The webinos initiative



Secure Web Operating System Application Delivery Environment. www.webinos.org Feb 2011

Overview

In brief

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Slides 1-23

- What webinos is about
- What webinos will enable
- Webinos use case families
- What webinos will deliver
- How webinos will intercept with existing platforms
- How webinos compliments industry activities
- How webinos will achieve its mission
- Where webinos is right now
- Who is driving webinos
- How to engage
- Follow us
- Backup

Slides 23-52

- The Web evolution and the Developer Dilemma
- The webinos Mission and Approach
- Work package details



Motivated by

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Today: apps are the new web. HTML is the lowest common denominator

Tomorrow: the web will become the new app* Web apps will come with device access and cloud access

- Webinos is an industry driven, technology research and development project with very clear deliverables.
 - It is focussed on the development of future internet.
 - It defines and delivers key enablers for the future Web Operating System to drive portability and secure use of web applications across platforms (mobile, fix, TV, automotive)
 - "Single service for every device" –







- W h a
- Webinos user stories to enable applications and services across domains



DEVICE FEATURE INTEGRATION

- Smart Device Integration
- Share GPS Receiver across Devices
- Input Method Dictionary Sharing across Devices and Platforms

DEVELOPMENT AND DEPLOYMENT

- Cross Domain App Store
- Creating Applications for webinos
- Converging Applications within and across Devices

SHARING

- Content Sharing Service
- Sharing Music within a Community Social Context
- Social Event Sharing

MEDIA CONSUMPTION AND CREATION

- Citizen-2-Governance
- Ordering a Video-on-Demand Film

CONTEXT AND EVENTS

- Context Sensitive Triggering

E-HEALTH

- Remote Monitoring of Chronic Disease through Access to Medical
- Sensor Data and Sharing of Medical Files

SECURITY AND PRIVACY

- Designing Policy-aware webinos Applications
- Usable Privacy Controls for webinos
- Implementing Government-mandated Privacy Controls
- Privacy Controls and Analytics for Corporations and Small
- Businesses

NAVIGATION

- The Holiday Planner
- Seamless Navigation
- E-LEARNING
 - Learning Assistance for Disabled Students 51
- HOME MEDIA AND INTERACTIVE TV
 - User Centric Video Playback

PROFILE MANAGEMENT

- Single Sign-On, Multiple Devices
- GAMING
 - Multiple Device Gaming



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- 1. VIRTUAL DEVICE
- 2. USER MANAGEMENT
- **3. APPLICATION EXECUTION ENVIRONMENT**
 - COMMUNICATION
- 5. APPLICATION LIFECYCLE MANAGEMENT
- 6. CONTENT ADAPTATION
- 7. CONTEXT AWARENESS
- 8. POLICIES

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- - Connections could be established via bluetooth, WLAN, GSM/UMTS, DLNA, UPnP,
 - webinos devices can interact which each other regardless of the respective owner

Provides access to device resources across

webinos enabled devices – physical & virtual

Provides access to connected sensors and

actuators to a users own or other device

- (preconditioned privacy/security policies will not be violated).
- Allows to clone/migrate existing profile settings from one webinos device to another (covering e.g. login credentials, settings and applications),



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User Profile Information's: A user is able to store static personal data in the webinos system (name, gender, address, etc.), which could be accessed by an application. Without the involvement of the user, also user preferences can be stored* – also accessible by an application (e.g. preferred devices for specific tasks). Support of Authentication & Authorization mechanisms (single-sign-on).

Account Management allows to manage multiple accounts in a single touch point – a prior registration to a service required (to use existing login credentials as e.g. for Facebook, Twitter, ...)



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- Push of applications, e.g. where the user installs a new application on his mobile phone, all other screens will automatically receive the same application.
 S = Pomoto installation of applications
 - Remote installation of applications
- An application is able to outsource code to another connected device (performance, display size or sensor type reasons)
 - Application Advertisements based on user preferences
- **a** · Background execution of Applications
 - Mechanism to extend webinos with proprietary APIs (for developers)



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Subscribe and publish events Context triggered uploading/synchronization of data (in case of network loss, connection quality, battery etc.) Detection of other webinos devices proximity Resume uploading of data Sharing app states across several users Allow a seamless application usage in case the user changes the device/screen. End session when out of proximity **Bi-directional communication in real-time** Synchronization of data between multiple devices

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- Different application discovery methods:
 - · Recommendation of new applications
 - Application advertisings within already installed applications, etc.
 - Execution of local available applications and applications which resides on a server or connected device.
- Installation and update of applications
- Reporting methods to allow a user to report a problem with an application to the responsible service provider
- Remote application removal



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- Automatic adaption of an applications' user interface to the used device, including adaptation to different input methods (keyboard & mouse, Touch, Remote Control)
 - Automatic selection of a pre-produced media type related to device capabilities (images, audio/video formats and sizes).





