# Mobile Widgets: 2008

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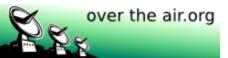




## **Widgets: Definition**



- Small, vector graphic, data-capable, handset-resident, persistent data applications (at least within the widget environment, which can be the idle screen of the phone)
- Client-server optional





## **Deep Integration or Just RSS Readers?**

- Presence
- Contacts
- Security?
- Malware?

**Deep Integration** 

**RSS-Enabled** 

### Widgets

Email Calendar Extranet

Non-Resident

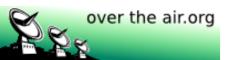
Personal/Enterprise Information



## Requirements



- Cache Memory
- Internet Access
- UI Support
- Maintenance—Versioning
  - Engine
  - Policy
  - Widget-based
  - Pull, not Push!



#### **Ecosystem Model**

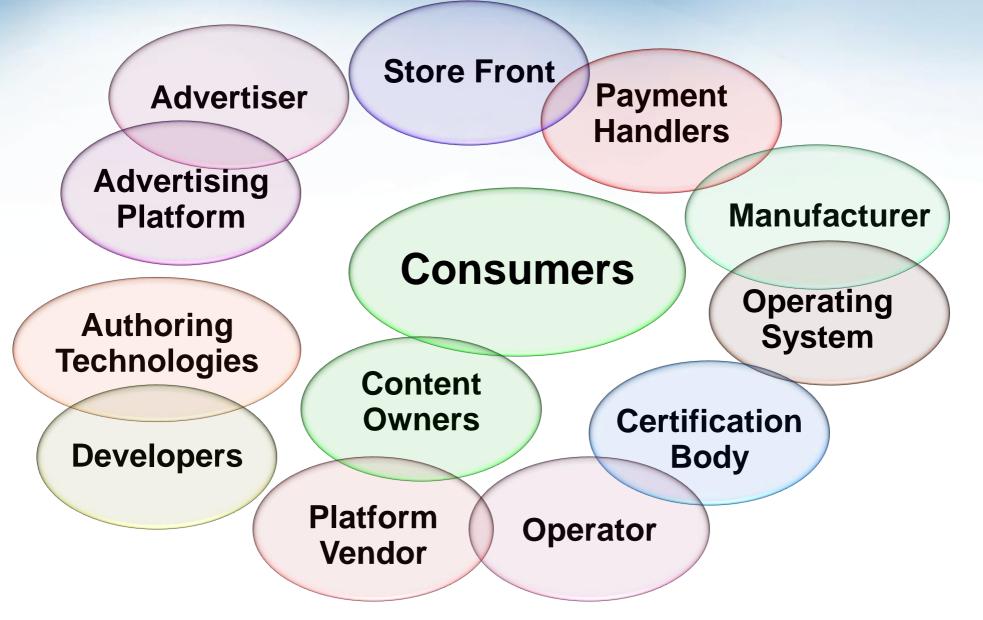


- Will Consumers Create Widgets? NO
- Should widgets be customizable? YES
- URLs: Too long to type in
- Widgets should be acquirable from the engine
- Widgets should be side-loadable



#### Widgets: Value Chain







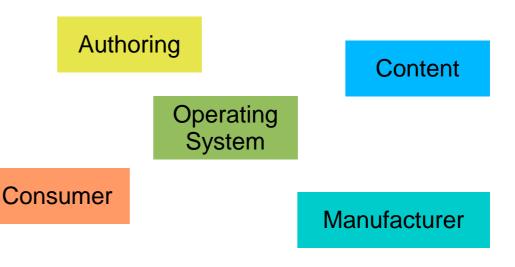
## **Operator-Oriented Value Chain**

## **Operator:**

- Store Front
- Brand
- Platform
- Ad Platform
- Certification
- Payments

## Pay to Play:

- Developer
- Advertiser







## **Data: Policy Required**



- No Consensus:
- Budgeted or Disposed When Inactive?
- Cost (Flat Rate?)?
- Battery Issues
- Network Impact



#### **Security vs. Trust**

Human Factors

- No guaranty
- OS-Enabled
- Device Integrity: No Crashing
- Network Integrity: No Malware
- No Disruptions
- No Central Authority? OMA?

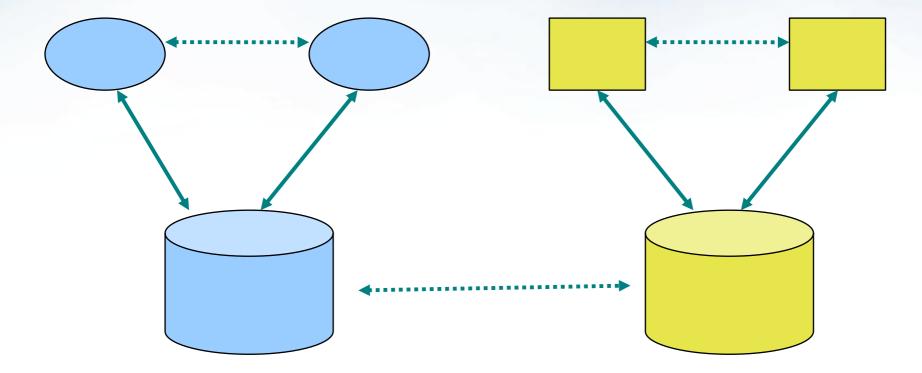
Security is a key differentiator in the competitive landscape.

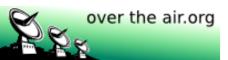
Security policies are needed by the market place.



## Interoperability

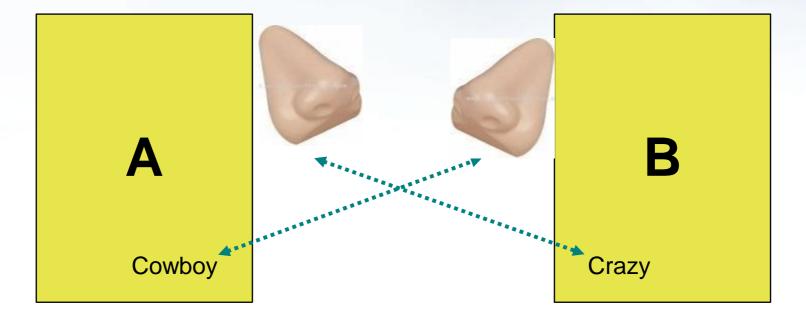






## **Shared Music Experience**







## Widget vs. Application



## Widget

- Single/Partial Screen
- More Client-Server
- Narrow Functionality
- Faster/Easier Access
- NotePad
- Notifier (Mailbox Flag)
- Alarm/Next Appointment
- Friend, etc. Finder

## Application

- Multi-Screen
- Stand-alone/ Client Server
- One at a Time/Full-Screen
- Rich Functionality
  - Word Processor
- Email or IM
- Calendar

Map

over the air.org

## Who Wins?



- Nokia
- Qualcomm
- Opera
- Openwave
  - Plusmo
  - W3C

Engine must support easy acquisition of new content!

Fears about interests: manufacturers don't want to buy from other manufacturers, and GSM operators fear further involvement with Qualcomm. Plusmo is an unknown where are their proven successes with security? And so it's Openwave and Opera that offer the best promise for widget frameworks. They are solid, secure companies with known interests.



# Thank you.

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