

System z Hybrid Management

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agility
made possible™

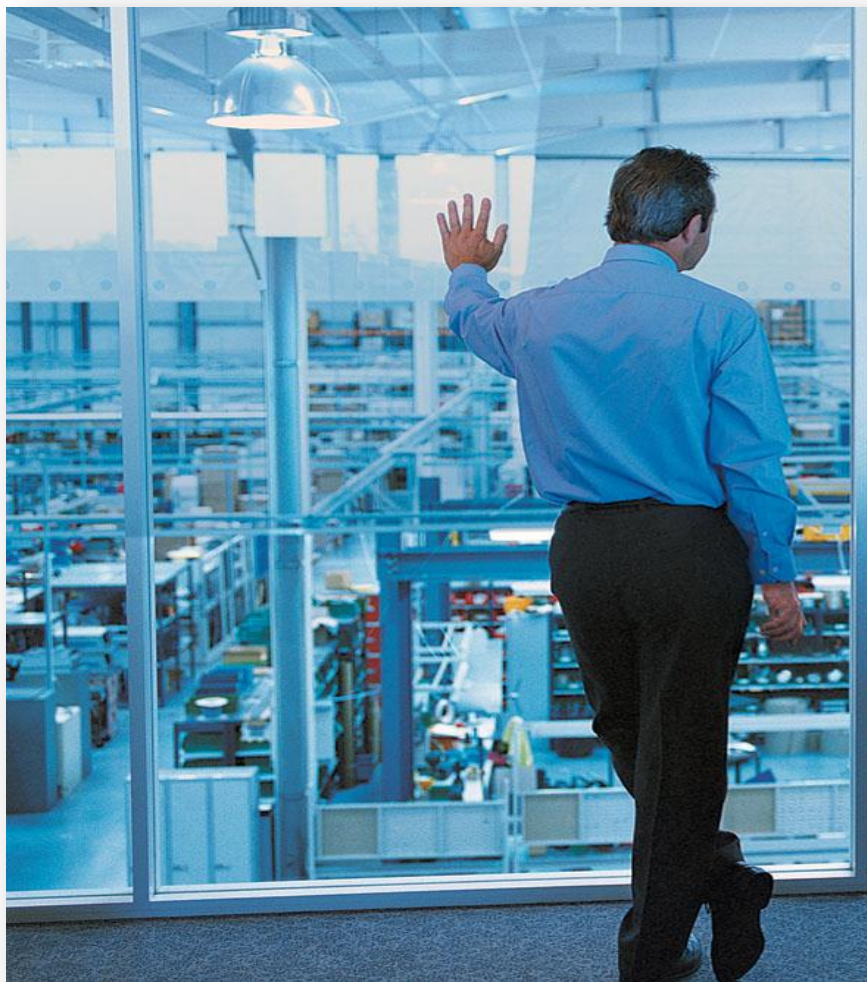
ca
technologies

Instructions

This file contains the PDF copy of the presentation which has a significant amount of animation. The other file contains the presentation in Microsoft PowerPoint 2010 show format. To view the show, you must rename that file from “.pdf” to “.ppsx” and either have Microsoft PowerPoint 2010 or the Microsoft PowerPoint 2010 viewer. The viewer is easily found on the Microsoft website by Googling for “Microsoft Powerpoint 2010 Viewer”

As Cloud, zEnterprise and Linux on System z intersect to create the perfect computing storm, organizations require a comprehensive mainframe strategy and innovation to leverage their mainframe assets in complex enterprise integration initiatives. Explore how the next generation in mainframe management solutions can help you reduce costs, simplify management, and increase operational efficiency so you can continue to provide the highest levels of service to your business while enabling your current and new staff to manage the mainframe more effectively.

the CIO's pain: the pressure is on

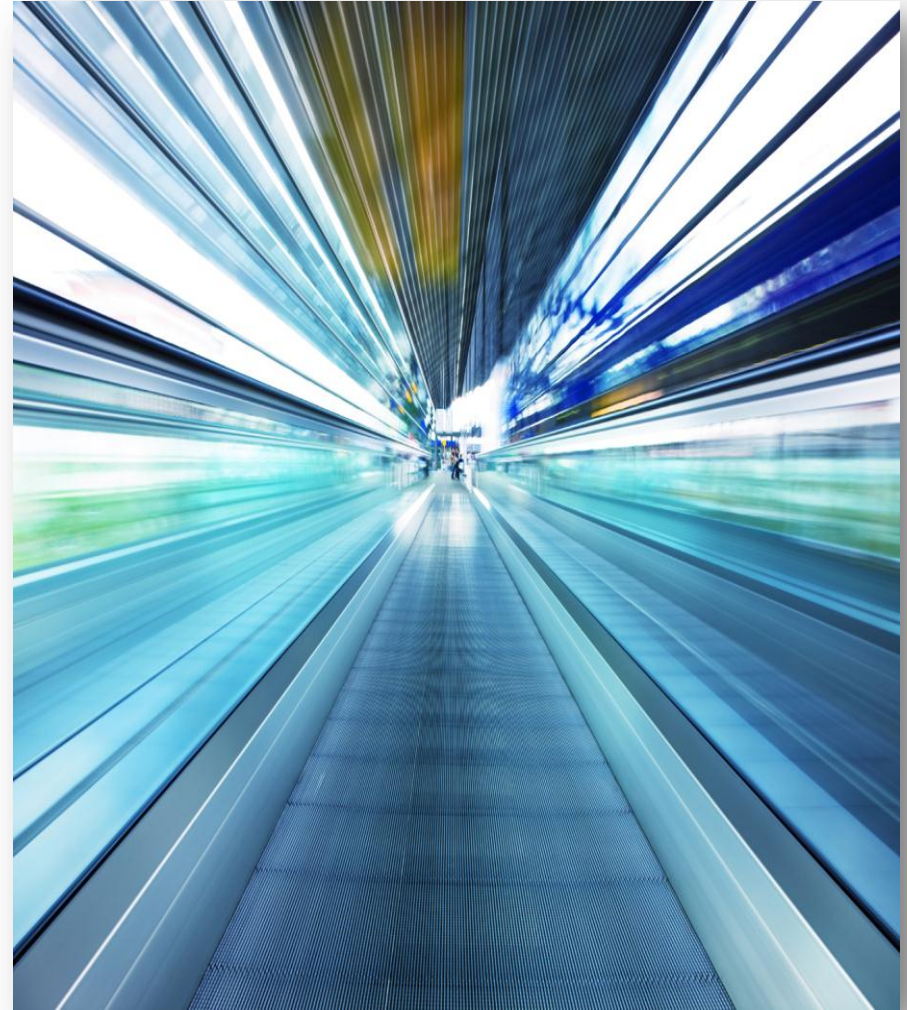


Business demands are setting CIO priorities

- The business demands agility and innovation at lower risk and cost
- IT imperatives:
 - Reduce cycle time
 - Reduce costs
 - Combine new technologies with existing systems

the CIO's pain: the pressure is on to increase agility

“...the biggest winners will be companies that can combine the advantages of scale with the agility to respond to fast-changing market conditions. Agility is essential because technology continues to evolve rapidly.”



