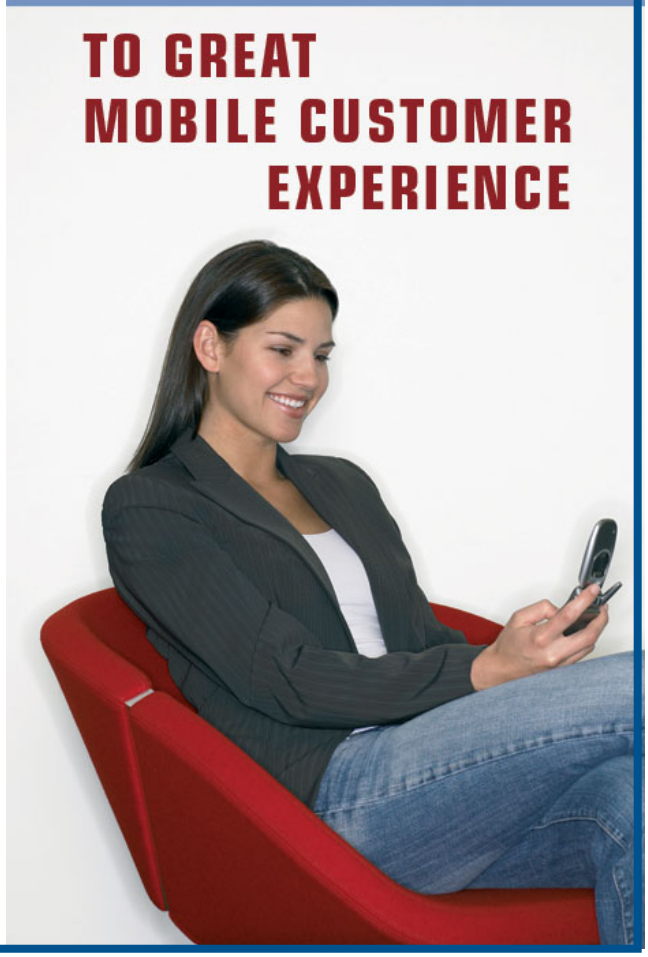
W3C Mobile Web Initiative International Workshop on the Implementation of a Device Description Repository

Position Paper
May 31st, 2006



zandan
Advancing Mobile Experience

1. POSITION REGARDING THE DEVICE DESCRIPTION REPOSITORY

Minimal set of information that the DDR needs to be useful

The essential device attributes currently listed in the Device Description Landscape document represent mainly what is needed to do a **successful content rendering**.

However we consider that for such a database to generate broad momentum and acceptance in the industry, it should go beyond that point, **by fully supporting some additional information that is today critically needed.**

Based on our experience and customer feedback, to make sure that a service really works as planned, with maximum reliability and satisfaction for all users**, the service needs a lot more tuning than what would be possible with only content rendering device information.**

Some example of additional information we consider needed in a DDR:

- **Complete non-markup object support:** MMS, video, J2ME, ringtones, DRM, Install Notify URI (used by billing system to check installation of downloadable applications)

- **Behavioral issues:**
    - How the cache system work: how it differentiate pages, from images, from other objects for instance
    - Supported charsets
    - Cookies management
    - Browser flexibility: for instance, supporting a content different from the advertised content type
- **Performance issues:**
    - Keep-alive
    - Http pipelining
    - Multi-part-MIME support
    - TCP options supported

Designing and running a distributed DDR

As explained in the different papers done by the DDWG, trust and quality of information are central questions in the DDR:

- Many different companies (handset manufacturers, content adaptors, user satisfaction groups, etc.) with different and sometimes even conflicting agendas, generate different types of information, with different quality levels.
- The UAProf solution defined by OMA has shown its limits:
    - No central depository of the device information
    - Incomplete, erroneous, or simply not even UAProf compliant information

That's why we believe that:

- **A central trust authority should be established, with a real certification program** based on a lab environment with a clear set of tests to run and results to gather:
    - This is very similar to what is currently done by the Wi-Fi alliance: http://www.wi-fi.org/ that has helped tremendously grows the Wireless industry.
    - This is partly similar in concept to the existing NVIOT initiative: http://www.nviot-forum.org/, mainly concerned with RF and low-level data testing.
- **Too complex trusts relationships might simply become a nightmare to manage**, and we should find an easy/basic way to provide more specialized repository providers a way to coordinate their information with this centralized authority (unambiguous device ID for instance).

2. BACKGROUND INFORMATION ON ZANDAN

Company Profile

Today, 20% of mobile multimedia commercial transactions never complete, and the costs of testing and monitoring mobile multimedia services are rising too fast for Mobile Telecom Operators and Service Providers. These services create new challenges to traditional service delivery and service management processes because of the complexity introduced by the proliferation of protocols, handsets and networks.

Zandan launched its Mobile Customer Experience Management (MCEM) initiative to help the mobile industry go back on track and profitably deliver on time mobile multimedia services providing the best possible customer experience.

