

#### Systems & Technology Group

Government Industry
Growing Systems Share in Government . . . the Largest IT Market





## **Presentation Update**

To obtain the most current version this presentation, please go to the following internet site where the latest version is hosted.

http://w3-

1.ibm.com/sales/systems/portal/\_s.155/254?navID=f220s240&geoID=All&prodID=IBM%20eServer%20And%20TotalStorage%20Products&docID=industrysellingsk.skit&docType=SalesKit&skCat=DocumentType



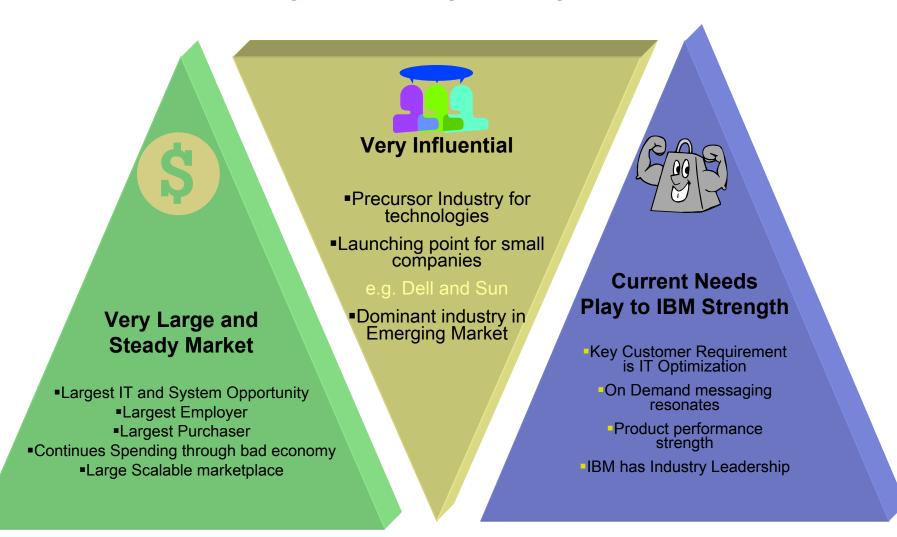
## Agenda

- Issues and Opportunities for Government
- STG Government Priorities for 2005
  - Solutions
  - On Demand Infrastructure for Government
  - Competitive Play
- Routes To Market Priority
  - Systems Integrators
- Contacts and Resources
- Call to Action





## Government - Why a Priority for Systems Sales





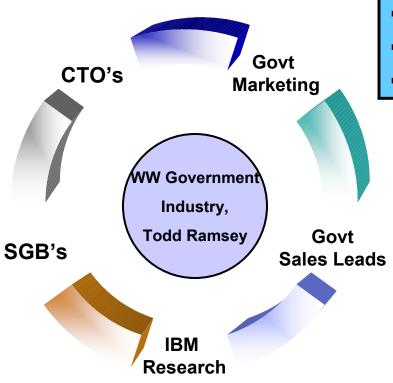
### STG will drive additional focus on Government

#### CTO's

- Don Grice
- Bruce Hillsberg

#### SGB's

- Linux
- Grid
- Deep Computing
- Business Intelligence



#### **Government Marketing**

- Steve LaFleche, WW
- Maria Jenny
- Jeff Lester
- Don Perry

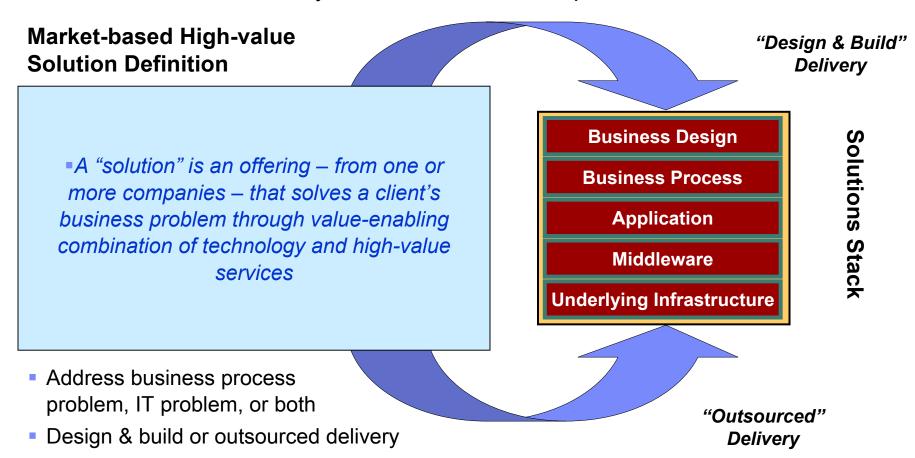
#### **Government Sales**

- Michelle Rudnicki, WW
- Americas
- EMEA
- AP



## STG's alignment around industries

 IBM's strategic intent is to understand and help shape the market for high-value IT solutions — as delivered by IBM and other service providers.