Source: The World in 2011: The Economist Intelligence Unit

maintain or significantly grow future workloads



87%

Source: Velocity Mainframe Survey, Feb. 2011

the mainframe is an essential part of the future IT strategy



85%

Source: Velocity Mainframe Survey, Feb. 2011

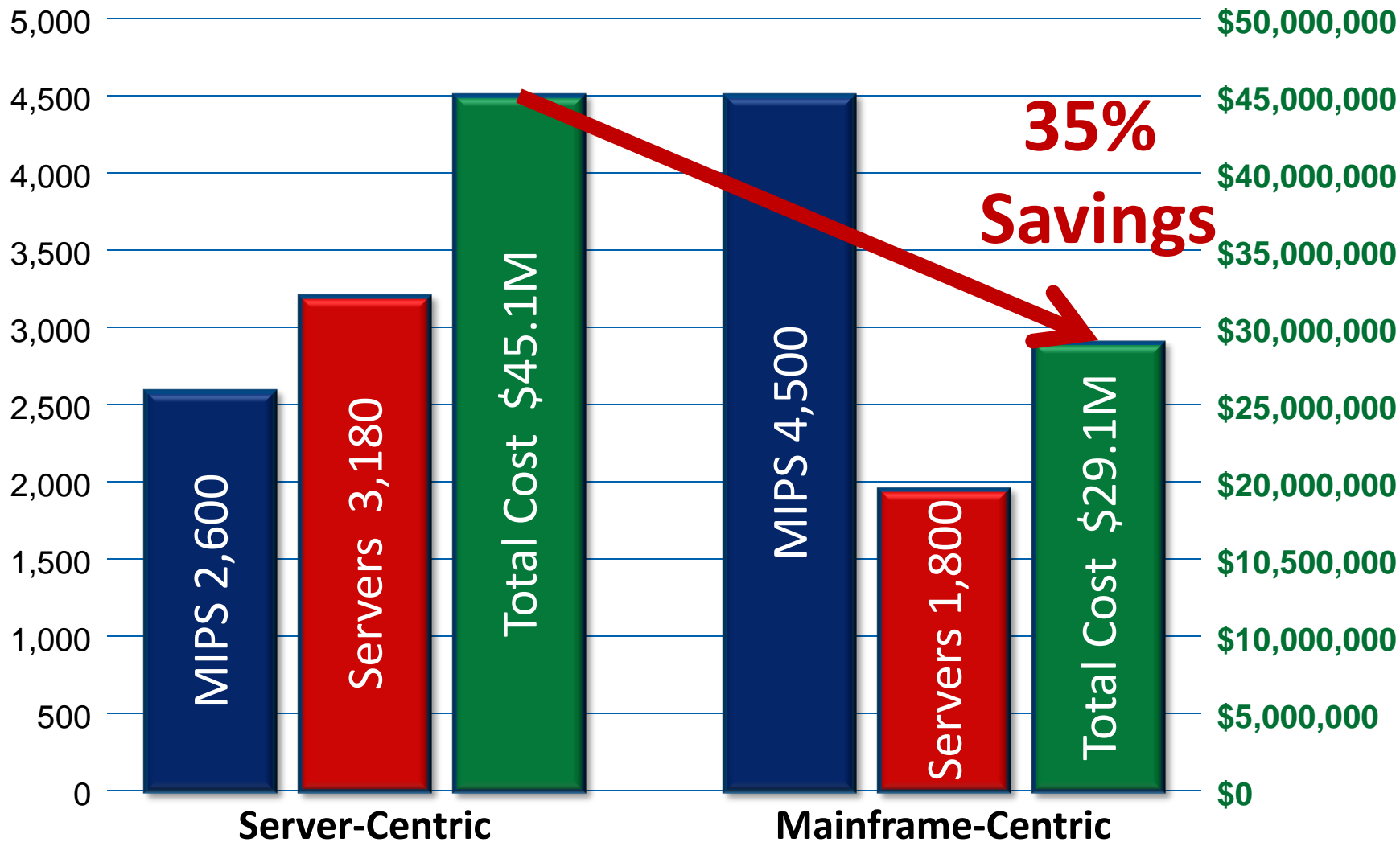
pressure to accelerate time to value with cloud initiatives



80%

Source: Velocity Mainframe Survey, Feb. 2011

the mainframe is a source of economic advantage*



*Source: Dr. Howard Rubin, *The Surprising Technology Economics of Mainframe vs. Distributed Servers*

