Delivering Services using an OSGi Gateway

Claes Nycander
Telia Research AB
Agenda

- Finding New Revenue Streams
  - A Telco Perspective
  - Delivering Services
- Creating Services
  - Telia’s Trial
- Starting the Connected Home
  - The plumbing
- Initial Customer Group
- Economics of the Networked Home
- Shaping the Future Market
Who are the Telco’s?

- Communication services are our core business
- High optimized OSS to enhance core business
- Desire reliability at same level as dial tone
- Do not sell CPE
- Prefer partners with track record
History

- 70’s Telco switch
  - Dependency on switch vender
  - Class services
  - 7 years time to market
- 80’s IN
  - Still proprietary solution
  - No third party innovation
  - Lack of security
  - Business structure slow to handle numerous small ops
- 90’s
  - Internet
  - UM
  - Services created outside the core network
Requirements

- Capture 3rd party innovation
  - Open service architecture
  - Not bound to core network / business
  - Security
The Connected Home = Service Delivery

- Traditional Service Delivery
  - Deliver one service at a time
  - ISDN is a different product than PSTN
  - Broadband is a different product than modem access
- Customer Centric Service Delivery
  - Service Provisioning
  - Service Management
  - Service Distribution
New Revenue Streams

- Customer Oriented Services
  - No change in customer behavior

- Meet the needs of Service Providers providing Home Services
  - Service Provisioning
  - Service Management
  - Service Distribution
Telia’s Trial

- Meeting the needs of services providers
- No new boxes
- Residential users, both MDU + Single Home
- Network:
  - IP based
  - Support for QoS and Multicast
Service Gateway: A Definition

- A network component that interconnects network domains (e.g. Home network and Internet)

- Enhances connectivity based services like voice, internet, multimedia communication

- Application Server for high value home services like energy management, security, health care monitoring, e-commerce
Residential Gateway as a Service Gateway

- Problems
  - Requires installation
  - Dial tone reliability, security … NOT
  - Bottleneck between home and access
  - Short technical life span
  - Trying to do 2 things in the same platform
Network Based Service Gateway

- Solutions
  - Requires no installation
  - Dial tone reliability, security
  - Not a bottleneck between home and access
  - Can have incremental upgrades
Starting the Connected Home

Physical Implementation
2 Phase Deployment

- IP Access Control System
  - IP address Pools (Public/Private)
  - Network Login
  - Dynamic Router Configuration

- Network Service Gateway
  - Session Initiation
  - Service Monitoring
  - = Service Usage
Service Gateway Plumbing

- Service Management
  - Life Cycle
  - DRM
- User Authentication
  - Single Sign On
  - User – Location – Terminal
- Service Metering
  - Usage based
- Service Discovery
Initial Customer Group

● Broadband Customers
  ● 65% Households have Internet (nua.com: summer 2002)
  ● 12% Broadband (PTS: 31 Mars 2002 540K households)
  ● ADSL fastest growing segment (Telia: 27 K – 194 K 2001)

● Network Providers
  ● Internet

● Service Providers for Home Services
  ● B2C
Economics of the Networked Home

● Network Services
  ● Technically feasible to run large number of services like TV, IP-tel, surf in same network
  ● New network services in a few days

● Home Services
  ● Incremental build
  ● Not an easy sell: Change in infrastructure
  ● Begin with cost cutting services. Continue with new revenue services
Home Networking: What’s Next?

- Plug and play Internet connectivity
- From vertical to horizontal solutions
- Push for home services must come from Service Providers for Home Services: not Network Operators