Source: IBM Solutions Definitions and Solution Offering Taxonomy, March 22, 2004

Single integrated purchase or multiple related purchases



## Challenges facing Modern Governments

## Budget Pressures

- Economic slowdown or low growth rates
- Revenue shortfalls

#### Human Resources

- Training required for new application areas
- Professional development for culture change
- Staffing challenges created by retirements

## Increased Collaboration

- Required by new safety/security issues
- Necessary to improve service delivery

#### Safety, Privacy, Security

- Balancing demands for safety and privacy
- Funding required for new security initiatives

#### Citizen & Business Expectations

- Government must be more responsive
- Growing preference for web-based services

## Challenges to Society

 Healthcare costs, Aging population, Education, Digital Inclusion

## Economic Growth

Sustain the Economic Growth

## Critical Imperatives

Meet Financial Challenges

Enable Government Employees

Transform
Government
Services



## **Government Solutions**

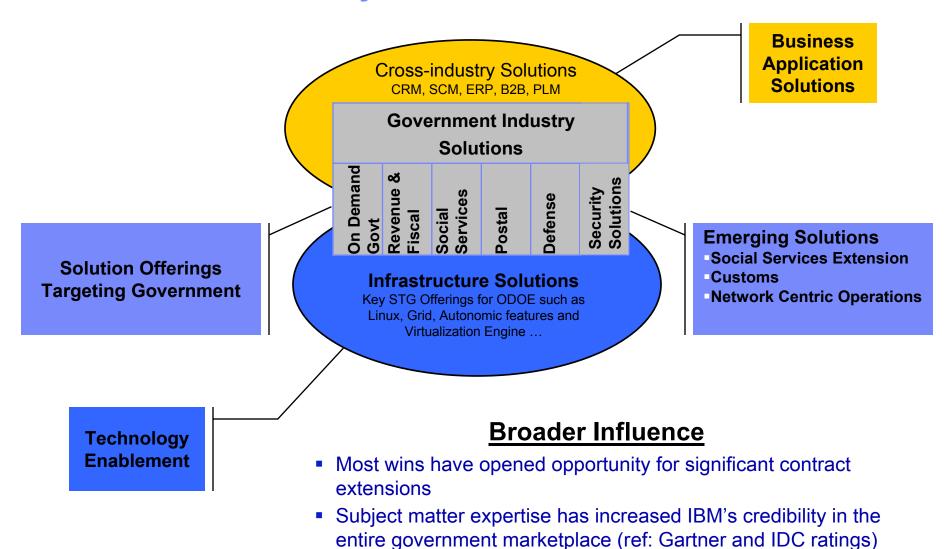
- Issues and Opportunities for Government
- STG Government Priorities for 2005



- Solutions
- On Demand Infrastructure for Government
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## **Government Industry Solutions**





## Transforming Government to On Demand

On Demand Government PG10

IBM's On Demand Government provides solutions that enable improved delivery of services for citizens & businesses, internal productivity and collaboration between all governments

#### Solution Value

For government leaders who require a reliable relationship in delivering innovative solutions, IBM has the industry expertise, global experience and end to end portfolio of offerings to design and implement reliable, scalable solutions to help governments transform cross agency and inter-government processes visa a safe and secure infrastructure.

#### **Business Benefits**

- Improved physical and IT security
- Expense reductions associated with improved services
- Improved access to information anytime, anywhere

#### **IBM Systems Value Proposition**

The infrastructure foundation for technology solutions with outstanding reliability, scalability and security features



### **Government Transformation**

On Demand Government PG10

Component Layer	On Demand Govt Portal	Motor Vehicle Solutions	On Demand Transformation Framework
Consulting	Revenue Management, SW Product selection, Business re-engineering	Revenue Management, Business re-engineering	e-Government Strategy Skills
Services delivery skills	Business rqmts analysis, Content management & Search solutions, UI development	Business and Requirements analysis, Security, Transaction management	Enterprise Architecture; Bus. Process Re-engineering; Portal; Business Intelligence; Integration Middleware
Applications – ISV or IBM (SAP, Lotus, etc)	Custom Content Manager, Crystal Reports	Custom Content Manager, IBM Payment Manager	IBM: Risk Management; Lotus collaboration; Content Manager (preferred) ISV: Business Objects, Vignette, Interwoven
Web Server SW	WebSphere	WebSphere	WebSphere
Database or Content manager	DB2 (preferred)	DB2 (preferred)	DB2 (preferred), Oracle
Systems management & Security	Tivoli Policy Director, SecureWay Directory, Access Manager, Secure Gateway	Tivoli Policy Director, SecureWay Directory, Access Manager, Secure Gateway	Tivoli
Operating systems	AIX (preferred), Windows	AIX (preferred), Windows	zOS, AIX, Linux, Windows
Platform	pSeries(preferred), xSeries, Storage	pSeries(preferred), xSeries, Storage	xSeries, pSeries, zSeries, Storage



