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Digital Enterprise 2020
ICT Vendors & Providers Strategies - IBM
IBM Software Group (SWG) Series
IBM Smarter Planet, Software 2.0 and the IBM Software Group

A strategic "Company Profile" report by Bernard Dubs, BIT Group and Susan Eustis, WGR

Update March 2010

LEXINGTON, Massachusetts (March 22, 2010) – WinterGreen Research (WGR) and its European Partner Business & Information Technology (BIT) Group announce the release March 2010 of a new IBM strategic study, dealing with the IBM Smarter Planet vision, as well as with the strategies, portfolios and execution capabilities of the IBM Software Group brands.

This study is a 6-part study totaling 102 pages and 73 tables and figures.

Part 1/6: IBM Smarter Planet, Software 2.0 and IBM Software Group brands
16 pages, 8 tables & Figures

In line with the "Cycle Theory", mediated on the economics side by Kondratieff and Schumpeter, BIT Group – WGR Inc. and IBM share the same vision for the future, i.e. that we are on the verge of a new Technology Innovation Cycle that will induce a new long term Kondratieff "prosperity" cycle ca 2017-2018 to the mid-century.

IBM calls it the Smarter Planet paradigm. BIT Group names the emerging Technology Cycle: "Intelligent Digital World", in reference to the one we are living in: Digital World 1 that got started ca 1970 with Arpanet and the Micro-Processor soon joined by GSM (mobile) technology.

This "Intelligent Digital World Cycle" should see the fusion of the Digital World 1 (modular organizations, collaboration-led people interactions) with the Physical World of Objects made intelligent (Smart Things), communicating via the "Future Internet", i.e. the IPv6, SOA-architected and software-enabled Internet.

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This in turn will generate an important productivity jump via Smart Grids in Electricity or zero-energy homes and buildings for instance, enabling the start of the aforementioned new prosperity cycle.

In this momentum, software is key both for innovation and change. However, as states Gary Booch, IBM Fellow, "90% of the software we need for this new era is yet to be written". This raises the strategic question about effective Software Delivery, from design and development to operations in a Service-Oriented (SO) Architected Information System.

To match the above vision and strategy, the IBM Software Group, under the leadership of Steve Mills, has been re-shaped from a middleware-centric entity to a more software-centric entity whose mission is to enable enterprises to conceive Smart Products, drive Change and allow Innovation-based Differentiation.

Parts 2 to 6 of this study detail the vision, strategies and execution capabilities of the IBM Software Group key brands, leveraging information provided during their annual conferences.

Part 2/6: WebSphere and SOA Smart Work

18 pages, 9 figures

On the enterprise structure front, because markets saturation forced the industrialized world economies to move to a replacement economy in the late 1970s, organizations had to move to more agile and cellular structures so as to serve a moving-target client in an open world.

As modularity becomes part of the organizations' DNA, the Information System has to mirror this trend and this is the business legitimacy of Service Oriented Architecture (SOA).

IBM is a premier provider of SOA, Cloud Computing and Enterprise Services Oriented Architecture: It is the market leader with 70% share in the first three quarters of 2009. SOA drives business imperatives that permit the achievement of flexible IT systems. Line of Business managers cannot function efficiently if they are locked into static IT business process. They are dependent on the existing automated process to achieve business efficiency, but they need to be able to change that to achieve appropriate response to competitive situations. SOA provides that technology.

Ease of use remains a significant issue for SOA implementations. Governance and the constraints that accompany good governance get in the way of rapid IT change. Small companies that grow using Microsoft.NET programming constructs have difficulty implementing sophisticated governance process when the need arises. Likewise, enterprise legacy systems that are mired in governance, cannot easily build new applications rapidly.

Impact of SOA on IT is in this context. SOA is a Web services initiative for rapid application development, accessing code that already runs the enterprise. Instead of rebuilding that code, or copying it and reusing it in that manner, SOA permits access to information located anywhere using a SOA API.

From a sourcing perspective, Cloud may be seen as the Next Generation Outsourcing, the first one which will not be “people based” only but will contain a sizeable part of automation. Thus, at Impact 2009, IBM presented and demoed the WebSphere CloudBurst Appliance.

