The SyncML Road Ahead –

Application Development and Device Management

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Outline

• SyncML today
• SyncML as a key enabler in application development
• SyncML Device Management
Story Sofar…

• SyncML Initiative founded by key industry players with focus to develop an open technology for universal data synchronization
• Incorporation and a more flexible organization structure in 200
• Active contribution of Sponsor and Promoter members has focused on delivering
  – Specifications for data synchronization
  – Interoperability testing tools and events
  – Reference implementations
… And Deliverables

• 1.01 Specifications out in 2000, version 1.1 to be out in 1Q2002
• SyncML 1.01 specifications supported by key industry forums
• Commercial interoperable products exist: Over 21 servers, and 36 clients
• By end 2001, there were over 650 companies worldwide in the SyncML community
• This year, there will be millions of SyncML enabled devices in the market
Next Frontiers

• Application development
  – What comes after PIM?
  – Role of SyncML

• Device Management
  – A natural application area of SyncML technology
  – Enables direct and indirect benefits

• Further projects
SyncML Enabled Services

Internet
- Internet addressbook
- Internet calendar
- Internet mail, etc
- Images (MMS)

Intranet
- Company calendar
- Company databases
- Mail server
- Company files
- Own files (docs, backups)

Remote
- Calendar
- Contacts
- Docs, Files

Local

PC
Key Interaction Modes of the Applications in the Mobile Internet

- Browsing
  - WAP content
  - Internet content, ...
- Call
  - Voice and video calls, ...
- Messaging
  - Short messaging
  - Instant messaging
  - Chatting, ...
- Synchronization
  - Personal information management
  - Corporate applications, ...
Why Synchronization?

• Local databases and operations on them are coming commonplace
• Having your data always updated is (becoming) a competitive advantage
• Cooperation of networked parties/applications sets a direct demand for a seamless solution
• Handsets are not ”always on”
  – Constant connections are expensive
  – Network coverage is not universal
  – User experience can be unsatisfactory

Synchronization is a key enabler for interactive networked applications
Why SyncML?

• Open technology benefits all stakeholders
  – Application developers
  – Operators and service providers
  – Handset manufacturers
  – Customers

• Correct qualities
  – Robustness
  – Expandability
  – Transport independency
  – Security

• Wide enough industry backing
  – True interoperability
  – Sufficient device volumes
Further Development

• Reference implementations enable convenient kick-start of vertical applications

• Further cooperation with client and server manufacturers will enable advanced service concepts
  – New content types
  – Vertical applications with generic SyncML engines

• SyncML Initiative is a natural forum for discussion
  – Relevant parties participating
  – New content types in Objects group
  – Interoperability requirements in SIC
Device Management

- Networked devices' internal complexity will increase along with their increased functionality.
  - Example: WAP settings in a device
- The complexity can be alleviated by somebody remotely carrying out the difficult tasks on behalf of the end-user
- These remote actions are loosely called Device Management
A Typical Device Management Scenario

User requests configuration change.  

1. WWW server

2. Configuration tool
   - Web based user interface
   - Customer Care system

3. Alert/Trigger
   - Request for operation
   - Management Operation
   - Result of Management Operation

Management Server

A Typical Device Management Scenario

WWW server

Configuration tool
- Web based user interface
- Customer Care system

Management Server
- Alert/Trigger
- Request for operation
- Management Operation
- Result of Management Operation
SyncML Device Management

- The next application area of SyncML technology
- SyncML technology will enable remote
  - Parameter manipulation
  - Configuration
  - Content delivery
- SyncML takes into account market requirements for interoperability and security
User Scenario Examples

- New device or service purchase
- Advertising
- Helpdesk problem configuration
- Backup / Restore
- High volume configuration
Beneficiaries of SyncML Device Management

- Operators and service providers
  - Only one solution needed
  - Enhanced service level
  - Increased service uptake
  - Decreased customer care costs
- Corporations
  - Improved management of mobile devices
  - Enhanced mobile working efficiency
- Application developers
  - A standardized tool for application configuration and content delivery
- Handset manufacturers
  - Only one solution to be supported in the handsets
- Customers
  - More functioning devices, applications, and services
  - Enhanced customer experience

All parties benefit from an open solution.
Call for Action

• SyncML 1.1 specifications include SyncML Device Management, and are public in 1Q2002
• Start planning and implementing SyncML Device Management in your
  – Handsets, PDAs
  – Device management servers
  – Network infrastructure
  – Service offerings
  – Customer care interfaces
Summary

• SyncML is the protocol of choice for data synchronization
• SyncML serves as a key enabler in development of interactive networked applications
• Market demand for SyncML Device Management exists. You must start implementation ramp-up now in order not to miss the train.
For further information –

www.syncml.org