International Workshop on the Implementation of a Device Description Repository

Position Paper

by

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Overview: dotMobi and Device Descriptions

Over the last year or so the Sponsored Top Level Domain ".mobi" has become familiar to many as a domain whose aspiration is to improve the mobile user experience of the Internet. dotMobi has been very active at the W3C as a strong supporter of W3C's Mobile Web Initiative and has made a major contribution to the Mobile Web Best Practices. dotMobi is the only top level domain that supports W3C recommendations to the extent of making them part of the rules for domain registrants.

dotMobi's interest in device descriptions goes beyond what is required for mobile devices accessing the Web and extends to encompass email and all other aspects of data on the move such as ring tone compatibility, games and other aspects of the mobile experience. In short, anything that involves interaction of a mobile device with a server on the Internet is in scope, and device descriptions must accommodate that diversity.

dotMobi believes that accurate device descriptions are a key underpinning of improvement of users' experience, while mobile, of the Web and the Internet in general. It intends to operate a publicly accessible device repository in support of this.

For these reasons, dotMobi has a keen interest in the compilation, exchange and use of device descriptions, wishes to see open and standard mechanisms for these and related purposes and wishes to attend the workshop.

Building on Work to Date

A great deal of work has gone into this area in the past. Notably from OMA in the form of UAProf, W3C's earlier work on CC/PP, IETF work under CONNEG, and various open source initiatives – in particular WURFL and DELI. This work provides an underpinning to work going forward and should be built on.

The past initiatives have had varying levels of success and acceptance. It is important that in establishing a framework for the future the lessons of the past are learned and that the work is pragmatically grounded. dotMobi favors the establishment of a formal strength and weakness analysis of past work.

dotMobi favors an incremental approach which allows the rapid delivery of useful results which can be built on based on operational experience.

Features of the Device Description Repository

dotMobi broadly agrees with the positions outlined in the documents produced by DDWG [Ecosystem, Landscape and Requirements] and believes the following features of Device Description Repositories are of great importance.

Trust

Contributions to the Repository will have associated with them various levels of trust. A mechanism for denoting trust is of great importance. The precise nature of the mechanisms needs further discussion. For example, contributions from device manufacturers will have associated with them a great deal of trustworthiness, however there are likely to be aspects of the device that need to be described that device manufacturers may be less willing to reveal – especially where that would reveal aspects of the device that could be perceived as deficiencies. Yet working around deficiencies is of great importance, and contributions from the community of developers will remain important. Distinguishing between informed contributions and less informed ones will be a challenge.

Interfaces to the Repository

dotMobi believes that a request/response and batch download of the database will form important use cases. dotMobi also believes that other forms of access will be important. For example, in some browsable or textual form, to facilitate discussion about the development of techniques among a developer community.

Enabling Technologies

Aside from the key enabling technologies of the various APIs and other interfaces that are required for a successful Device Description Repository infrastructure, dotMobi believes that the following are important in respect of successful infrastructure.

Systematic Device Identification and Reporting

The Device and the User Agent both require a mechanism for systematic identification, especially of different versions, and an effective means of reporting this information.

dotMobi believes that it will become increasingly important to identify not only the User Agent but other applications that may be co-resident in the device that were not installed at the time of purchase. Additionally, identification of the temporary attachment of external additional hardware components (such as keyboards and printers) is likely to become increasingly important. This might lead to the need to identify software and

hardware components as well as devices and user agents. Notification of changes in configuration is clearly important.

dotMobi believes that it will become increasingly difficult to provide a precise definition of 'mobile device' and that the repository should not be constrained by any particular current interpretation of what that means.

Applicability Beyond Browsing

dotMobi believes that the work of defining the framework should accommodate needs beyond Web browsing. While focusing on the needs of Web browsing as an initial deliverable, the work should take into account the needs of other applications, such as email, which overlap significantly with those of Web browsing and should not require the establishment and maintenance of separate infrastructure.

Conclusions

dotMobi wishes to see the W3C develop the framework necessary for successful Device Description Repositories, building on and learning from the lessons of the past.

dotMobi wishes to see an approach that combines flexibility for extensions of both device and application types, coupled with a pragmatic, incremental and early deliverable approach.

dotMobi wishes to see an approach that accommodates the contributions of device manufacturers working in harmony with a community process.

dotMobi would not support the idea of W3C building or maintaining a public Device Description Repository of its own.

dotMobi intends to be an active contributor to this work, as it has been to the Mobile Web Best Practices.