the state of the business today

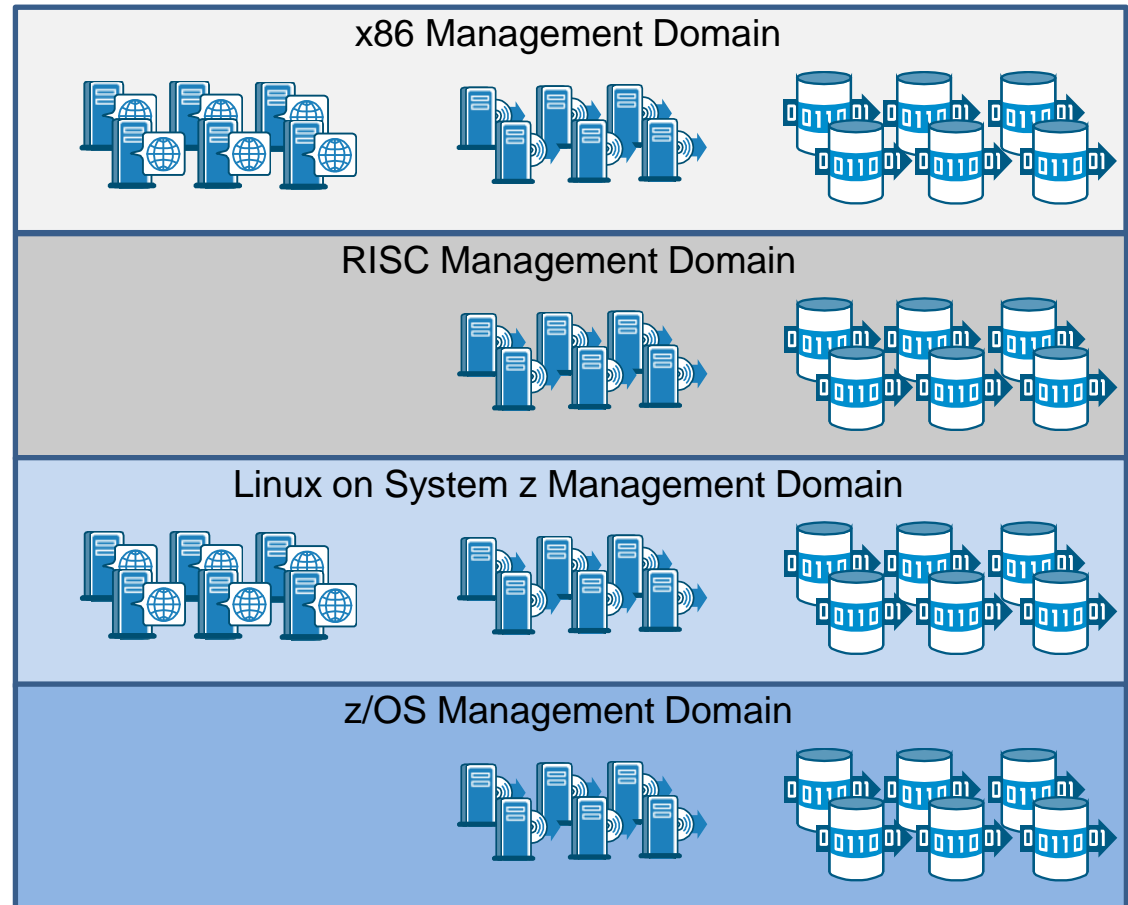
CUSTOMERS

INTERNET

WEB SERVING

APP SERVING

DB SERVING



the state of the business today

- For historical reasons, systems management is done along platform lines
 - There may even be subdivisions along functional lines
- What comprises a “management domain”?
 - People
 - Process
 - Hardware
 - Software
 - Tools
 - Measurements
 - Schedules

Politics

the state of the business today

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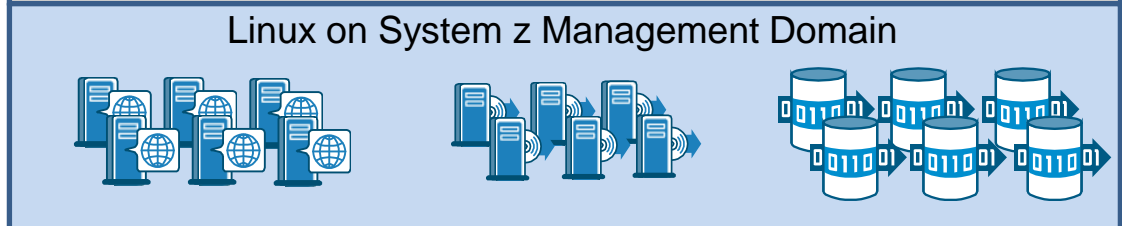
Automation	Monitoring	Provisioning	Virtualization
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but business is focused on outcomes, not platforms

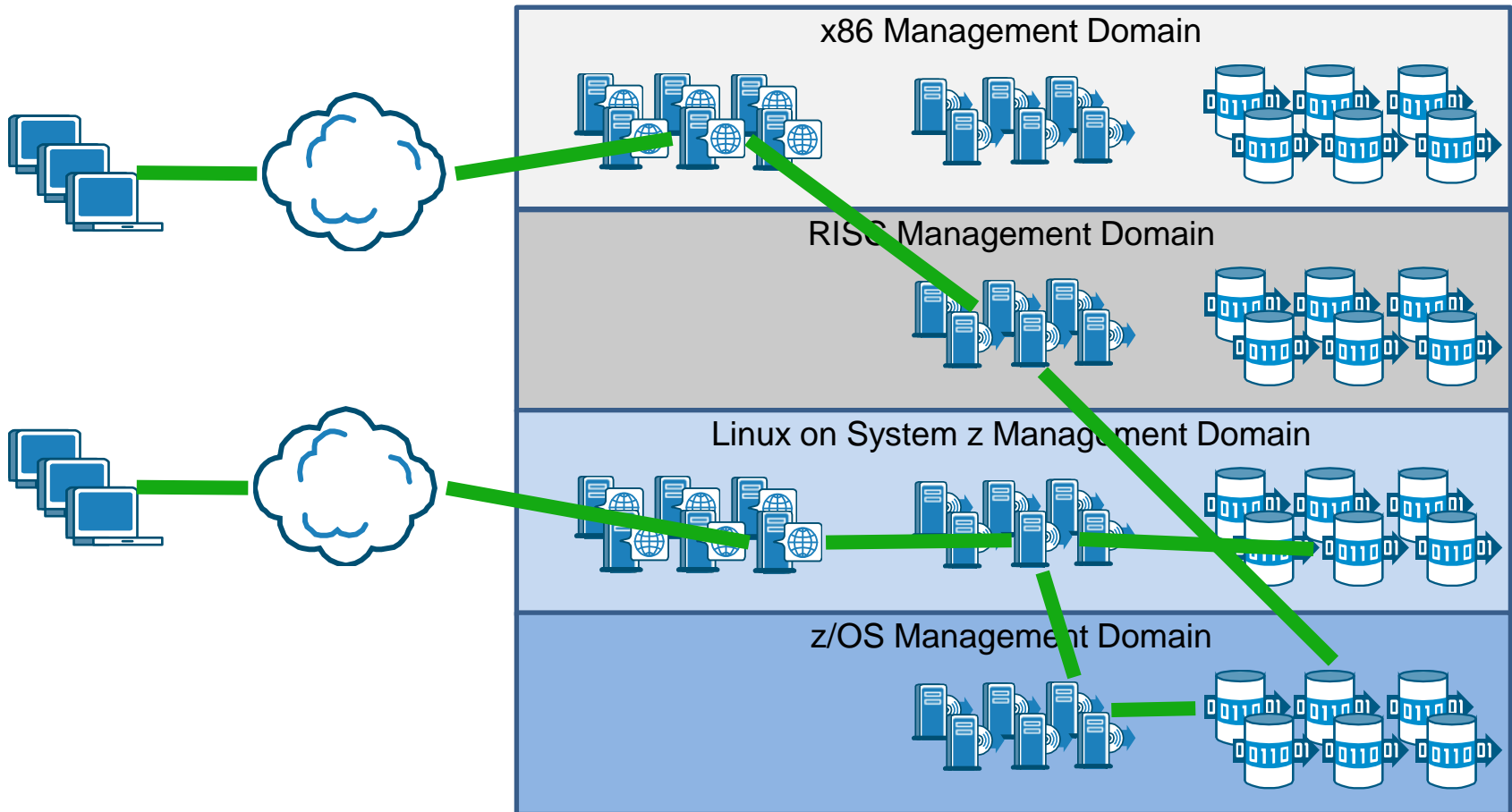
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but business is focused on outcomes, not platforms