## Revenue and Fiscal Management

Revenue and Fiscal PG20

IBM's eRevenue Framework provides enhanced efficiencies in revenue collection rates, reduced fraud and abuse, innovative image data capture and improved expenditure management controls by providing contact touch points, core systems, collections and administrative operations

#### **Solution Value**

For Revenue and Fiscal Management agency executives who must address increasingly complex tax, customs and treasury management challenges driven by policy, security and public accountability in an era of expense pressure, IBM delivers eRevenue Framework

#### **Business Benefits**

- Transition from focus on internal processing to "on line" constituent services
- Reduction in fraud and abuse to improve voluntary compliance
- Adoption of commercial best practices

#### IBM eServer and TotalStorage Value Proposition

IBM's Systems Group commitment to innovation gives the assurance that as technology advances, IBM will be among the first to help as a trusted partner, to help support infrastructure needs, with scalability, performance, security and integration.



## Revenue & Fiscal Management

Revenue and Fiscal PG20

Component Layer	Intelligent Forms Processing	Tax e-Services	Tax & Audit Compliance
Consulting	Revenue Management Strategy skills	Revenue Management Strategy skills	Revenue Management & Tax Compliance Strategy skills
Services delivery skills	IBM BCS or ITS: and Forms & Workflow Design specialists as required	IBM BCS: Enterprise Architecture & Database Integration and Web Services specialists as required	IBM BCS: Business Intelligence, Case Management and Web Services specialists as required
Applications – ISV or IBM (SAP, Lotus, etc)	IDM IEDO	ISV: Siebel, Kana, Group 1, SAP	IBM: Entity Profiling Management System
	IBM: IFPS		ISV: Crystal Reports, Vality, Blaze, Rational, ERwin,
Web Server SW	Not applicable	WebSphere	WebSphere
Database or Content manager	IBM DB2 (preferred)	IBM DB2 (preferred)	IBM DB2 (preferred)
Systems management & Security	Tivoli	Tivoli	Tivoli
Operating systems	Windows or AIX	Intel, AIX, zOS	Intel, AIX, zOS
Platform	xSeries or pSeries, Storage	xSeries, pSeries, zSeries, Storage	xSeries, pSeries, zSeries, Storage



## **Revenue & Fiscal Management**

Revenue and Fiscal PG20

Component Layer	Finance Enterprise Applications	Performance Management and Analytics	Finance Strategy; Financial Operations improvement
Consulting	Government Fiscal and Financial Management Strategy skills	Government Fiscal and Financial Management Strategy skills	Government Fiscal and Financial Management Strategy skills
Services delivery skills	BCS: ERP Integration Services and Business Intelligence skills as required	BCS: Financial Planning and Business Intelligence skills as required	Not applicable
Applications – ISV or IBM (SAP, Lotus, etc)	ISV: JD Edwards, Lawson, BAAN, SAP, PeopleSoft, Oracle & AMS	ISV: Cognos, Business Objects	Not applicable
Web Server SW	Not applicable	Not applicable	Not applicable
Database or Content manager	IBM DB2 (preferred)	IBM DB2 (preferred)	Not applicable
Systems management & Security	Tivoli	Tivoli	Not applicable
Operating systems	Intel, AIX, zOS	Intel, AIX, zOS	Not applicable
Platform	xSeries, pSeries, zSeries, Storage	xSeries, pSeries, zSeries, Storage	Not applicable



## **Social Services**

Social Services
PG30

The IBM Social Services and Social Security Solutions enable customers to manage their cases more effectively improve their service to their customers, implement services on the web, identify fraud and abuse and implement efficient management information systems

#### **Solution Value**

For Social Services agency heads who need to control spiraling costs of services, control fraud and deliver more customer responsive services, IBM delivers thought leadership consulting, selected ISV solutions and infrastructure that enables on demand services as well as integration of disparate applications

#### **Business Benefits**

- Modernization of organizations
- Improved customer services
- Integrated case management across programs, departments and service providers

#### IBM eServer and TotalStorage Value Proposition

IBM eServers and TotalStorage offer a breadth of reliable, secure and scalable systems that help meet the IT infrastructure needs of new service delivery models.



