Content Protection in HTML5

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Service Provider Content Protection Goals

- Deliver a broad range of premium content to HTML5-based clients
  - Earlier distribution windows and higher quality.
  - New distribution channels, e.g. UltraViolet streaming.
  - Support for multiple protection methods.
- Reach more platforms
  - A range of hardware and software accessibility from open personal computing to controlled retail devices.
  - General purpose to embedded user agents.
  - A range of hardware and software security environments.

HTML5 *does* support protected content

- Plugins
  - `<object>, <embed>`
  - Very flexible
  - No integration with HTML5 media – audio/video elements, multiple resource selection, …
  - One way API – page to user agent
- Native user agent support
  - `<video>`

```
<source src=someProtectedContent.cp type='MIME; cp-params="…"'>
```

  - Integrated with audio/video elements, multiple tracks, resource selection, …
  - User agent and content protection method specific
  - No standard protection API between Web content and browser

What else could be done?

- Use <audio> and <video> to play content protected by methods not built into the user agent
  - Blend <object> /<embed> external resource reference with video/audio element APIs
- Provide Web content with common interface to content protection
  - Use video/audio element APIs
  - API for passing content protection information between web content and user agent
- Enable servers to authenticate applications and users
  - Common authentication interface
- Provide information so page server can make content available depending on level of protection available in user agent
  - Is HTTP user agent string enough?
  - API so page can determine UA protection capabilities

What Next?

- Web and TV Media Pipeline Task Force discussing content protection use cases and requirements.
- Wiki page to collect and discuss implementation ideas
- Content protection requirements will be part of the TF deliverable
- Determine WG(s) to move forward