3GPP TSG-SA4 Meeting #27   **Tdoc S4-030510**
Munich, Germany, 7-11 July, 2003

Title:	LS on DRM for Progressive Download
Release:	Release 6
Work Item:	PSS-Rel6

Source:	3GPP SA4
To:	OMA MAG/DL+DRM
Cc:	SA3

Contact Person:
    Name: Ralph Neff
    Tel. Number: +1 858 731-5408
    E-mail Address: neff@pv.com

Attachments: none

---

1. Overall Description:

The 3GPP SA4 working group is in the process of specifying a method for Progressive Download of audio/visual files for inclusion in our Release-6 specifications. Since Progressive Download will involve delivery of a complete .3gp file, we are interested in providing a corresponding DRM method to allow protection of the content. We would thus like to request that OMA MAG/DL+DRM subgroup consider this issue, and advise us as to whether a solution could be made available as part of the OMA DRM 2.0 specification. 3GPP SA4 would be interested to work with MAG/DL+DRM toward this goal, and such work might be considered a new part of our joint work on a content format for streaming DRM.

3GPP Progressive Download will rely on .3gp files which have been specially authored to allow the client to begin rendering the content after only a portion of the file has arrived. This is done by placing the file metadata at the start of the file, and by interleaving the media data in suitably sized chunks (e.g. 1 second of audio, 1 second of video, 1 second of audio, etc.)   In the unprotected case, a typical client session would proceed as follows:

- Multimedia Client (e.g. through the browser) obtains a URL pointing to a .3gp file which has been authored for progressive download.
- Client requests delivery of the file via HTTP GET.
- File contents begin to arrive. Client monitors the growing file and decides (based on file structure and current network conditions) when enough of the file has arrived to allow rendering to begin.
- Client begins to render the content, while continuing to receive the file. If the client's estimate of network conditions holds, then rendering will continue until the complete file has arrived and all media has been successfully played out.
- Depending on the client implementation, the user may be allowed to pause the presentation, or to seek within portions of the media which have arrived, without interrupting the download.

3GPP SA4 acknowleges that simple protection (e.g. Forward Lock) for progressively downloaded files can be covered by the existing OMA DRM 1.0 specification. However, we are interested to discuss the case of more extensive protection, involving encryption. We are not certain that the separate delivery case defined in the current DRM specification could be used to cover the progressive download scenario described above, and in particular we are wondering if any changes to the Content Format or to the DRM Agent rules would be needed.

2. Actions:

3GPP SA4 asks OMA MAG/DL+DRM subgroup to consider the progressive download scenario described above, and to comment on whether any changes relative to OMA DRM 1.0 would be needed to provide suitable

protection for progressively downloaded content. We would also like to know whether a solution could be provided as part of OMA DRM 2.0.

3. Date of Next TSG-SA4 Meetings:

TSG-SA4 Meeting #28   1-5 September, 2003   (Location Erlangen/Nuremberg)

TSG-SA4 Meeting #29 24-28 November, 2003   (Location TBD)