



#### Improving Comarch's Telecommunications Software (OSS v4)

IPRO 349 -3.2 July 27<sup>th</sup>, 2007 Piotr Baranowski Adam Berg Manuel López Wojciech Szymanski



#### "700 million telephone lines were installed in the first 100 years of telecoms;

# 700 million more will be installed over the next 15-20 years."

- Ben Verwayen, Lucent Technologies, 1998



#### Agenda

- Introduction to
  - Telecommunications Industry
  - Operations Support Systems
- The Opportunity: our problem

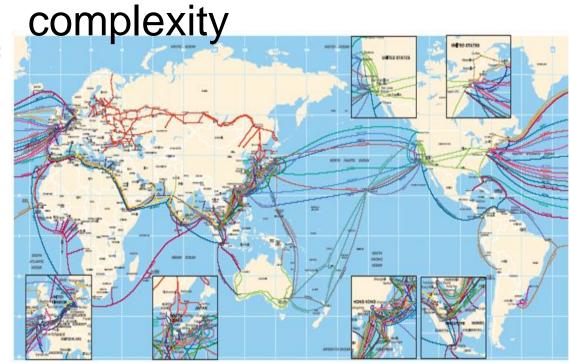
- What it means to Comarch
  - Project's goals
- Methods
- Findings
- Future



#### The Telecommunications (Telecom) Industry

- More than 2.7 billion mobile phone users
- More services + more customers =
- Annual revenue?
  \$1.2 trillion<sup>1</sup>

with a 5.9% annual growth<sup>2</sup>



Source: btnaccess.com



# How do Telcos manage that complexity?

- Operations Support System (OSS)
  - Manage and control networks
- How much are Telcos willing to pay?
   \$21.5 billion in 2006<sup>3</sup>
  - grows at 6.8% per year<sup>4</sup>
- Comarch's pie share: \$20 million, 0.001%



3. Gartner, 2006; 4. Gartner, 2006



# The Opportunity:

#### our problem, our project

- Telcos want a solution (OSS) that supports:
  - Adaptability,
  - Compatibility, and
  - Law Compliance
- 3 approaches to getting a greater share



paulnicklen.com

How to give them what they want?

and we found

We looked



#### What does this mean to Comarch?



- Adaptability- enhanced Telecommunications Map (eTOM)
  - Standard processes
  - Every Telco wants them
- Compatibility- Enterprise Service Bus (ESB)
  - \$114.8 million in 2005
  - Growth of 160.7%<sup>5</sup>
- Law Compliance- Sarbanes & Oxley Act (SOX)
  - \$6.1 billion spent in 2005 in the US<sup>6</sup>



#### **Our Project's Objective**

 Develop recommendations to approach the profitable market of Operations Support Systems in terms of:

Adaptability-eTOM

Compatibility-ESB

Law Compliance –SOX



#### Methodology

- Scan horizon
- Analyze



- Identify opportunities
- Recommend



#### Findings

#### Adaptability-eTOM





#### Law Compliance –SOX





#### Adaptability –eTOM

(enhanced Telecommunications Operations Map)

"eTOM has evolved into a de facto standard for telecom service delivery." (Forrester, 2007)

## Findings

 Improves Business Processes

### **Opportunities**

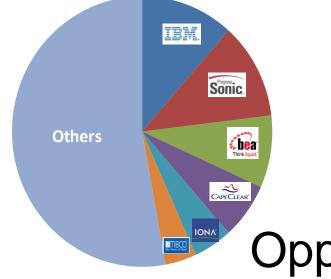
- Generic processes reduce costs of integration
- Comarch's OSS fully supports eTOM processes
- Access Key to Telcos





### **Compatibility -ESB**

#### Market Shares of ESB Providers



# Findings

- Integration tool
- Revenue of \$114.8 million
  - Grows at 160.7% per year<sup>7</sup>

## Opportunities

- New, small, and rapid growing
- Two approaches
  - Create an ESB
  - Use standards of other ESBs



#### Law Compliance –SOX in the US

"It's all about internal controls"



#### Findings

- Good news!
  - Comarch OSS supports it
- Biggest competitors offer consulting services
- More than just the technology

**Opportunities** 

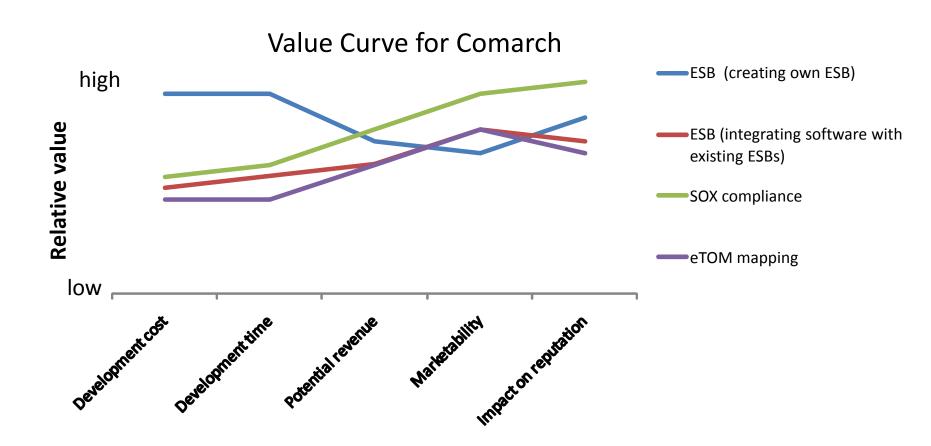
- SOX mindset globalizing
- Offer consulting services

In the US<sup>8</sup>:

- \$6.1 billion total spending\$1.9 billion in Technology
- \$1.8 billion in consulting



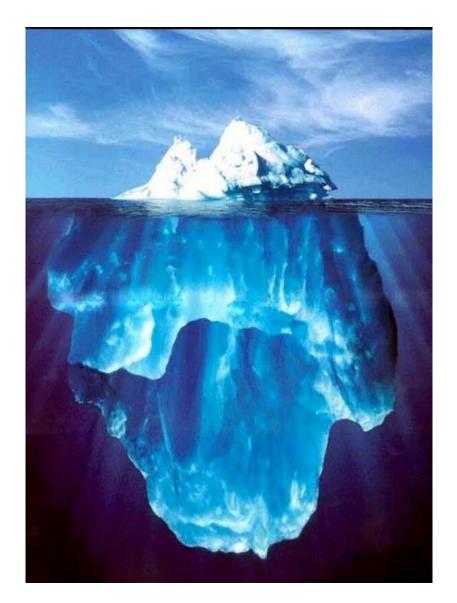






#### Future

- Market Comarch's OSS as SOX compliant and eTOM-ready.
- Take advantage of the sprouting of the ESB sector
- Offer consulting services in SOX in the world







# Thank you

# **Any questions?**