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- Support of contextual information based on:
 - Device Context
 - Event Based Context
 - Finding Devices in Close Physical Proximity
 - and Social Proximity
- Seamless Session Transfer between Devices (e.g. content distribution)
 - Publicity and privacy of Context Information
 - Obtaining Context Information through Sensors and Automated Data sources
 - Finding and using the context information of local and remote Devices
 - Discovering and Updating Context Information of a Shared Capability



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9th November 2010

Alerts.

settings

Devices

Receiving location based Messages and

Support of Platform and user centric Policy

Policy settings can be applied automatically

on all of users' webinos devices or defined

separately (private and business),

for each installed application

(private and business)

adjustable by the user.

Enforcing Multiple Policies on Multiple

Remote management of policy settings

Support of different policy modes -





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A web platform designed to allow apps to run across mobile, home media, PC and automotive comprising

- Terminal specifications
- Open source platform developments
- Proof of concept applications and demos
- Plus eco-system building in form of
 - workshops and seminars,
 - research publications and
 - liaisons with industry standards



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- W · Webinos is about Web-based development and execution
- e . It will not replace but sit on top of low-level operating systems
- Webinos is designed to be commercially and technically agnostic of underlying OS leasing to growth
- n The reference implementation shall be provided on at least 2 operating systems



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- W [·] Webinos will
 - Develop web extensions that allow applications to be delivered over the web paradigm and over multiple devices
 - Focuss on cross-platform compatibility and security
 - Complement WAC and W3C activities

	Swebinos	WAC	
	 Driven by a number of the same (DT, TIM, Telefonica, Samsung, Sony E Both are about support of web a 	parties ricsson, NTT Docomo) pplications	Interaction between webinos, WAC and W short term
Context	Research on long term web-app evolution & delivery of terminal platform	Commercial ecosystem in application delivery	webinos will use and build on existing W3C & WAC specs
Delivery timeline	3 years, with first results available after 1.5yres	Immediate – fully operational by Q1 2011	webinos deliveries can be fed back to and further
Domain	Handsets, home media, PC, automotive	Handsets	used by WAC and W3C medium term
Members	Led by Operators, manufacturers, software vendors, research institutes	Led by Operators	

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Key, concrete Deliverables

 § Use case definition / requirements
 § Landscape

analysis Concepts,

architecture and key enablers Open Source Platform specification &



September 2010 – August 2013

Swebinos



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• Today

- 22 founding partners from 9 countries who committed resources for 3 years to deliver webinos
- Academic + industrial
- Non-polarised
- Cross-domain

Tomorrow

 Open (source) community of academia, industrial and developers driving and using the developments



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- The 22 founding members have legally committed responsibilities, finances and resources for 3 years
- There is a strong intention to enable further parties to engage in webinos across the different work packages – use cases, requirements, platform and application building etc.
 - The legal entity for the Open Source Project is still to be established
 - To enable participation in the interim,
 - deliverables will be shared on the website for information and comments as applicable
 - dedicated discussion fora are enabled
 - webinars and expert discussion circles will be arranged
 - for more details, please see the back-up
 - If intestered, please
 - talk to webinos members
 - see the website for latest information
 - see the website for events where to meet webinos delegates
 - send an email to hello@webinos.org to be kept up to the



moblew PC/tablet, automotive, home media



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Website: http://webinos.org/

Public Discussion Forum:

http://webinos.org/forum/

Contact: hello@webinos.org

Newsletter:

http://webinos.org/webinos-newsletter



"webinos" group

twitter

#webinos_project

Next Venue: Mobilware 2011, London

MOBILWARE 2011

4th Int. ICST Conf. on Mobile Wireless Middleware, OSs, and Applications June 22-24, 2011 – London, UK Annual Theme: "Towards Mobile Middleware Enablers for Seamless Service Provisioning"



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Newsletter:

http://webinos.org/webinos-newsletter

Linked in "webinos" group

twitter

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Website: http://webinos.org/ **Contact:** hello@webinos.org

Next Venue: Mobilware 2011, London

MOBILWARE 2011

4th Int. ICST Conf. on Mobile Wireless Middleware, OSs, and Applications June 22-24, 2011 - London, UK Annual Theme: "Towards Mobile Middleware Enablers for Seamless Service Provisioning" C

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New: Public Discussion Forum: http://webinos.org/forum/

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Hot Tags	Latest Discussions			
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	Introduce Yourself!	2	Anna Kress	5 day
	Cross Domain App Store	1	andre.paul	6 da
	Different terminals as input and output sources	1	andre.paul	6 da
	Introduction - propose a category	1	Anna Kress	1 we
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Currently:

- Collaboration on requirements and specification of the webinos platform in form of proposed "user stories"
- "user stories" in the forum will be reviewed by consortium members

Next steps:

 Additional collaboration tools will follow according to the project working plan