## **Social Security and Social Services**

Social Services
PG30

Component Layer	Integrated Case Management	Decision Support	Child Protective Risk Assessment
Consulting	Social Services & Social Security Strategy skills	Social Services & Social Security Strategy skills	Social Services & Social Security Strategy and EPMS skills
Services delivery skills	ICMS delivery skills supported by product specialists as required	Business Intelligence skills, and product specialists as required	Business Intelligence skills, and product specialists as required
Applications – ISV or IBM (SAP, Lotus, etc)	Cúram Software, Seibel, SAP	Based on client environment	QLinx, EPMS
Web Server SW	Websphere (preferred) WebLogic	Based on client environment	n/a
Database or Content manager	DB2 (preferred), Oracle, SQLServer	DB2 (preferred), all others supported	DB2 (preferred), Oracle, SQLServer
Systems management & Security	Based on client environment	Based on client environment	Based on client environment
Operating systems	Intel, AIX, zOS	Intel, AIX, zOS	Intel
Platform	xSeries, pSeries, zSeries, Storage	xSeries, pSeries, zSeries, storage	xSeries, Storage

#### **Postal Solutions**

Postal PG40

IBM's Postal Solutions offers alternatives to traditional letter products to improve revenue streams, new and improved consumer access channels, and improved operational efficiency and data collection

#### Solution Value

For Postal Executives who are under increasing competitive pressure and deregulation in many counties, IBM delivers enhanced customer service methods, improved delivery scheduling, and value added services

#### **Business Benefits**

- Address mission critical requirements such as generating new revenue and reducing costs
- Improved quality of service
- Offer diversity in selection of services

#### IBM eServer and TotalStorage Value Proposition

IBM eServers and TotalStorage provide the foundation for an open system architecture with a breadth of platforms and a portfolio of solutions that allows you to build and deploy on legacy and/or open system architectures.



## **Postal Solutions**

Postal PG40

Component Layer	Logistics Management	Multi-Channel Post Office & Messaging	Mail Information
Consulting	Global Postal Solutions and BCS Supply Chain Management Skills (SCM)	Global Postal Solutions and BCS CRM Skills	Global Postal Solutions and BCS Strategy and Change Management Skills (S&C)
Services delivery skills	Package Integration ISV, as required	Package Integration and ISV, as required	Package Integration, ISV and BP, as required
Applications – ISV or IBM (SAP, Lotus, etc)	Manugistics, Chronopost	Escher, ErgoIDP,PostX	FirstLogic
Web Server SW	WebSphere (preferred)	WebSphere (preferred)	WebSphere (preferred)
Database or Content manager	DB2 (preferred), Oracle,	DB2 (preferred), Oracle	DB2 (preferred), Oracle,
Systems management & Security	Tivoli preferred, but can adapt to client environment	Tivoli preferred, but can adapt to client environment	Tivoli preferred, but can adapt to client environment
Operating systems	Intel, AIX	Intel, AIX, zOS	Intel, AIX,zOS
Platform	xSeries, pSeries, zSeries, storage	xSeries, pSeries, zSeries, storage	xSeries, pSeries, zSeries, storage



#### **Defense Solutions**

Defense PG50

IBM's Defense Solutions offer commercially off the shelf solutions that address logistics, interoperability, security and collaboration issues

#### Solution Value

For Defense Agency Leaders who need to enhance operational readiness, improve Interoperability and have access to superior information and decision support systems via COTS based solutions, IBM solutions enable defense organizations to improve and standardize businesses, improve operations through better resource management, enable tactical and strategic decision making across large groups of users and improved coordination of multinational forces.

#### **Business Benefits**

- Enhanced operational readiness
- Improved capabilities for a highly mobile and deployable armed forces
- Increased interoperability among other services, allies and other government forces

#### IBM eServer and TotalStorage Value Proposition

IBM eServers and TotalStorage are reliable systems that lay foundations for logistics solutions that enable more effective and efficient use of resources



## **Defense Solutions**

Defense PG50

Component Layer	ERP/Logistics	Network Centric Warfare	Collaboration
Consulting	S&C, SCM, FM, HCM consulting skills	BCS – S&C, SCM R&D, IT Architecting	BCS – S&C, ITS
Services delivery skills	BCS - SAP, Oracle, PeopleSoft implementation plus mega program management.	BCS, ITS, SWG (WBI, Lotus, Tivoli)	BCS, Lotus products
Applications – ISV or IBM (SAP, Lotus, etc)	SAP, Oracle, PeopleSoft	SAP, Oracle, PeopleSoft IBM Data Links (DLPS)	Lotus, full suite, including SameTime and Portals
Web Server SW	WBI (incl. MQ) whole suite	WBI, Incl. wireless	WBI
Database or Content manager	All, DB2 preferred	All, client preference	All, client preference
Systems management & Security	Client environment based, Tivoli preferred	Client environment based, Tivoli preferred	Based on client environment
Operating systems	All, including Linux	All, including Linux	All, including Linux
Platform	All, OS2 plus RS6K more the norm.	All, including wireless	All, including wireless



## Safety and Security Solutions

Safety and Security PG60

Safety/Security solutions provide agency executives with collaborative and coordination solutions, advanced "homeland security" applications, and IT security, privacy, and business continuity services.

