A universal channel delivery context and device information repository

A proposal to W3C Mobile Web Initiative for collaboration with OMA

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Problem statement

☒ We believe that the single most pressing problem met currently when developing, testing or deploying mobile product, applications or services is:

  – the lack of information about the channel / device delivery context and related device information

☒ Numerous W3C, OMA work and other standard activities (e.g. JCP) have identified this issue and tried to partially address aspect of it. See for example analyses provided by the W3C Device Independent WG, the CC/PP work, the UAProf WG, JCP JSR 188, …

☒ CC/PP, UAProf provide mechanisms to access some device / channel information. Today such context information is often lacking, incomplete or even incorrect.

Proposal

☒ We recommend the establishment of a device / channel information repository that would store information available about all known devices and channels.

☒ We propose W3C and OMA to collaborate on completing the standard formalism to describe this information:

- Should cover all relevant device information
- To build "one web", this should go beyond just mobile devices

☒ We propose W3C and OMA to collaborate to "host" the repository roots

High level design point

☒ We envisage a repository design so that:

- One or multiple root can be maintained by international consortiums like W3C and OMA

- The repository can be hierarchically searched for device information:

  ☒ Per device model:
  - As provided by device manufacturers
  - As collected / needed by service providers

  ☒ Per customized devices models:
  - As customized by:
    - Service providers (e.g. operators)
    - Enterprises
    - Users

  ☒ Per device:
  - When authorized / as authorized by or for user
    - e.g. an operator or enterprise may allow access to user specific device information, when requestor is authorized to do so.

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High level design point

- Certain levels may required authorization / subscription:
  - ☒ e.g. additional information provided by a third party device profile service provider available with a subscription
  - ☒ e.g. user specific device information
- Certain information may be customized to specific purposes
- Repository is "distributed" and each node may be maintained by appropriate actor (e.g. device manufacturer, operator, enterprise, user, third party)
- Data entry is performed by authorized administrator of the node or parties that it authorizes
- Similar design concepts to DNS and UDDI
- Accessible from a OMA point of view as an OMA device profile enabler

Logistics

☒ W3C and OMA should collaborate to design / complete:

- mechanisms to express device information

- repository context

☒ W3C could own/administer web root of the repository with mobile and non-mobile branches

☒ OMA could own/administer mobile root node