Zandan's solution covers testing, validation, live monitoring, alerting, QoS management and benchmarking of all mobile multimedia services: WAP, i-Mode, SMS, MMS, Java, Video, Ringtones, Music, IVR, IM, etc. Based on a unique knowledge base of more than 1,000 mobile handsets, Zandan's solution is available as software through the M-Viewer™ "Business Suite", and as managed or fully outsourced services through DataSolution™.

Incorporated in May 2000, Zandan is headquartered in Paris, France. With 65 customers in 43 countries, Zandan is leading the market.

Mobile Entertainment Forum (MEF) QoS Initiative

Poor Quality of Service can damage customer loyalty and has a financial impact on the growth and continued usage of mobile multimedia services.

This initiative, led by Zandan and supported by **Freever, mBlox, motricity, Musiwave & Vodafone**, seeks to define best practices and to benchmark Quality of Service, with the ultimate goal of improving the customer experience.

> more info on the MEF web site: http://www.m-e-f.org/activities-initiatives.html#11

Products

HANDSET DATA

This database includes many information on devices capabilities in order to simulate their behaviour. Zandan's customers can choose the user-agents (handset + firmware) they want to use for their tests.

Breadth and depth of Handset Data:

- 60+ Manufacturers
- 1000+ Models
- 10000+ User Agents
- Live update every week

Contains information on:

- Browsing capabilities (WAP, i-mode, xHTML)
- Java capabilities
- Messaging capabilities (SMS, EMS, MMS)
- Music capabilities
- Supported content-types by technology
- Behavioral issues
- Performance issues
- Etc.

M-VIEWER

M-Viewer is a framework of test, monitoring, benchmarking and reporting software components provided by Zandan since 2001.

M-Viewer key benefits: Mobile customer experience management

- Verify interoperability between applications and every device on the market
- Control content quality from a customer perspective
- Provide supervision and performance management for mobile services

M-Viewer Business Suite

Complete multi-user, multi-location in-house platform for mobile telecom operators and content providers to:

- Test the activity of operators and their competitors
- Test end to end mobile services: from their request until reception
- Verify interoperability between any device and any application
- Cover all media, technologies and applications available in the mobile data services field

M-Viewer architecture: a combination of 5 components

M-Viewer Console(s)

Used to set-up the test protocols and do unit testing. Consoles can be deployed anywhere.

M-Viewer Provisioning Center (ZPC)

Centrally manage tasks scheduling, SIM cards mapping, and robots.

M-Viewer Robot(s)

The robots execute automatic measurements and automatically feed the Reporting Center (ZRC) with their results. Robots are usually connected with complete probes systems made of Zandan LSS 311, Zandan WMR 208 and Zandan AM 211.

M-Viewer Reporting Center (ZRC)

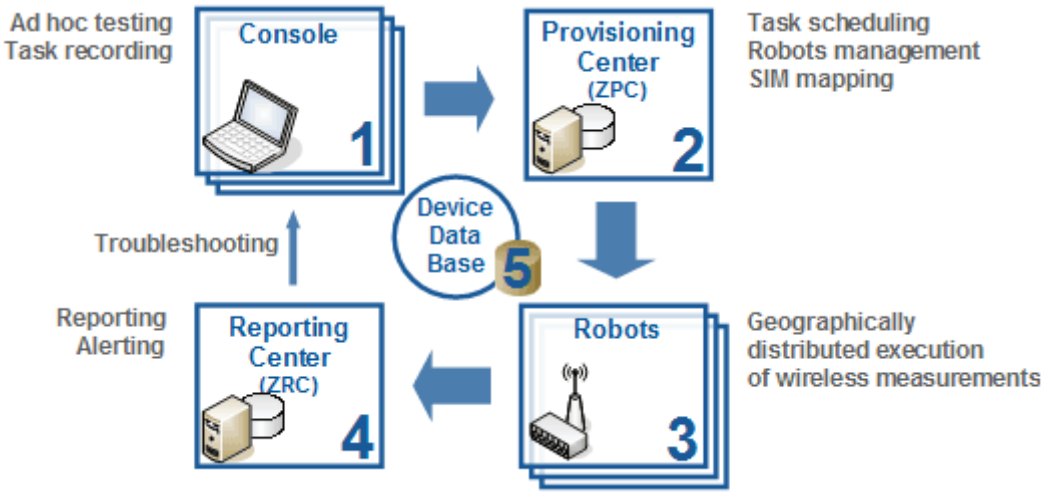
Based on Business Objects™ - provides users with customizable and secured reports:

- Report publication
- Report broadcasting

Device Database

The device database contains detailed information on 1,000+ handsets and 10,000+ user agents. This database is continuously updated via the Internet and is used by all other components.

How it works



Contact information

43 rue de Dunkerque – 75010 Paris, France

Phone: +3 1 55 77 01 00 – Fax: +33 1 55 77 01 01

www.zandan.com – bertrand.schmitt@zandan.com