- The business wants to describe a problem for IT to solve:
 - Inputs
 - Outputs
 - Metrics & SLAs
 - Cost
- IT takes these criteria and uses them to deliver a service
 - Resources are decided based on the requirements delivered by business
 - Historical deployment greatly influences the delivered architecture
 - Often, there is external pressure to use particular technologies
 - “Cloud” ... “not mainframe” ... “Oracle” ... “Linux”
- Application developers will use whatever they have on-hand to create and deliver new value to the business

what does zEnterprise bring to the party?

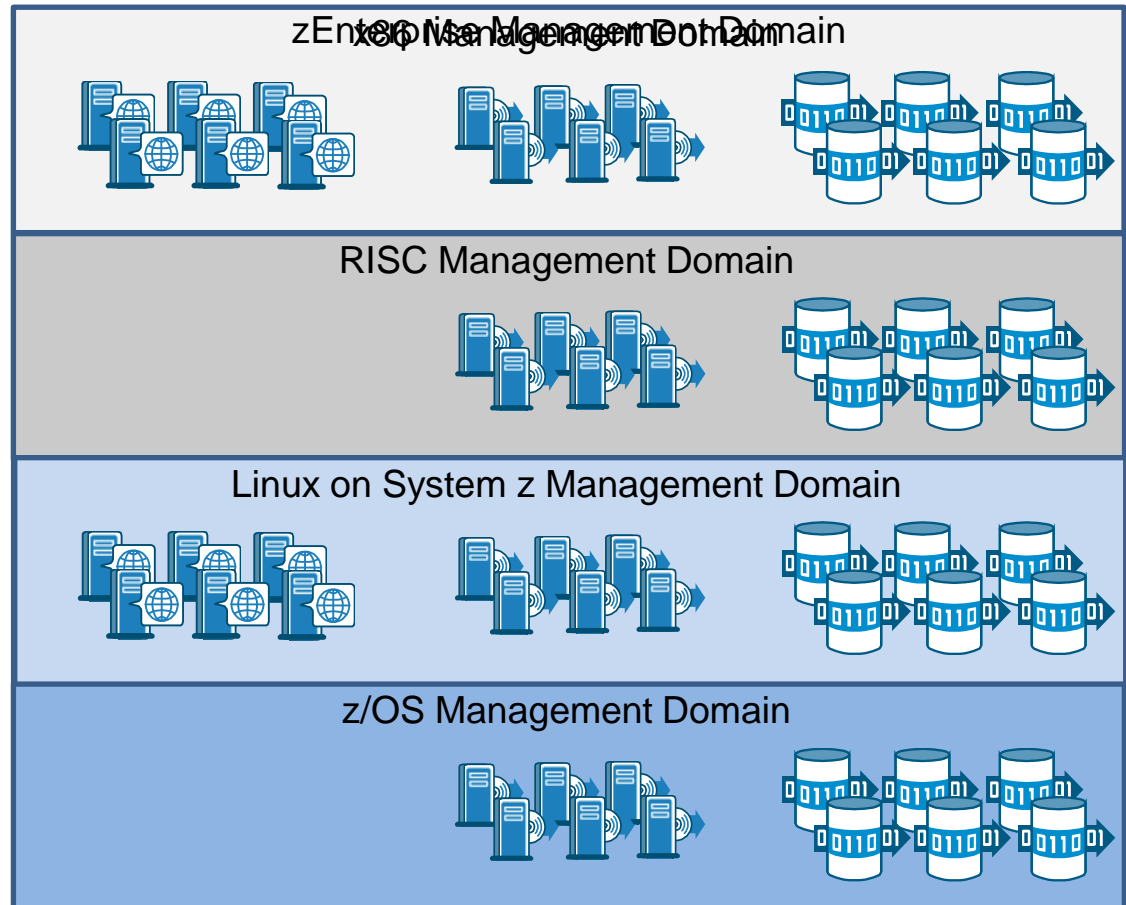


Automation	Monitoring	Provisioning	Virtualization
Automation	Monitoring		
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WEB SERVING