Part 3/6: IBM Rational – Telelogic, Smart Products & the Innovation Agenda
22 pages, 25 tables & figures

In line with the “Software 2.0” vision aforesaid, IBM says “Software is becoming the “invisible thread” at the center of the world transformation towards a smarter, more productive planet. Intelligent software and systems lie at the heart of IBM’s Smarter Planet agenda. What we are seeing this year are clients at a crossroads. They view software as the key to differentiation yet they still struggle as how to improve project outcomes.

This defines our unique market. IBM Rational - Telelogic is helping its clients redefine their software and systems delivery processes and make the incremental, staged improvements that will give them the insight to align initiatives with business strategy and improve the business value of those projects. Collectively, IBM Rational - Telelogic helps its clients (1) Produce, consume and manage smarter products; (2) Optimize desired business outcomes from their investments in software; (3) Free-up resources that can be re-invested in innovation”.

Part 4/6: Information Management – The Information Agenda - IOD**14 pages, 5 tables & figures**

Transforming software-generated data and information into knowledge for smarter decisions in “real time” is the ambition of the Information Management Business Unit of the Software Group of IBM Corporation.

IBM has an Information Agenda. Customer resources are scarce. Costs are high. Information is siloed. Competitive pressures reduce the time to react. IOD laid out an information strategy designed to permit customers to retain a competitive advantage. The information agenda approach accelerates organizational ability to share and deliver trusted information across all applications and processes.

IBM offers:

- Independent foundational information tools
- Tools for aligning IT and business goals through
- Enterprise information roadmaps
- Industry specific expertise
- Assets that can be used for rapid time to value
- Ways for centralizing best practices
- Establish competency centers

IBM used IOD 2009 for getting customers started on an information transformation journey. The Information Agenda aims at introducing the concepts of industry specific automated processes that lead to rapid systems implementation. IBM presented its information agenda approach in the context of reference accounts that provide a proven track record. The information agenda is positioned to provide granular variety of customized tools used by companies of various sizes and in various industries.

Information On Demand systems are used to respond and adapt quickly to unpredictable, up-to-the minute changes in information. Information may be on a global level, or in the next cube over.

Part 5/6: IBM Lotus 'Empowering people' – The Collaboration Agenda**16 pages, 11 tables & figures**

IBM Lotus 2010 strategy is articulated around three key words: Collaboration Agenda, Cloud and IBM Future Collaboration Vision, sometimes called 'LotusNext'.

Lotus is in charge of the Collaboration Agenda, defined as an industry-specific approach to realize measurable value from improving the way people interact. IBM Collaboration Agenda aims to improve responsiveness of teams especially when the members are located remotely.

On the cloud front, IBM has made several enhancements to IBM LotusLive, including an easier access to LotusLive Notes and a promised increased openness to partners (2H 2010) who will be able to get APIs to propose add-on services without being obliged to be part of the Lotus Design Partner program.

IBM is a premier provider of cloud computing and desktop collaboration tools: The Smarter Planet initiative seeks to bring automated process to ordinary tasks, creating ways to leverage sensors for all aspects of business implementation. With its smarter planet initiative, IBM is bringing intelligence to a vast array of what were previously manual tasks. IBM has positioned as an infrastructure provider.

Lotus is seeking to define a platform operating in the cloud where services are available in real time, on demand. Industries targeted include healthcare, education, oil and gas, buildings, transportation, public safety, and government.

The IBM Future Collaboration Vision includes several projects from IBM LotusLive Labs: among these, IBM Project Vulcan is said to be "the IBM future collaboration vision", according to Alistair Rennie, the new IBM Lotus General Manager.

Even if it was not in the 3 conference keywords, "User Experience" has got its share of improvements (Sametime, Quickr, Connections, Symphony) as winning the ergonomics or comfort battle is strategic for making the end user 'happy' and therefore being its Partner of choice. Mobility has also been under the spotlights with a series of announcements regarding Apple, Google, Nokia and RIM terminals.

IBM has also developed solutions specific to the Small & Medium-sized Enterprises (Lotus Foundations).

Part 6/6: IBM Tivoli – Enabling Innovation

16 pages, 15 tables & figures

Pulse 2010, the IBM Tivoli annual conference, was still much in the shadow of economic downturn and success stories presented were in the most crisis-resistant sectors such as energy and government.

Aside from the conference core quite normally dedicated to Service Management, and its evolution Integrated Service Management, IBM has taken the opportunity of a 5,500 professionals gathering to give a better visibility to its Smarter Planet concept and Cloud strategy evolution.

