Proxy Architecture on DRM Service

draft-zhipeng-pkix-drm-proxy-architecture-01

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Background(1)

- DRM specifications have been published, such as OMA DRM2.x
 - The DRM specifications have researched the scenarios on DRM Services, such as "Join Domain", "Acquire Rights", etc.
 - The DRM protocols towards the DRM services have been standardized in the DRM specs.

Background(2)

- The PKI is the base stone of the DRM security.
- The trust mechanism have been well researched in the area.
- CRL service is rather mature for verifying the status of device in the service.

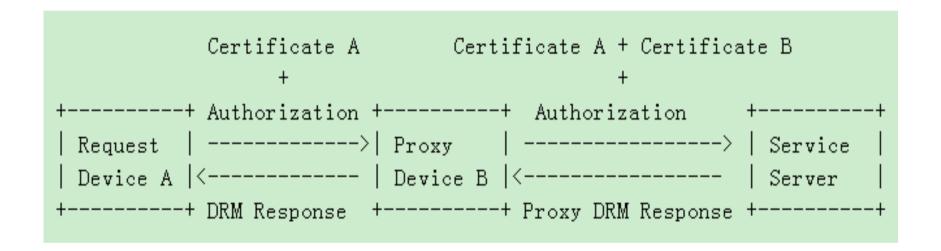
Scenarios for this draft

- Proxy entity in the service architecture
 - Monitor or control the entities under the proxy.
 - Simplify the service implementation for multiple personal devices.
 - Well fulfill the DRM services.

Proxy Architecture

```
+-----+ DRM Request +-----+ Proxy DRM Request +-----+
| Request | -----> | Proxy | -----> | Service |
| Device A | <----- | Device B | <----- | Server |
+-----+ DRM Response +-----+ Proxy DRM Response +-------
```

Trust Architecture for proxy DRM Service

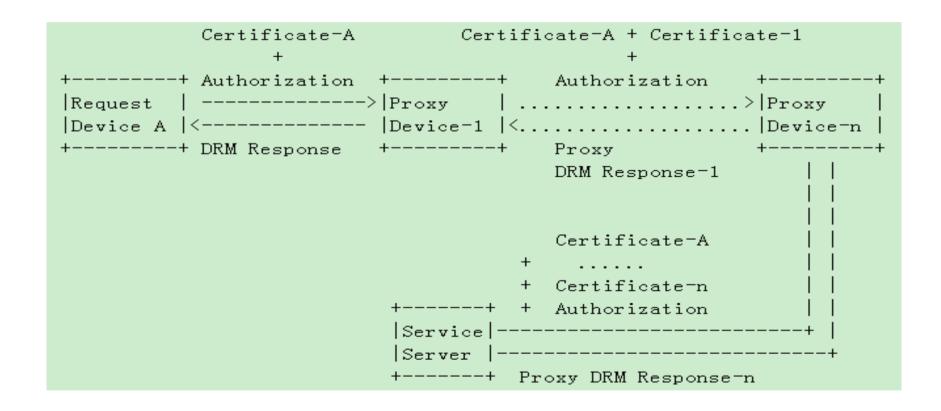


Authorization Document

- The key media used to construct the trust chain for the DRM proxy service
- The Authorization Document is composed of:
- -- name of Request Device
- -- CertId of Request Device
- -- name of Proxy Device
- -- CertId of Proxy Device
- -- authorized service rights
- -- extensions
- signature algorithm
- signature

Multiple-Proxy Architecture

Trust Architecture for Multiple-Proxy DRM Service



Standardization

- The architecture of proxy DRM service;
- The trust architecture for proxy DRM service;
- The Authorization Document.

Questions

- · Comments welcome.
- Thanks.