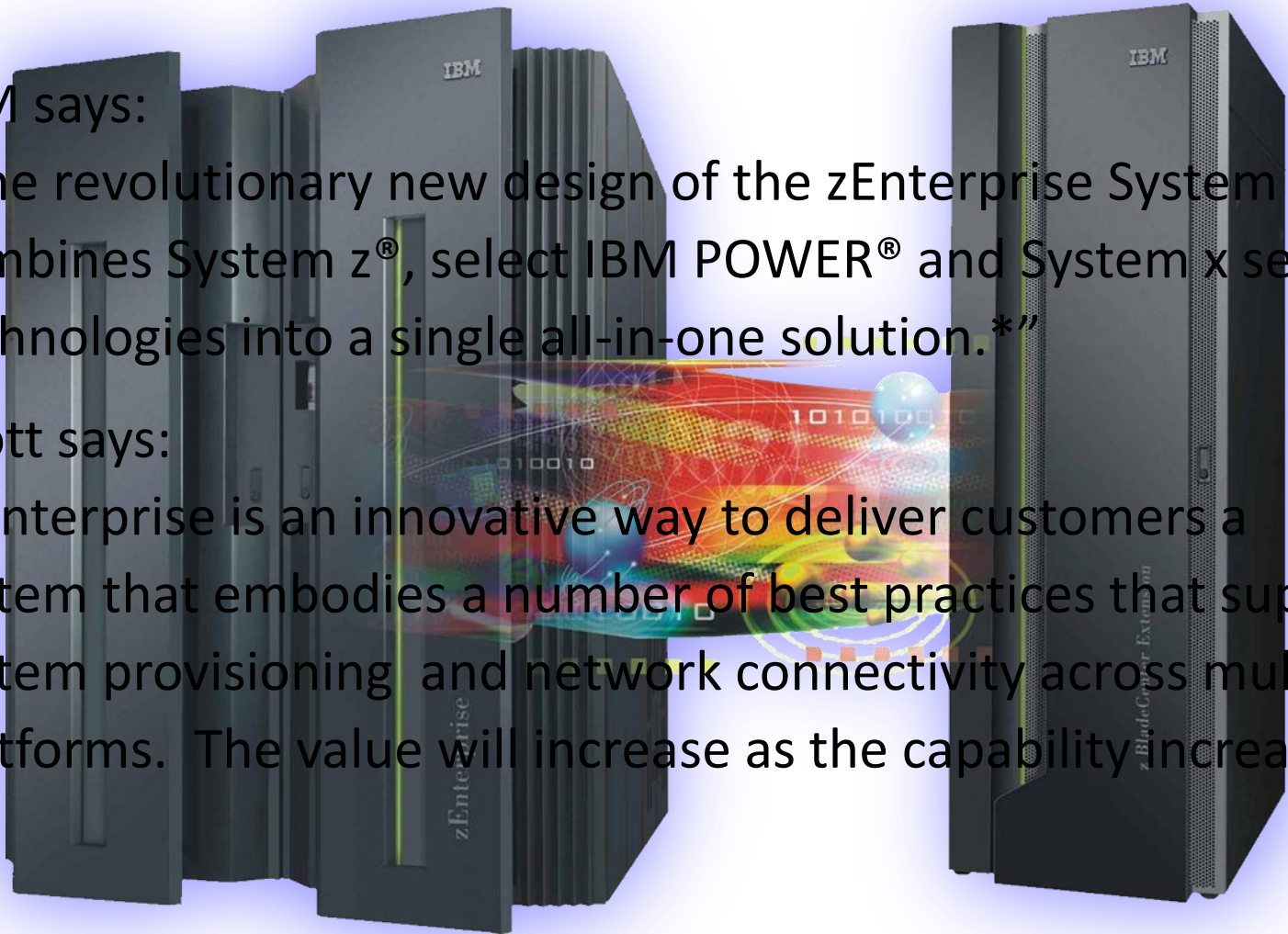
APP SERVING

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so, zEnterprise solves these problems?

- IBM says:
“The revolutionary new design of the zEnterprise System combines System z[®], select IBM POWER[®] and System x server technologies into a single all-in-one solution.*”
- Scott says:
“zEnterprise is an innovative way to deliver customers a system that embodies a number of best practices that support system provisioning and network connectivity across multiple platforms. The value will increase as the capability increases.”



* <http://www-03.ibm.com/systems/z/news/announcement/zenterprise.html> - IBM zEnterprise System – Freedom by Design

what does zEnterprise bring to the party?

Pros:

- A consistent approach to provisioning and deployment of hardware and virtual resources
- A set of pre-packaged “accelerators”
- “Mainframe-level” qualities of service for hardware
 - Higher availability, “Call Home”
- Hardened networking infrastructure within the zEnterprise Ensemble
 - Intraensemble Data Network (IEDN)
 - Intranode Management Network (INMN)

what does zEnterprise bring to the party?

- Leverages the strengths of the mainframe community:
“the Greatest Generation of IT”
- *(When available)* Common set of programming interfaces for management software to access hardware and virtual server resources within the ensemble

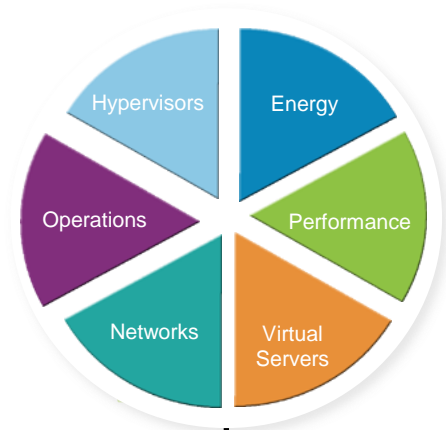
Cons:

- Confusion about long term commitment to platforms
 - Linux on System z, Windows, ...

before zEnterprise



with zEnterprise



Limitations:

- Only “select” IBM gear can be in an ensemble.
- IBM has not announced any support for non-IBM hardware.

what is next generation ~~mainframe~~ **IT** management?

IT must work to align with the services delivered to the business

- There are two sides to the coin: technology and people/politics
- Technology: the zEnterprise ensemble provides a technology model that is achievable without actually committing to a specific implementation
 - But more support is required
- People/politics: need to change the “angle” on how IT is managed; transition from focusing on **platform management** (managing a technical silo) to **supply chain management** (managing a process flow through a set of services).
 - I often hear, “we need to become more ‘cloud-like.’”
 - But need to provide management tools that enable this view

it's the service that matters (whether you adopt zBX or not)