#### Solution Value

For agency executives concerned with overall safety/security plans or with IT security, IBM offers a broad suite of solutions that include collaboration and coordination, both within a government agency and between agencies and private sector entities, systems integrator to develop and implement advanced "homeland security" applications

#### **Business Benefits**

- Ensure protection of vital information
- Increased safety for constituents
- Improved management of key ports of entry

#### IBM eServer and TotalStorage Value Proposition

IBM Systems are foundational solutions that deliver rapid sense and respond to abrupt security developments. Additionally, the integrated, open design of eServer and TotalStorage systems helps to enhance the collaboration and sharing of information between systems and departments.



## **Safety and Security Solutions**

Safety and Security PG60

Component Layer	Customs Enterprise Architecture	Customs Risk Management System (PoC)	Port & Supply Chain Security
Consulting	Customs Agency Strategy skills	Customs, Ports, Maritime & Supply Chain Strategy skills	Customs, Ports, Maritime & Supply Chain (SCM) Strategy skills
Services delivery skills	IBM BCS: Enterprise Architecture & Database Integration and Web Services specialists as required	IBM BCS: Business Intelligence Case Management and Database Integration specialists as required	IBM BCS & ITS: Security & Privacy Services, Enterprise Architecture Integration, Wireless and Web Services specialists as required
Applications – ISV or IBM (SAP, Lotus, etc)	IBM: Lotus ISV: SAP	IBM: Web Fountain, Entity Profiling Management System ISV: Crystal Reports	ISV: SAP, Crimson Logic, SAVI
Web Server SW	WebSphere	Not applicable	WebSphere
Database or Content manager	IBM DB2 (preferred)	IBM DB2 (preferred)	IBM DB2 (preferred)
Systems management & Security	Tivoli	Tivoli	Tivoli
Operating systems	Intel, AIX, zOS	Intel	Intel, AIX, zOS
Platform	xSeries, pSeries, zSeries, Storage	xSeries, Storage	xSeries, pSeries, zSeries, Storage



## Three BCS-led Growth Leadership Business Solution Plays

#### **Growth Leadership Government Business Solution Areas**

## Social Services and Social Security

The provision of effective social benefits compliant with policies, respectful of tax payers, challenges to recipients and privacy.



- Market in excess of \$4.6B growing at 6%
- Focus on outcome management and compliance

Dramatic shifts in a fragmented market where IBM has the largest share today provide unique opportunities.

## Customs, Ports and Border Management

The safe, secure and efficient facilitation of trade, transport and travel across borders



 Significant market, expected to grow by 10%/yr to \$3.2B by 2008

This segment has global, cross industry significance across IBM Brands.

#### **Defense / NCO**

A high level, joint and integrated use of information technology to enable effective, adaptive and mobile operational capability



 A market of nearly \$2.0B/yr will continue a steady expansion

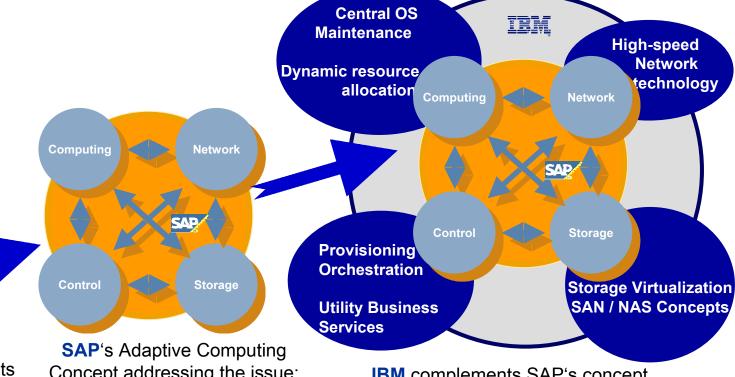
IBM enterprise integration and service oriented architecture capabilities are key IBM offering components



# Key ISV's will contribute 24% of Government Systems revenue in 2005



## IBM Dynamic Infrastructure complements SAP's Adaptive Computing Concept



Business Issues /
Customer Pain Points

- Ineffective operation
- High administration costs
- Limited responsiveness

Concept addressing the issue:

"Be able to start any service
on any server at any time"

This level is implemented by most of our competitors (Intel focused)

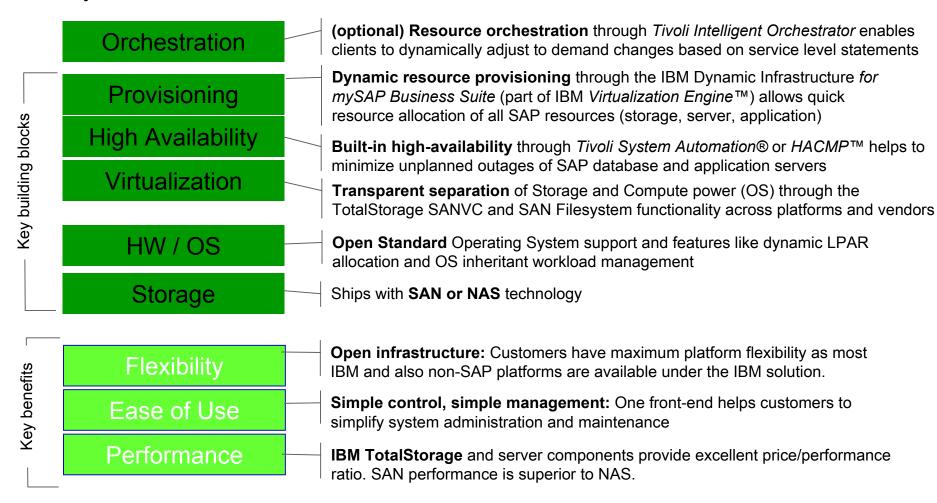
IBM complements SAP's concept through technology Solutions, delivering more customer value

