMA DRM Engine, which responds to requests by device applications for access to OMA secure content for rendering, file management, or peer-to-peer sharing. The OMA DRM Engine checks for licenses, evaluates the rights language of the license and decrypts the content for the application, working in conjunction with Android software.

FEATURE SUMMARY

The Cloakware OMA DRM 1.0 Client supports all mandatory and optional OMA DRM features, as well as several features specifically designed for Android devices:

- Support for all three OMA DRM delivery methods: forward lock, combined delivery, and separate delivery
- Peer-to-peer sharing and licensing of shared content
- Support for Android application programming interfaces
- Advanced security features to encrypt all forward-locked content and prevent redistribution in addition to a secure clock that maintains the integrity of licensing constraints
- Logic to evaluate OMA DRM rights expression language and enforce licensing constraints, ensuring controlled consumption of OMA DRM content
- Maintenance of rights objects received from the rights issuer
- Garbage collection functionality to remove expired rights objects and optimize storage consumption on the device
- Streamlined device integration
- DRM User Interface that supports 27 languages and localized customizations
- Support for OMA congestion ingestion via URL, including download descriptor processing