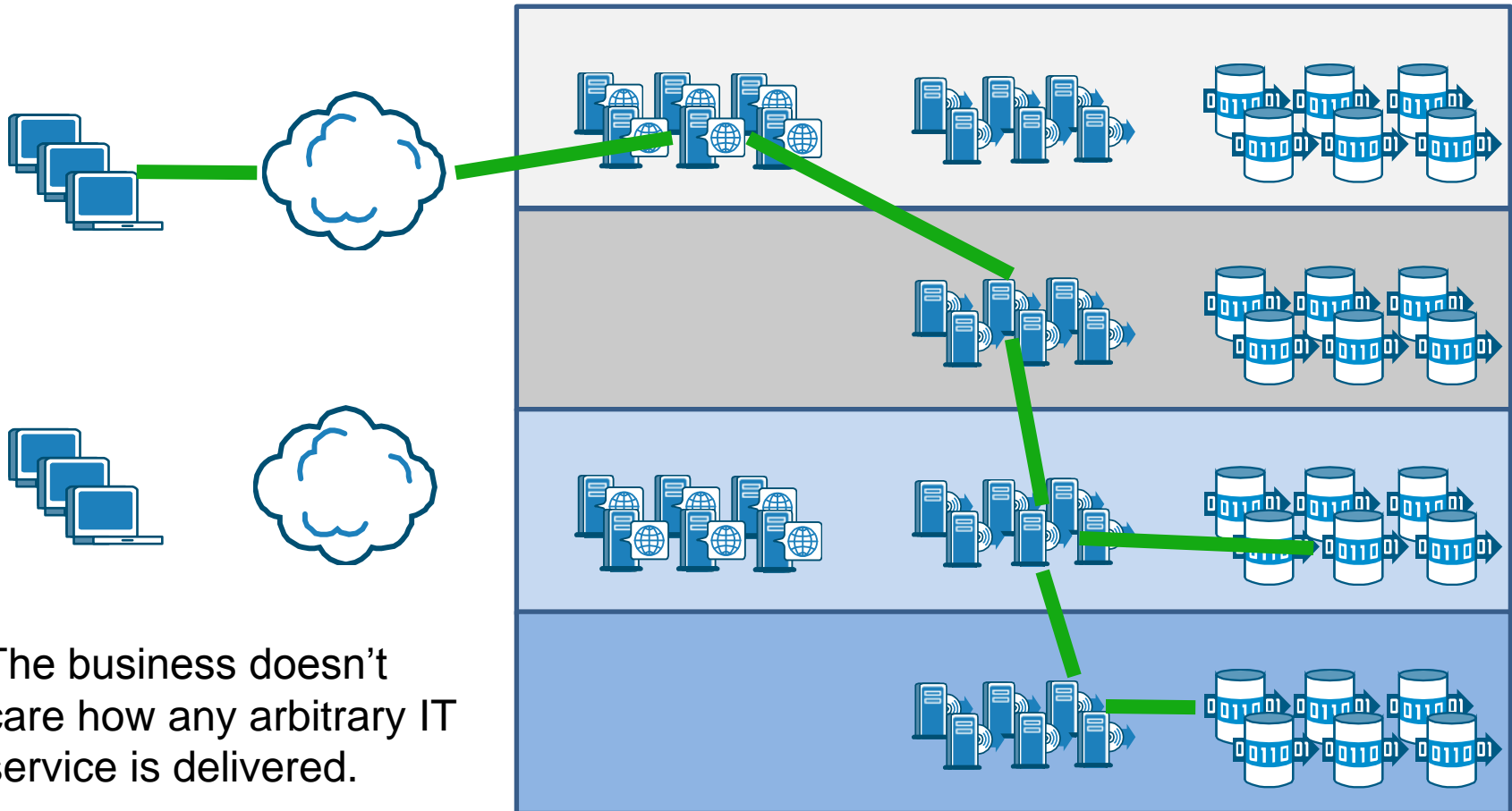
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The business doesn't care how any arbitrary IT service is delivered.


what's missing?

- Current political alignment to platform naturally works against IT agility
 - Change, by its nature, creates instability in the system
 - Management, by their nature, want to measure performance and are requiring an acceleration of the pace of change
 - Platform teams are typically measured by platform SLAs, not adaptation to new business needs
- What's necessary are tools that help support and measure IT's response to business requirements, not individual platform metrics
 - A single source of truth
 - Simplify alignment to business
 - Augment, not replace, platform specific capabilities of existing tools
 - Aggregate data and convert “technicalese” into business metrics
 - Integrate, integrate, integrate



converging the IT workforce

- The mainframe will be central to IT for the foreseeable future
- On-ramp to mainframe mastery is long & steep
- “Net Generation” thinks and works differently
- Need tools and processes that unite mainframe and distributed



Pioneers
of IT
“Mainframe”