(IBM: Linux on Intel, UNIX, Mainframe)



## IBM Dynamic Infrastructure Components and Customer Benefits

#### IBM Dynamic Infrastructure

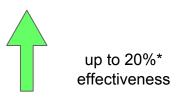




## IBM Dynamic Infrastructure Enterprise Edition for mySAP™ Business Suite compliments the SAP Adaptive Computing Approach and helps to optimize IT and SAP operations

#### MORE EFFECTIVE Operations

- Simple provisioning process for all resources
- Effective management of capacities across system boundaries
- Maximum investment protection as existing hardware can be integrated



#### LOWER Administration Costs

- Open OS (Linux) across platforms reduces administration efforts
- Automation of typical admin processes cuts down on manual interaction
- Metering enables full cost transparency



#### MORE Responsiveness

- Dynamic allocation of new resources within a few minutes
- New system landscapes can be set up in minutes not hours
- High performance through dedicated SAN infrastructure
- Includes high-availability and automated fail-over processes



<sup>\*</sup> Assuming an average system utilitization of 20%, IBM Dynamic Infrastructure can deliver up to 40% system utilization when combining complementary workloads (e.g. batch and dialog workloads)



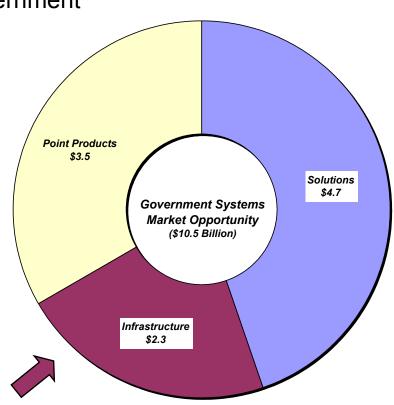
## Information for IBM Dynamic Infrastructure Enterprise Edition for mySAP™ Business Suite

- Contacts for Additional Information
  - Frank Fischer Global SAP Offerings Manager
    - (Frank Fischer1/Germany/IBM@IBMDE)
  - Klaus Scholten Program Manager mySAP Technologies on IBM eServer
    - (Klaus Scholten/Germany/IBM@IBMDE)
  - Suzanne Battenfeld On Demand Marketing, Virtualization Solutions
    - (Suzanne Battenfeld/Poughkeepsie/IBM@IBMUS)



### On Demand Infrastructure for Government

- Issues and Opportunities for Government
- STG Government Priorities for 2005
  - Solutions
- - On Demand Infrastructure for Government
  - Competitive Play
  - Routes To Market Priority
    - Systems Integrators
  - Contacts and Resources
  - Call to Action

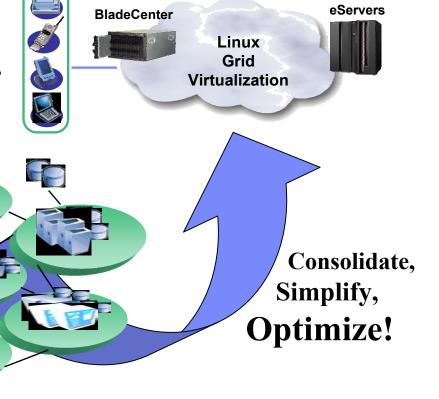




## **Infrastructure Optimization**

## Typical Government CIO Concerns

- •Reduce costs
- Maintain or improve service
- Position for growth and responsiveness



Storage



## Optimize IT Environment – Customer Investment Scenarios

A "scenario" describes an area of customer investment within the scope of Business Flexibility, toward which IBM is targeting offerings.

