
Let's Build a Smarter Planet together

Be Smarter With Software

SW Day 2009, Vilnius - Markus Houben, IBM Software Group, CEE



Unprecedented amounts of new information are being generated— presenting **both a challenge and an opportunity** for organizations seeking insight



Internet-based communications

Ever-rising adoption of digital content

The businesses based on storing and sharing data

Increased use of electronic banking and finance

Digital records

Emails, photos, voice files, and videos

Data from sensors

Consumer-created content

In volume. 15 petabytes

Amount of new information being generated every day, 8x more than the information in all U.S. libraries.

200 billion

More than 200 billion emails are sent every day.

988 exabytes

Amount of digital information that will exist in 2010—equivalent to a stack of books from the sun to Pluto and back.

\$5.7 million

For every 1,000 knowledge workers it employs, a company loses \$5.7 million annually in time wasted reformatting information between applications.

In variety. 80%

New data growth that is unstructured content, generated largely by email, with increasing contribution by documents, images, video and audio.

Information is exploding:

but less and less of the information available is being applied effectively

Organizations must improve their ability to turn that information—especially information generated in real time—into insight to optimize performance.

1 in 3

Business leaders frequently make major decisions with incomplete information or information they don't trust.

1 in 2

Business leaders don't have sufficient information from across their organizations to do their jobs.

3 in 5

Organizations don't share critical information with partners and suppliers for mutual benefit.

We now have the ability to measure, sense and monitor the condition of almost everything

30 billion

By 2010, 30 billion **RFID** tags will be embedded into our world and across entire ecosystems.

1 billion

By 2010, there will be more than 1 billion **camera phones** in existence.

85%

Nearly 85% of new **automobiles** will contain event data recorders by 2010.



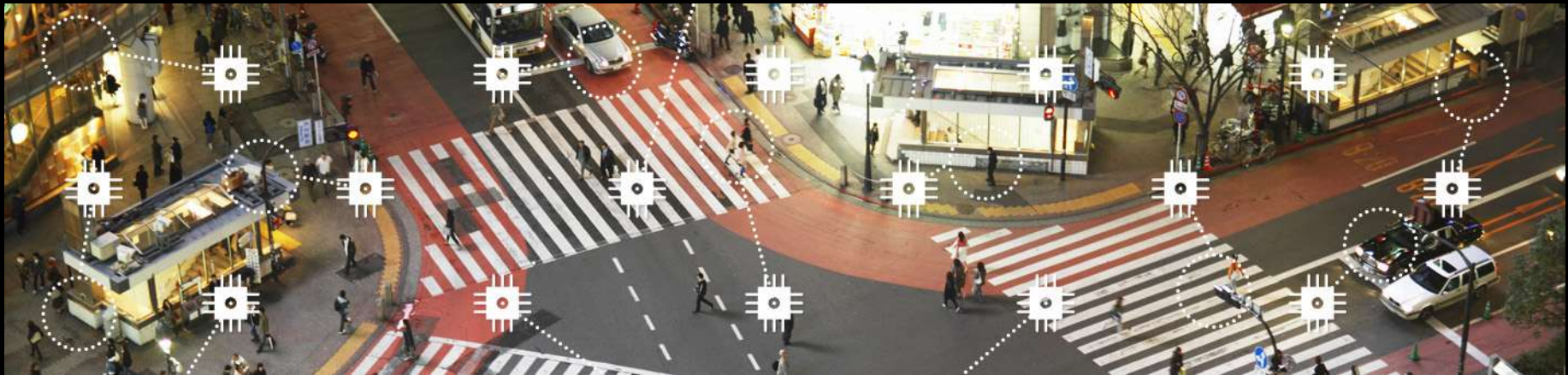
Instrumented



Interconnected



Intelligent



People, systems and objects can communicate and interact with each other in entirely new ways

2 billion

Internet Users

There will be an estimated 2 billion people on the internet by 2011.

4 billion

Mobile Phones

There are an estimated 4 billion mobile phone subscribers worldwide.

1 trillion

Connected Devices

Soon, there will be 1 trillion connected devices in the world, constituting an "internet of things."



Instrumented



Interconnected



Intelligent



The new leadership requirements:

Collaboration

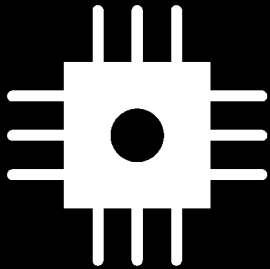
Standards

Openness and innovation

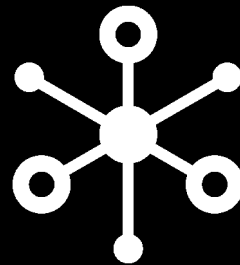
These three elements are key to your long-term strategy and road-map to success.

Issue: Limited Resources

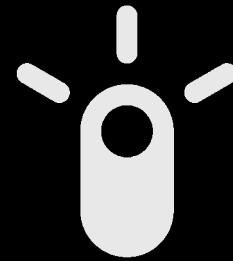
Smarter Solutions for a Smarter Planet



Instrumented



Interconnected



Intelligent

SMART TRAFFIC

Intelligent congestion / road charging systems imposing a graduated toll, makes it obvious when traffic will be the worst, so drivers who trek in during peak hours know they'll pay more for what will probably be a maddening experience. As a result, people seem to be cutting out unnecessary trips. Reducing traffic isn't about building more roads, it's about providing better information and choices.