Smarter Planet – Tivoli Service Management outside the traditional IT environment
The IBM Smarter Planet concept, developed in the part 1 of the IBM Software Group Series, predicts that the next technology cycle that should take over the current one started in ca. 1970 with the microprocessor and Arpanet, will be empowered by the meeting of the “physical” (Smart Objects) and the “digital” world we are experiencing now with our interconnected systems and people collaboration.

The concept is then adapted for different industries such as Smart Grids for electricity, Smart City or Smart Building, Smart Healthcare, Smart Banking and so on.

IBM wants to bring its Service Management expertise outside the Data Center and IT field by going to the “physical world” and proposing to monitor and manage the Smart environments.

At Pulse 2010, IBM with some of its Senior Executives on stage, tempted to demo the concept through a live show about Las Vegas and the Venetian Palace as a smarter city and building respectively.

A more traditional slides based presentation detailed the Smart Grid for Electricity services provided by IBM, to some extent also to illustrate the guest keynote by Al Gore who delivered a sustainability message on behalf of mankind.

Integrated Service Management

The opportunity to integrate operational assets with hardware, software and services is being leveraged by IBM as it offers improved service management. Integration is the motto. IBM wants its customers moved to the next step, which it calls "Integrated Service Management", another aspect of the on-going battle against the silos. Products and services are offered for (1) Data Centers; (2) Software Design and Delivery (Tivoli and Rational bridging); (3) Specific industries: banking, Chemicals & Petroleum; Energy & utilities; Healthcare

Cloud

On the cloud front, IBM has made several enhancements to systems management, providing easier access to virtualized systems by those authorized to have access, and greater security to protect the systems from unwanted intrusion. Federation is key to integrate the internal private cloud (virtualized data center) with external private, community clouds or the public cloud. IBM Tivoli proposes the Federated Image Library for this new software layer associated with the evolution to the cloud.

Companies Mentioned

Market Leaders

IBM

IBM Rational – Telelogic

IBM Ilog

IBM Lotus

IBM Tivoli

IBM Filenet

IBM Cognos

Microsoft

Oracle

SAP

CHECK OUT THESE KEY TOPICS

IBM SMARTER PLANET, SOFTWARE 2.0 & THE IBM SOFTWARE GROUP

CONTENTS and KEYWORDS

Part 1: IBM Smarter Planet

Economics cycles: Kondratieff, Schumpeter, Kitchin, Juglar – Digital Enterprise 2020 – IBM Smarter Planet: Instrumented, Interconnected, Intelligent - Software 2.0: SOA, SaaS, Green IT, Security, Cloud, Semantic Web

Part 2: IBM WebSphere and SOA

IBM Impact 2009 – Smart Work – Dynamic process – IBM ILOG business rules – IBM BPM Blueworks – WebSphere sMASH – WebSphere CloudBurst Appliance – IBM Modernization Services – Social Media - Lombardi

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Part 3: IBM Rational

RSC 2009 – Telelogic – Jazz – Innovation Agenda – Rational Insight – Rational Focal Point – Rational MCIF (Measured Capability Improvement Framework) – TeamConcert 2.0 – Requirements Composer 2.0 – System Architect 11.3 – Portfolio Manager 7 – ClearCase 7 – Build Forge 7 – Rational in the Cloud and Rational for the Cloud

Part 4: IBM Information Management

IOD 2009 – Governance – MDM – Cognos 8 – InfoSphere, InfoSphere Data Architect, InfoSphere MDM, InfoSphere Master Information Hub, InfoSphere Tracability Server, Streamed Data

Part 5: IBM Lotus

Lotusphere 2010 – Collaboration Agenda – User Experience (Mobility, Sametime, Quickr, Connections, Symphony) – IBM Appliances, Lotus Foundations – Cloud, LotusLive – LotusNext, Project Vulcan, Project Concord, LotusLive Labs

Part 6: IBM Tivoli

Pulse 2010 – System management – Smart Grid Services – Power Generation Assets – Mobile Assets & Workforce – Substations T&D Assets – Smart Meters at customer site – Service Delivery Chain – IBM Tivoli Smart Grid positioning – Cloud & Systems management – Tivoli enabled innovation – RFID tags – Smarter Services: Healthcare, Traffic, Telecom, Banking

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IBM SWG Company Profile Update March 2010**REPORT METHODOLOGY**

This is the 439th report in a series of market research reports that provide forecasts in communications, telecommunications, the internet, computer, software, telephone equipment, health equipment, and energy. The project leaders take direct responsibility for writing and preparing each report. They have significant experience preparing industry studies. Forecasts are based on primary research and proprietary data bases.