#### **Government Area**

#### **Systems Offering**

- Fuel growth by managing costs through better utilization of IT assets
- **■**eGovernment Transformation
- On Demand Government Workplace
- **E-Forms/ Records Management Solution**
- IBM Virtualization Engine:
- IBM TotalStorage Productivity Center
- IBM TotalStorage SAN Volume Controller

- Improve flexibility to increase/decrease IT capacity and reconfigure applications and systems as business needs change
- Government Access Solution
- Capacity Upgrade on Demand (z, p & iSeries)
- Supercomputing ODE centers
- ■TotalStorage Prod Center
- **SAN Volume Controller**

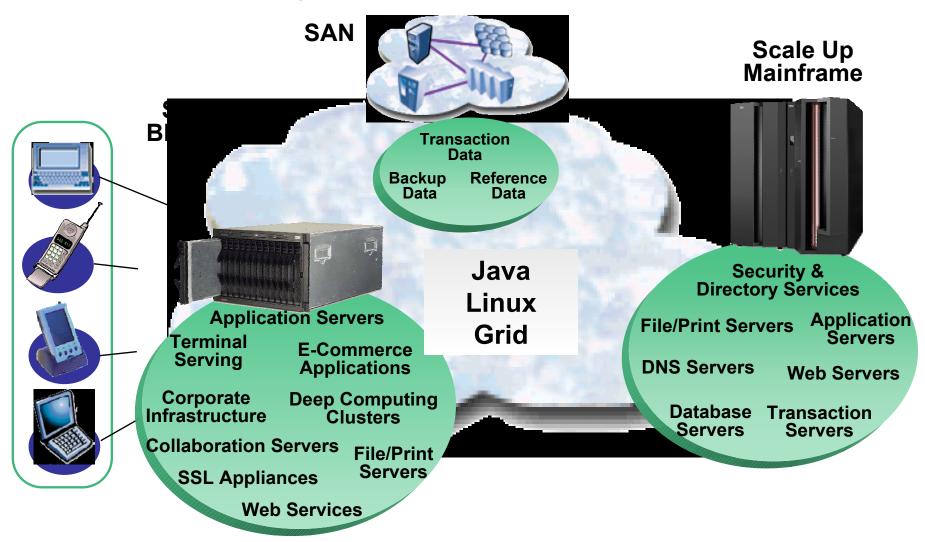
- Quickly deploy standardized apps, systems to improve interoperability and improve time to value
- Defense Network Centric Operations
- Customs, Ports and Border Management

- Virtualization Engine
- eServer w/ Linux (p, i, x, z)
- **\***zSeries Application Assist Processor
- **SAN Volume Controller**

- Introduce and integrate new business applications and IT systems into existing IT infrastructure
- •eGovernment Transformation
- On Demand Government Workplace
- **E-Forms/ Records Management Solution**
- Virtualization Engine: System Technologies
- •eServer runing Linux (p,l,x,z)
- Bladecenter
- **SAN Volume Controller**



## Infrastructure Simplification





## Virtualization with automation

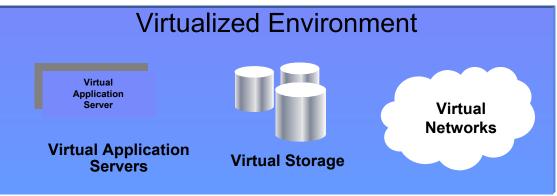
Resource Sharing can help increase flexibility, improve service levels and reduce costs

Overall Govt Agency Virtualization can help improve cost and speed

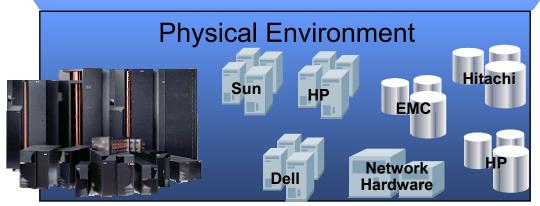
Systems Administrator More easily provision, manage and configure systems

Data Center Operations

Make changes transparent to users



#### Virtualization



xSeries, BladeCenter, pSeries, iSeries, zSeries, Enterprise Storage Server, FAStT



## IBM Virtualization Engine Services Overview

#### IBM Virtualization Engine Suite for Servers

- IBM Enterprise Workload Management: EWLM delivers workload monitoring capability on all series providing an end to end view of distributed applications. It also works with popular routers to influence network routing decisions based on which servers have the highest probability of achieveing service class response time goals. Future extensions may include influencing individual server resource optimization and integration with provisioning technology.
- Systems Provisioning: Systems Provisioning based on Tivoli Provisioning Manager technology delivers
  provisioning technology across IBM servers and storage, providing the capability to expand and shrink
  resources as demand changes. Future enhancements may include enabling billing, metering and
  accounting.
- IBM Grid Toolbox: IBM Grid toolbox is the IBM implementation of the Globus Toolkit that enables customers to create and manage grids and grid applications.
- IBM Director Multiplatform: IBM Director Multiplatform will provide web-based system management interface based on ISC (Integrated Solutions Console) technology – 04, Squadrons and BladeCenter, future plans to support all Series and Storage.

#### IBM Virtualization Engine Suite for Storage

 Includes: the IBM TotalStorage SAN File System, the IBM TotalStorage SAN Volume Controller Family, and the Productivity Center which includes MDM.

