

Getting what you want from the Web without working for it



Dr. Manfred Hauswirth

TU Technical University of Vienna
Distributed Systems Group
<http://www.infosys.tuwien.ac.at/>



Overview



- What we have and what we want
- Opelix - the open e-Commerce platform
- Let push do the work
- Nothing is free - you gotta pay somebody
- Everyone uses XML - we too
- Conclusion - can you get what you want ?



Getting what you want from the Web without working for it

2

What we have



- Unskilled users: Internet = WWW + Email
- Quality of information found/retrieved proportional to knowledge/skills
- On-demand, user-initiated interaction
- Information passively waits for users
- Portals + E-Shops



Getting what you want from the Web without working for it

3

What the Customer wants



- Easily find goods/information
- Easily buy and receive goods/information
- Notification of news, changes, and updates
- "Turn on and get information" (TV, radio)
- Simple payment and delivery
- *Legal standards*
 - legally binding requests, offers, and contracts
 - consumer rights, refund, warranty, arbitration



Getting what you want from the Web without working for it

4

A Customer's Vision



- I specify the goods/information I want in a simple way
- I submit my request (ad hoc, profile) to some system - "I sit in my chair listening to music ... ☺"
- The system
 - finds feasible offers for me
 - negotiates according to my profile/request
 - pays and delivers goods/information to me
- My legal rights are protected
- My privacy and anonymity are protected



Getting what you want from the Web without working for it

5

What Vendors want



- Efficiently announce (advertise) products
- Support various business models
- Support for various business roles: producer, (value-adding) reseller, mediator, broker
- Flexible support for payment models (pay-per-use, time-based, flat fee, etc.)
- Support for super-distribution
- Legally binding contracts
- Marketing support



Getting what you want from the Web without working for it

6

Marketing Support

- Classify customers
 - Market segments
 - Virtual communities
- Target advertisements/new offers to customers according to their interests
- Increase customer loyalty

TU

Getting what you want from the Web without working for it

7

Opelix - The Project

Funded by the  European Union in the
 Information Society Technologies Program



TU

Getting what you want from the Web without working for it

8

Opelix - The Goal

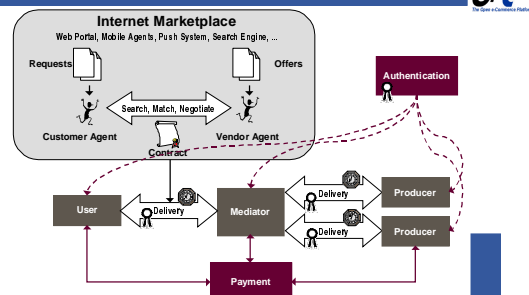
- Enable enterprises to produce, sell, deliver, and manage highly personalized contents and services over the Internet
 - Describe information offers and requests (BOL)
 - Find matches between offers and requests (+profiles)
 - Timely delivery (download, e-mail, push system)
 - Flexible and secure (micro-/macro-) payments
 - Authentication, non-repudiation, copyright
 - Mediation (super-distribution) and brokering
 - Flexible business models

TU

Getting what you want from the Web without working for it

9

Opelix Sample Scenario



TU

Getting what you want from the Web without working for it

10

Business Offer Language

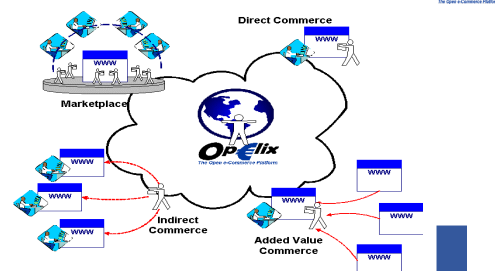
- XML-based language to describe offers, requests, and business models
 - Type of information
 - Business terms
 - Quality guarantees
 - Subscription/delivery facilities, authentication, etc.
 - "Transactions"
- Based on
 - Information and Content Exchange protocol (ICE)
 - Internet Open Trading Protocol (IOTP)

TU

Getting what you want from the Web without working for it

11

Opelix Business Models



TU

Getting what you want from the Web without working for it

12

Op€lix Direct Commerce
The Open e-Commerce Platform

- Sell an information product directly to customers (B2C) or other businesses (B2B)