ROAD USER CHARGING

ELECTRONIC FARE MANAGEMENT

TRANSPORTATION INFORMATION MANAGEMENT

SMART UTILITIES

Seeing real-time usage data on the electric meters, along with options for cheaper times of day will encourage us to stop hogging peak kilowatts. The power supplier will be likely to overbuild highly polluting power plants.

SMART GRID

WATER MANAGEMENT

INTELLIGENT BUILDINGS



SMART HEALTH CARE

Keeping all patient records online and link them with clinical applications allow you to analyze and better understand patterns and trends among patients with similar symptoms or illnesses, to help determine how to better serve their patient community.

HEALTH INFORMATION EXCHANGES

CONSUMER PORTALS

DISEASE SURVEILLANCE

SMART LAW ENFORCEMENT

Business intelligence software along with mapping and visualization tools, officers and analysts in the center can detect crime patterns as they are forming, enabling precinct commanders to take proactive measures to keep ahead of these trends. Crime Information Solution, the system collects data from calls to the police, crime reports and other sources, and lets police cross-check them in a variety of ways that previously have been difficult to accomplish.

SMART SURVEILLANCE SYSTEMS & REAL TIME CRIME PREVENTION
CRIME DATA AGGREGATION
EMERGENCY MANAGEMENT INTEGRATION



SMART RETAIL

Building a bridge between store cash registers and the retailer's data warehouse allow you to see improved accuracy of sales records giving you a greater visibility into customer buying habits, helping them improve overall business performance.

SMART DATA / IT CENTERS

Software solutions with intelligent and automated workload management automatically allocate workloads in real time to higher- and lower-performing systems, as well as all necessary resources such as storage, to ensure that business goals are met while impressive cost reductions and performance increase can be achieved.

WORKLOAD BALANCING
COST REDUCTIONS
PERFORMANCE INCREASE

SMART WORK

Collaboration and productivity: employees leverage real time communication and collaboration and social software (Web 2) to tap into the passion and expertise of colleagues/partners/clients/suppliers, and their digital breadcrumbs.

PRODUCTIVITY INCREASE
EMPLOYEE SATISFACTION
REALTIME COMMUNICATION





Smarter Financial Services: 90% of FS executives believe the returns of the past are over, and will be more sustainable.

Collecting data in a single format, storing them in a database and perform analytics on them at rest is a method of the yesterday. Smart financial institutions are turning to a new business intelligence approach that can make sense of data in any format, in any volume, in real time.

GET REAL-TIME BUSINESS INSIGHT

Using anonymized data and advanced mathematics to harness the shared experiences of financial institutions and improve risk quantification. Having the right mix of pattern detection and preventive measures to proactively deal with financial crimes and fraud.

STREAMLINE OPERATIONS and CONSOLIDATE COMPUTING RESOURCES

To achieve faster time to market with new offerings and lower IT costs. To reduce manual touch points — cutting processing errors and required remediation

PROVIDE CONSUMER EXPERIENCE TO TECH-SAVY CLIENTS

Achieving growth and deeper penetration of new markets through seamless self-service experience.

Large US Retail Bank: Identified potential to reduce fraud by \$18 million on an annual basis. By sampling a statistically significant subset of 56,000 records out of a 3 million card base, a bank improved on its initial fraud detection and was able to shut down additional fraudulent accounts.



**SHIFTING FROM REACTION TO REAL-TIME
RESPONSE AND PREDICTION**

in business

&

in public services

DRIVES OUR SOFTWARE STRATEGY

Micromuse / Netcool (USD 862 million) 2006

Netcool helps manage IT network for banks, teleco carriers, governments and retailers.

Filenet (USD 1.61 billion) 2006

Filenet helps companies simplify business processes

Datamirror (USD 161 million) 2007

IBM Information Server allows customers to better exploit operational data by capturing and delivering real time information.

Telelogic (USD 750 million) 2008

Model, build and test complex systems such as aircraft radar and ABS.

Cognos (USD 4.9 billion) 2008




Cognos infuses intelligence into the business. BI is one of the fastest growing segment on the SW market.

ILOG (USD 340 million) 2009

ILOG helps customers improve their management of business decisions through powerful tools related to rules, optimization and visualization.

SPSS (1.2 billion USD) 2009

Predictive analytic capabilities that can help customers predict future events and proactively act upon that insight to drive better business outcomes.



Thank you for your attention



A globe with a wireframe grid and a cracked, textured surface, symbolizing global software acquisitions.

Software Acquisitions



IBM Solutions Portfolio for Cities

Public Safety

- Crime information warehouse
- Emergency response
- Digital surveillance

Intelligent Transportation

- Road user charging
- Fare management
- Transport info management

Government Services

- Citizen-centered design
- Integrated service delivery
- Permits and licenses
- Land registries

Energy & Utilities

- Smart grid
- Building efficiency assessments
- Water management

Telecommunications

- Broadband expansion

Healthcare

- E-medical records
- Home health services
- Payment systems

Education

- Smarter Classroom
- Smart Administration
- Innovation in Research

Government Accountability – Results orientation and Openness

Analytics

- Assessing overall health of the community vs. national indicators
- Establish goals and priorities

Municipal Dashboards

- Measuring progress against goals
- Identifying improvement areas