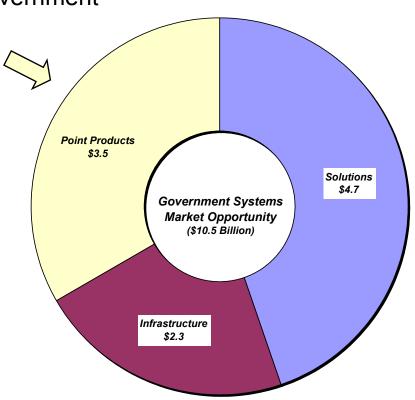


## **Competitive Play**

- Issues and Opportunities for Government
- STG Government Priorities for 2005
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  - On Demand Infrastructure for Government



- Competitive Play
- Routes To Market Priority
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## Competitive Framework

#### **Available Support**

Incremental revenue for incremental Investment through tailored business plan (WW funded)

Prioritised investment managed via tailored business plans & menu plus dedicated winback resource

Priority access, Pre-sales funding, aggressive pricing with profit recovery, silver bullets, dedicated winback resource

Priority access to brand specific programs/transactions based sales management S

## A "WW Castaway"

Large competitive base, high spend, low IBM share, \$50m opportunity

#### B

#### "Raptor Teams"

Industry/sub-Industry groupings of accounts
With large Sun/HP share, low IBM share,
\$10B+ opportunity

#### C

#### "Top competitive accounts"

Top competitive accounts with minimal IBM presence (<10% share)

#### D

#### "Brand competitive accounts"

Some IBM presence, develop into new areas or brands

US Federal Growth Case

**Australian Defence** 

**US Govt Classified** 

Federal Systems
Integrators

**CEMEA Government** 

Accounts and Opportunities prioritized by the brands/ regions





## Blades are Hot and a Security Solution too!

IBM eServer BladeCenter Security Solutions with integrated Nortel L-7 switch , and best of the breed Linux based Security applications from :

**Check Point, Trend Micro, Aladdin, with BladeFusion** as the operating environment ,managing multi-bladed security appliances in a single box - the BladeCenter

Internal Network Security in a Box with a innovative technology from Mazu Networks that can deal with Internal threats and Worms

#### **Key Customer Benefits**

- Multiple security applications in a single, easy to manage BladeCenter chassis
- □ Open, Linux®-based platform, with load balancing function with Nortel Layer 2-7 hardware switch provides carrier class performance, high availability at a much lower cost compared to multiple point solutions/appliances
- BladeCenters' superior scale out architecture allows network security systems to scale up with flexibility and resiliency – on demand.

#### **Security in a Box - Reference Architecture**

Firewall/VPN: Check Point

Content Scanning and Content Filtering: Trend Micro

Intrusion Detection/Prevention: MX Logic , Sana Security

**Security Management : Blade Fusion** 

Worms and Internal Threats: Mazu Networks

Nortel Switches embedded in the BladeCenter

Security Appl Load balancing Port Mirroring w/IDS Attack Prevention

Radius/TACACS+ support for User Authentication/Access Control



#### Why are Government customers implementing Grid Computing solutions?

#### Data Sharing & Collaboration

Grid architecture provides the ability to store, share and analyze large volumes of data (i.e. EPA & Dept of Energy, eDiamond, NDMA, WestGrid, CERN, European DataGrid etc.)

#### Accelerate Research & Development

Grids provide Governments, Life Science companies and Higher Education institutions the ability to speed up analytical research & development.

(i.e. North Carolina BioGrid, Smallpox Grid)

## Ability to run new High Performance Computing (HPC) applications Grid computing provides a cost effective I/T architecture for running new applications. (i.e. TeraGrid, Japan AIST, UMass, FNMOC)

#### Open standards and shrinking I/T budgets

(i.e. EPA & Dept of Energy)



## **IBM Grid Computing Offerings for Government**

#### IBM Grid Offering for Information Access

Maximize the usage and integration of existing government data resources to provide the information needed to help make decisions:

- Simplifies data access and integration through unified cross-platform data / file interfaces
- Enables innovative information analysis (data mining, text mining)
- Provides an extensible infrastructure focused on transparent data availability

#### IBM Grid Innovation Workshop





#### **Common Grid Computing Scenarios in the Government Industry**

- Server consolidation or large system implementations
- High Performance Computing (HPC) simulation, modeling, weather (e.g., EPA, DoD, NASA, etc.)
- Information integration federation, data virtualization, storage virtualization
- Collaboration inter/intra agency data exchange, large-scale data integration with states and outside collaborators (e.g. NIH, DoE, DoD, NASA, etc.)
- Variable computing demand
  - Large public or federal web sites
  - Cyclical needs (e.g., GSA FPDS-NG, IRS, etc.)
  - Emergency response solutions (e.g., CDC, state anti-terrorism system interfaces, etc.)
  - Benefits administration (e.g., VA, agency HR)
- Digital media
  - Digital surveillance
  - Streaming video
- Large-scale data warehousing and analytics (e.g., intelligence community, Census, DoD, etc.)



### Call to Action





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Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and they orkload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.

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