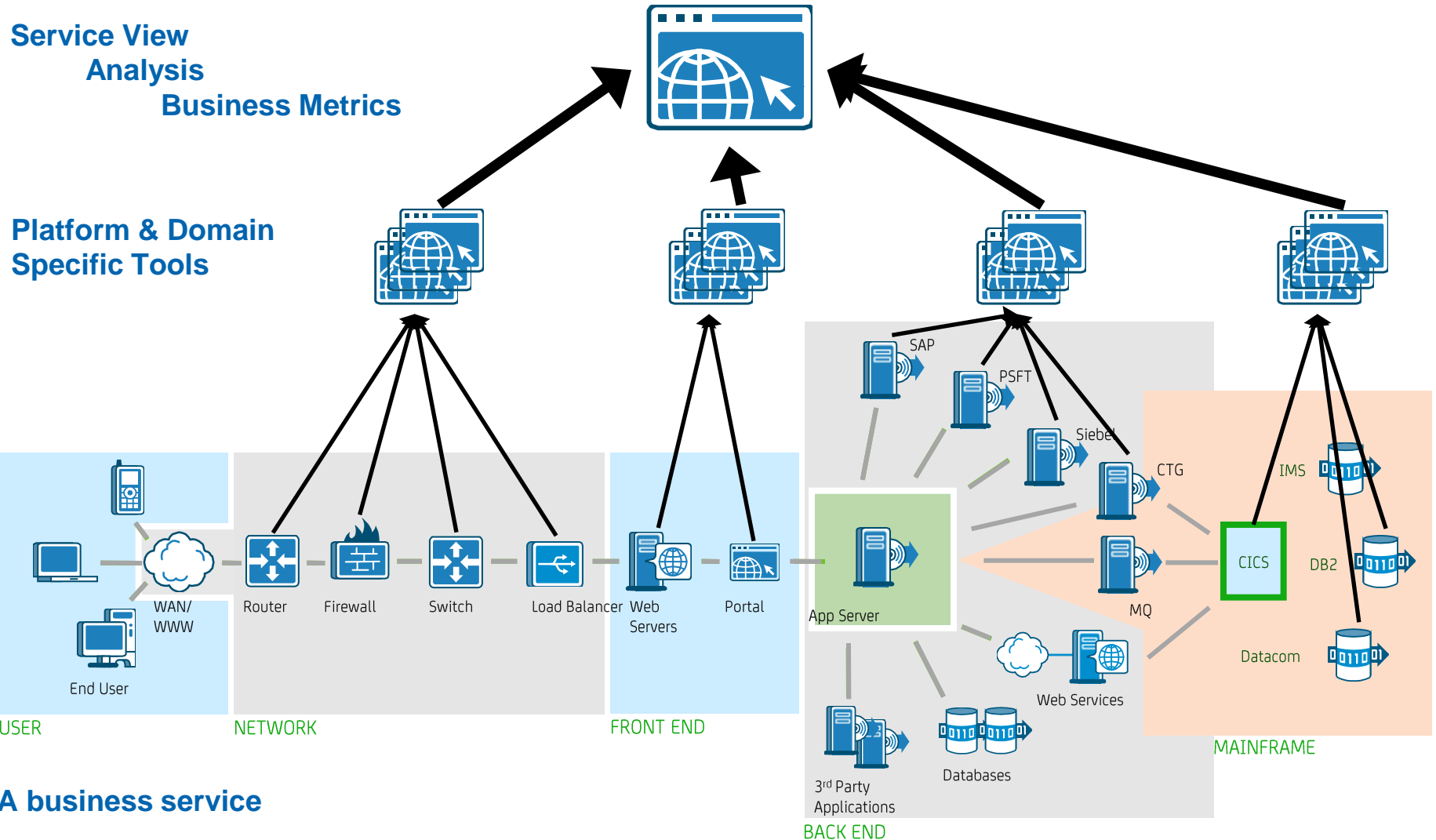
Converged
“ambidextrous”
IT Workforce

Next
Generation
“Inframers”

an architecture for alignment

- To further enable IT and the business to align to improve service delivery, I believe that there are a set of principles that need to be adhered to:
 - The investment in current tools (e.g. training, customizations) must be preserved to reduce the risk of “backsliding” in capability or resilience
 - Existing tools need to become more “programmable” – driven by other tools as well as people
 - New capabilities are necessary to combine data and capabilities that can be applied to IT services, rather than being stitched together by customers or services engagements
 - The ability to perform “ad hoc” actions (e.g. prototyping, impromptu data collection/reporting, specialized metrics and monitoring) needs to be moved closer to the business

an architecture for alignment



A business service

monitoring the enterprise

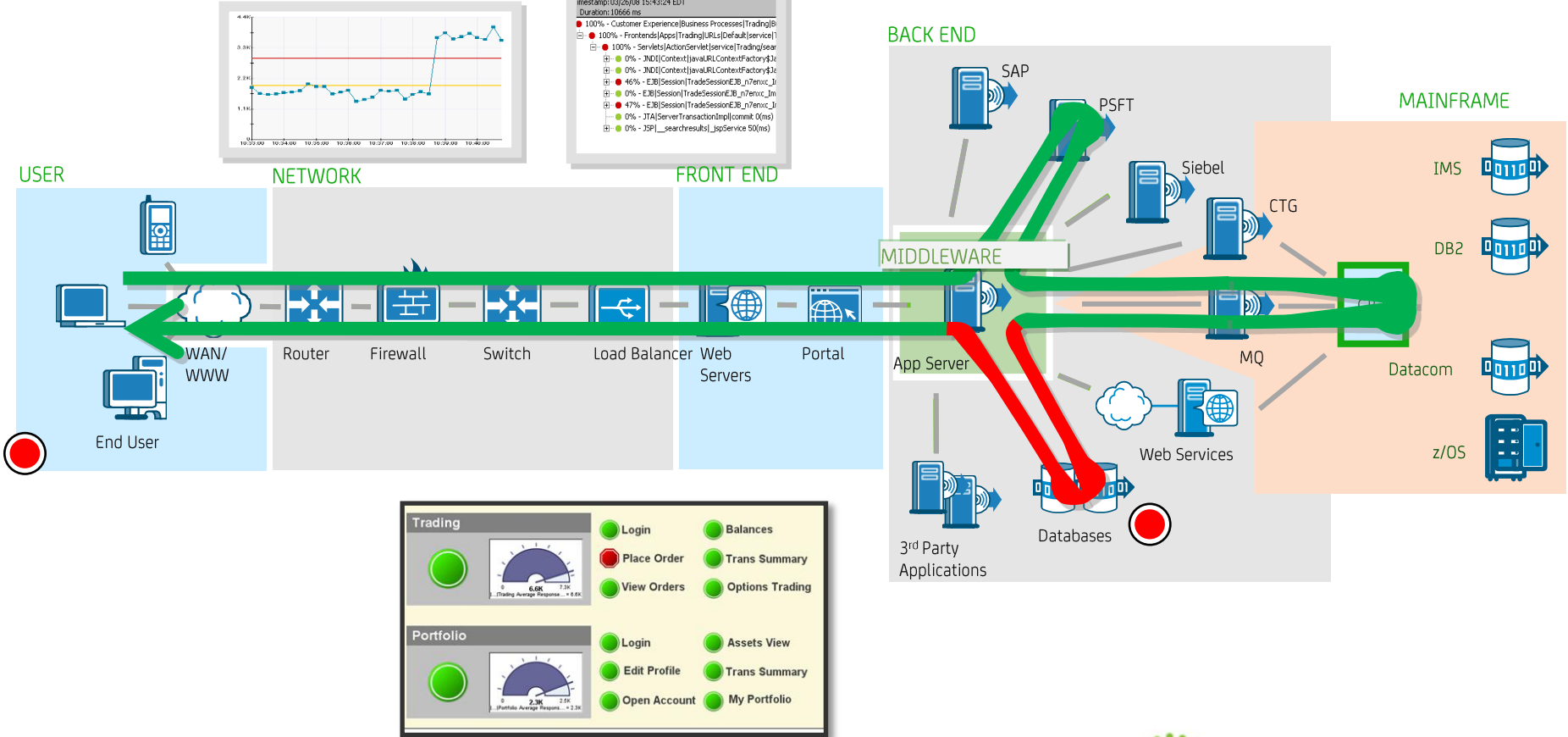
- Monitoring technology is excellent for monitoring and measuring at the platform and subsystem levels
- The capability to integrate monitoring of applications, subsystems and disparate platforms is the next area where investment and invention is needed
 - Discovery, monitoring, aggregation, “impedance matching”
- It’s not enough to just gather and aggregate data, two more capabilities are needed:
 - Synthesis of business metrics, e.g. “failed customer interactions,” “orders per second”
 - Analytics for not only trending and capacity management, but also for early warning of potential failures and recognition of potentially misuse of applications

