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| Source:\* | JaeSeung Song, KETI, jssong@sejong.ac.kr  Minbyeong Lee, Hyundai Motors, [minbyeong.lee@hyundai.com](mailto:minbyeong.lee@hyundai.com) |
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# Introduction

This contribution introduces a solution to use OMA DRM for the license management.

If there exist OMA DRM contents that need to be distributed via oneM2M platform, we can reuse OMA DRM mechanisms as much as possible.

### -----------------------Start of change 1-------------------------------------------

# 8 Proposed Solutions

*Editor’s Note: The section provides solutions to the required functions identified in the previous section.*

## 8.1 Solution: Key Issue 1 – OMA DRM

*Editor’s Note: Each Solution section references one or more key issues identified in the previous section. A proposed solution needs to describe how the associated key issue(s) can be resolved.*

Digital rights management (DRM) tools or technological protection measures (TPM) are a set of access control technologies for restricting the use of proprietary hardware and copyrighted works. DRM technologies try to control the use, modification, and distribution of copyrighted works (such as software and multimedia content), as well as systems within devices that enforce these policies.

Although oneM2M supports its own access control policy, there is a need for oneM2M to support OMA DRM if the content is under the subject of OMA DRM and a specific license scheme is described.

For this, it is necessary for oneM2M platform to support DRM contents as oneM2M resource. Then oneM2M Applications which don’t have enough computing power or memory to support DRM client can use OMA DRM contents via oneM2M platform that supports OMA DRM client function.

In order to do this, the following enhancements can be considered:

* DRM Interworking Proxy (DRM-IPE): oneM2M interworking function for OMA DRM. This logical entity gets information from  oneM2M and interacts with OMA DRM server to check rights for the contents
* oneM2M resource for DRM contents: oneM2M resource holds OMA DRM contents as well as required information to use the contents for AE



**Figure 8.1-1 High-level architecture shows resource management under OMA DRM**

With Figure 8.1-1, we can consider a use case where an oneM2M application wants to download OMA DRM data stored in the oneM2M platform. The application sends a request to the IoT platform to download OMA DRM contents. The platform processes the request from the application and triggers OMA DRM procedure via OMA DRM IPE. OMA DRM IPE downloads the requested contents and the corresponding right object. In this step, OMA DRM IPE behaves as an OMA DRM client on behalf of the application. The downloaded contents and corresponding right object (RO) should be stored in a resource for the application with proper ACP (e.g., number of reads, only accessible by the application). The application gets a response for the success of OMA DRM download. When the application needs to access the downloaded contents, it sends a request to the downloaded contents stored in oneM2M platform. Then the IPE performs decryption and provides the decrypted contents on behalf of the application.  
  
 *Editor’s Note: Further description and procedures are needed to be added.*

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