Forecasts reflect analysis of the market trends in the segment and related segments. Unit and dollar shipments are analyzed through consideration of dollar volume of each market participant in the segment. Installed base analysis and unit analysis is based on interviews and an information search. Market share analysis includes conversations with key customers of products, industry segment leaders, marketing directors, distributors, leading market participants, opinion leaders, and companies seeking to develop measurable market share. Over 200 in depth interviews are conducted for each report with a broad range of key participants and industry leaders in the market segment.

WinterGreen Research is able to establish accurate market forecasts based on economic and market conditions as a base. Use input/output ratios, flow charts, and other economic methods to quantify data. Use in-house analysts who meet stringent quality standards. Interviewing key industry participants, experts and end-users is a central part of the study. Our research includes access to large proprietary databases. Literature search includes analysis of trade publications, government reports, and corporate literature.

Findings and conclusions of this report are based on information gathered from industry sources, including manufacturers, distributors, partners, opinion leaders, and users. Interview data was combined with information gathered through an extensive review of internet and printed sources such as trade publications, trade associations, company literature, and online databases. The projections contained in this report are checked from top down and bottom up analysis to be sure there is congruence from that perspective.

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The primary contacts combined with understanding of the key market drivers and their impact from a historical and analytical perspective. The analytical methodologies used to generate the market estimates are based on penetration analyses, similar market analyses, and delta calculations to supplement independent and dependent variable analysis. All analyses are displaying selected descriptions of products and services.

YOU MUST HAVE THIS STUDY

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ABOUT THE AUTHORS AND COMPANIES

Susan Eustis

Co-founder and President of Wintergreen Research, **Susan** has always done research in communications as well as in computer markets and applications. She holds several patents in micro-computing and parallel processing as well as the electronic voting machines original patents.

Her domains of interest include Service Oriented Architecture (SOA) marketing strategies, Internet software, content management, web hosting, web services and application integration / application servers markets, Biometrics, Telecommunications, Digital Loop Carrier, Business Process Management, Servers, Blades, the Mainframe as a Green and Cloud Computing Machine, and worldwide energy markets especially in the solar energy field (author of recent studies on solar utility, solar technology and thin film battery markets).

Susan is a graduate of Barnard College, Columbia University.

About WinterGreen Research

WinterGreenResearch is an independent research organization and provides market assessments in telecommunications, Internet and advanced computer technology as well as in key verticals such as Healthcare and Energy. WGR has been founded in 1985 and is headquartered in Boston, Ma (USA).

Bernard Dubs

Bernard is the Founder, CEO and Research Director of the Business & Information Technology (BIT) Group, a leading independent enterprise transformation, innovation management and ICT strategies Analyst & Expert firm headquartered in Paris, France with global coverage through partnerships in the UK and the USA. He has authored the strategic vision of the economic models and organizations evolution, C-enterprise 2020: From the Industrial Enterprise to the Innovation-driven, ICT-powered, Cellular Enterprise in the Digital Economy and Knowledge Society of the 21st Century.

Bernard has more than 25 years of "Business & IT" professional experience in Europe and the USA in such Global Groups as National Semiconductor USA, BASF Germany and Shell Europe, as well as in the strategy advisory firm, Meta Group.

Bernard is often quoted in the press, both Business and IT, and a sought-after keynote speaker at European or World events. For instance, he has been awarded a visionary keynote 'Enterprise 2020' and the SOA roundtable moderation at CeBIT Hanover in March 2008, and he has co-authored the report 'Software 2.0' (June 2009) for the European Commissioners. He also is an Advisor for France 2025, the French Government prospective exercise.

With a dual engineering and finance education, Bernard is a Graduate (MS) and VIP of the University of California at Berkeley.

About BIT Group

The Business & Information Technology (BIT) Group is an Analyst and Expert firm in Economic Intelligence, Enterprise Transformation and ICT strategies. Its mission is to **accompany** Executive Committees of Euro Global 2000 Groups and public Administrations in their on-going transformation actions leveraging ICTs and new models associated to the Digital "2.0" Enterprise, as well as to **facilitate** all « Business & IT » dialogs.

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