Direct Commerce

- Define offer and announce it (web site, push, etc.)
- Matching mechanism may find interested customers to start negotiation
- After contract settled, manage payment and delivery

TU Getting what you want from the Web without working for it 13




Op€lix Indirect Commerce
The Open e-Commerce Platform

- Utilize web sites and/or push system to get in touch with possible customers

- Define offer
- Affiliate web sites set up areas where offer is announced (or push system)
- If the offer is changed these areas are updated automatically
- Requests are collected at the affiliate site and passed on to seller
- Negotiation, payment, and delivery follows

Indirect Commerce

TU Getting what you want from the Web without working for it 14



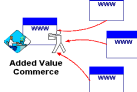
Op€lix Added Value Commerce
The Open e-Commerce Platform

- Sell higher-level information or services by using/combining other information sources

- Define new offer on the basis of other offers
- Announce new offer
- If customer buys, the mediator buys original information, and makes one delivery

Added Value Commerce

TU Getting what you want from the Web without working for it 15



Op€lix Marketplace
The Open e-Commerce Platform

- OPELIX supports the setup of marketplaces

- Products from a large number of sellers are available at a single site
- Provides a one-stop shopping destination for buyers
- allows buyers to bid competitively for products

Marketplace

TU Getting what you want from the Web without working for it 16



Op€lix Delivery
The Open e-Commerce Platform

- 3 delivery methods: download, email, push

- The **MINSTREL Push System**
 - (continuous) delivery
 - notification

Consumer

Subscribe

Receive

Unsubscribe


Push Infrastructure

Announce

Publish

Producer

TU Getting what you want from the Web without working for it 17



The MINSTREL Push System
The Open e-Commerce Platform

Broadcaster

BDC

BDC

BDC

Receiver

CA

MDL

E-Commerce (Payment)

