ePub3 as a Tool Consumer
VST has always been a Tool Provider.
We think of the LMS (Tool Consumer) because it needs to use tools.
New ePub3 feature: Allow a ePub3 to be a Tool Consumer
  • Can be used to launch user to proprietary publisher website
  • Or it can be used to tie any number of arbitrary 3rd-party tools into the book

Implementation:
  • ToolConsumer is implemented within BusinessCenter
  • Book launch action opens an external browser window
  • Uses LTI 2 TC (with its own toolproxy) to specify credentials, parms, etc
Simple LTI launch of ePub3

[1] User clicks on book link in learning system and delegates action to LTI.
A quiz returns an outcome and forwards it the address provided by the LTI launch (v 1.1+ or v2.x). This is in turn forwarded to the LMS grade book. (Note: VST also supports an etextbook friendly pull model for bulk outcome harvesting. To be supported in a coming LTI v2.x service).
epub3 launches to separate Tool

[6] A special link in the epub3 invokes an ‘IntraBook launch’ to any specified LTI1 or LTI2 Tool Provider. VST forwards this action to a VST-embedded LTI2 Tool Consumer.

[7] LTI TC creates a LTI 1/2 launch message. It can optionally auto-forward custom_* parameters (and others) from the original launch epub3 launch (step [3]).

[8] Browser POST auto-submits to TP.

[9] 3Party TP opens the launched tool.
Common launch domains

- If common domain
  - Same Tool Provider
  - Same consumer key
- Then
  - Inner launch is just forwarding the message/service to next endpoint
Cross launch domains

- If differing domain
- Then for forward message
  - Validate outer launch
  - Re-sign to inner launch
- For reverse message
  - Validate inner launch
  - Re-sign to outer launch
If the tool has an outcome (optional), it forwards the outcome to the LTI result service (v1.1, v2.x, or proprietary) that was specified in the initial launch; i.e. step [3].

If the 3Pty Tool is in another domain than the learning system return calls will need to detour through [12].

The callback service must validate and recredential before...

the common return to the outer service.
Summary

• IntraBook launch brokers an LTI launch
  – Preserving user, context
  – Plus matching custom_ or Passthru.<variable> substitutions

• Forwards and callbacks are possibly recredentialed

• Interface contracts are stored in broker as LTI2 tool proxies
  – But launch to LTI 1 or LTI 2

• The brokering Tool Consumer + credentials + contracts are all server based