Pay

Verify

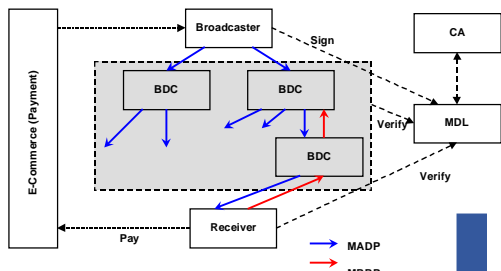
Verify

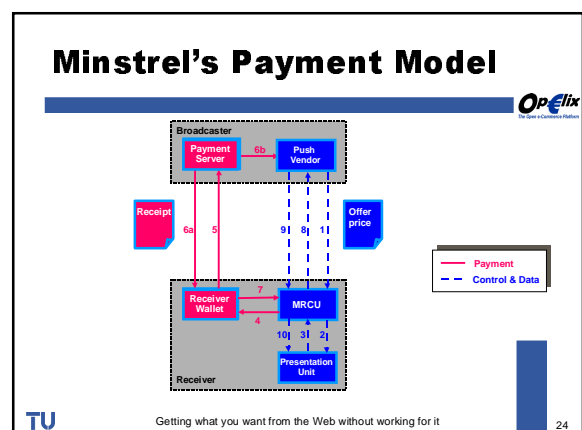
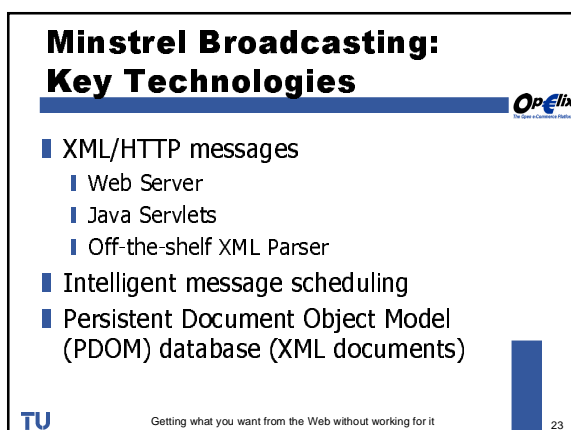
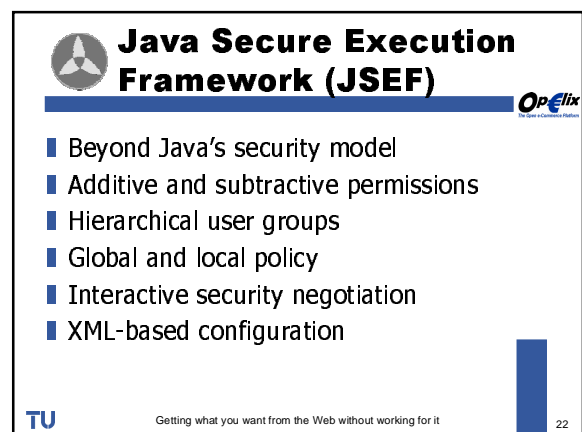
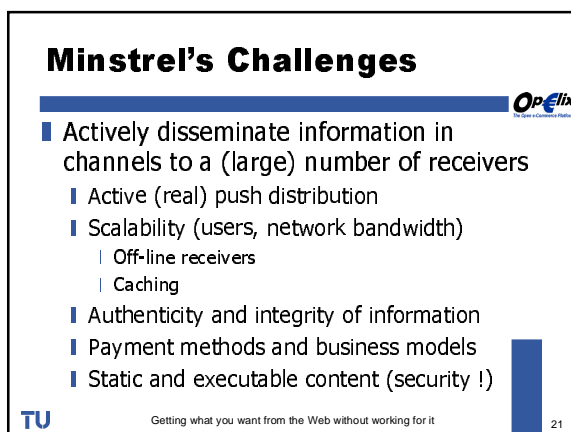
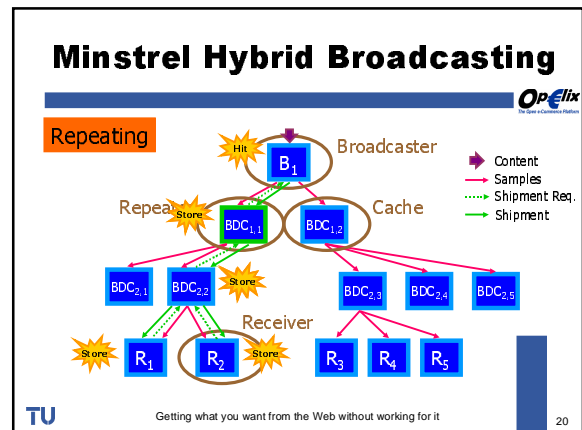
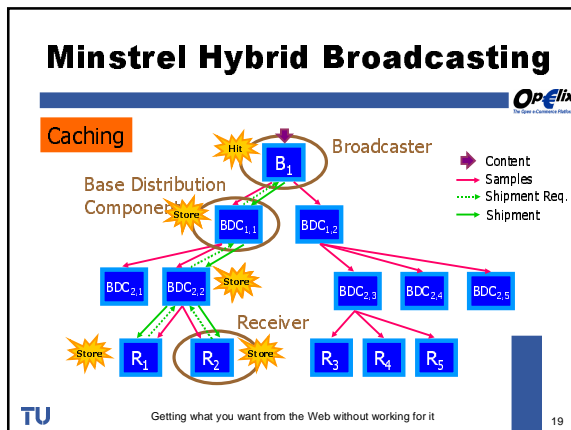
Verify

MADP

MRRP

TU Getting what you want from the Web without working for it 18





XML everywhere



- XML is Opelix's main underlying technology
 - Interoperability "standard"
 - | XML ~ ASN.1 / XDR => description of protocol data structures (Minstrel, BOL, ...)
 - Configuration (Opelix, Minstrel, JSEF, ...)
 - Content management system (web sites)
 - | logic-content-layout separation
 - | structured data => sophisticated search & retrieval
- Many tools exist



Getting what you want from the Web without working for it

25

Conclusion



You can't always get what you want, but ...

Opelix will make iCommerce simpler

- Standards (BOL, protocols)
- Infrastructure
 - | management
 - | payment
 - | delivery

... if you try some time, you may get what you need



Getting what you want from the Web without working for it

26

Further information



Opelix web site
The Open e-Commerce Platform

<http://www.opelix.org/>

or

M.Hauswirth@infosys.tuwien.ac.at



Getting what you want from the Web without working for it

27