monitoring the enterprise

CA Cross-Enterprise Application Performance Management

```

002245
002246      230000-COLLECT-BGDT089.
002247
002248      *
002249      → MOVE SPACES      TO TAB-V089.
002249      SET IND          TO 1.
002250      MOVE SPACES      TO DETAIL1.
    
```



automating the enterprise

- Automation is a key capability used by IT to improve the efficiency, reliability and availability of IT services
- Many installations have decades of automated scripts and actions that are just part of the fabric
- “Crossing the platform divide” is often done with custom built extensions to various products – resulting in fragility that is often exposed when upgrading the automation products or the underlying middleware

automating the enterprise

```

System: CA11  SSM Mode: ACTIVE  Version: 2
Disp: E (B/V/E)  States
Cm Sta Resource Name  Current Desired Res
-----
= APPC              UP      UP      A
= CAS9              UP      UP      A
= CA11              UP      UP      A
= CA7ONL            UP      UP      A
= CICSPRD1          UP      UP      A
= CICSPRD2          UP      UP      A
= DATACOM          UP      UP      A
= DB2PMSTR          UP      UP      A
= DB2TMSTR          UP      UP      A
= IMSPRD1           UP      UP      A
= JES2              UP      UP      A
= NET               UP      UP      A
= OMVS              UP      UP      A
= TCPIP             UP      UP      A
***** Bottom of data *****
    
```

SDTicket_Start_Auto_Move

Critical_Apps_State

Stop_XE_CritApps
"/MFoperators/Outage/Stop_XE_CritApps"

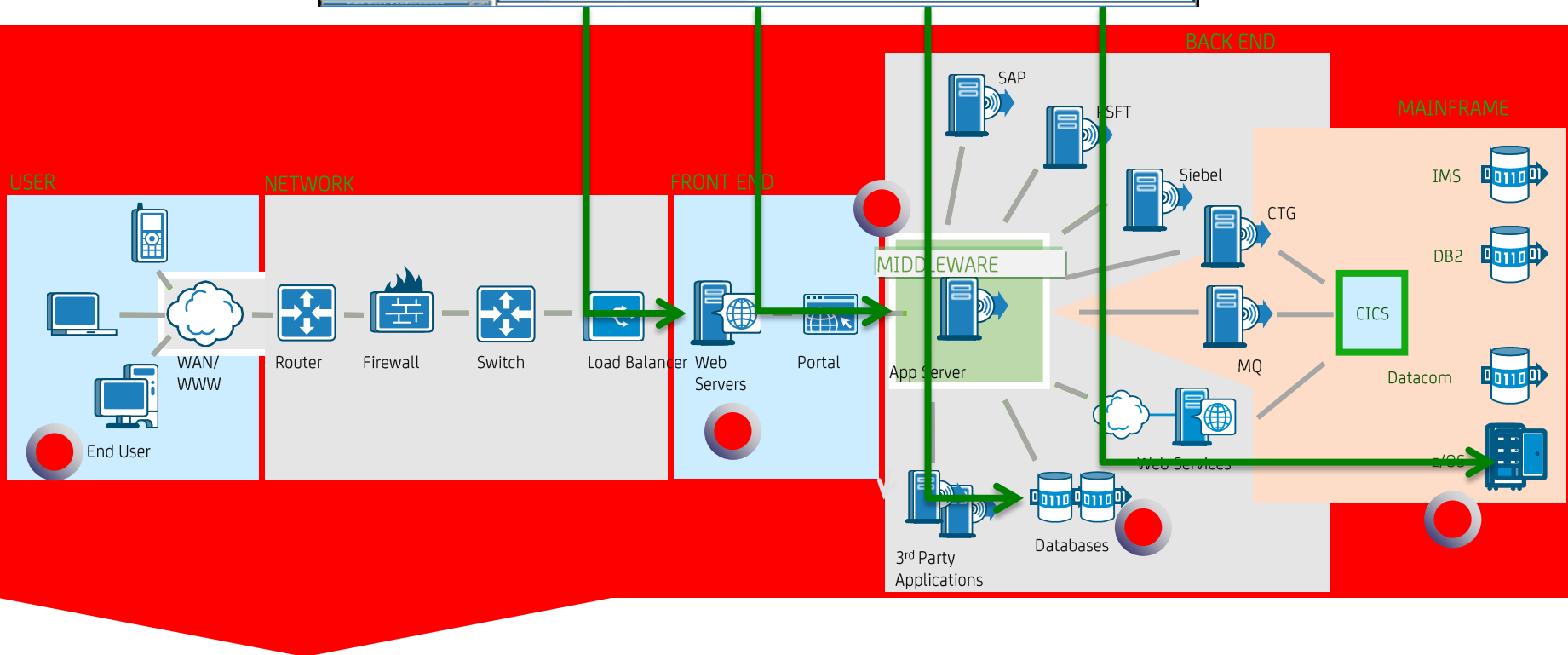
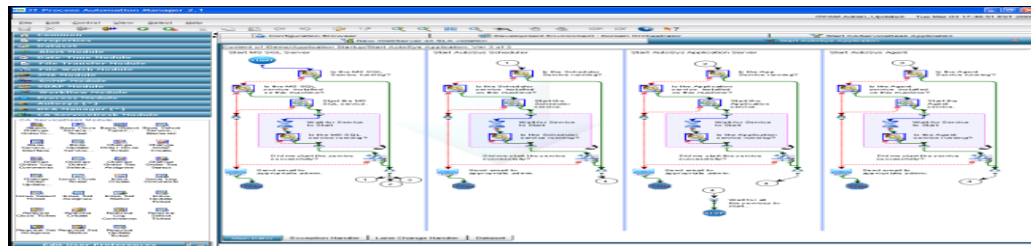
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Update_SDTicket_XEAppsStopped

2 1

automating the enterprise

CA Process Automation

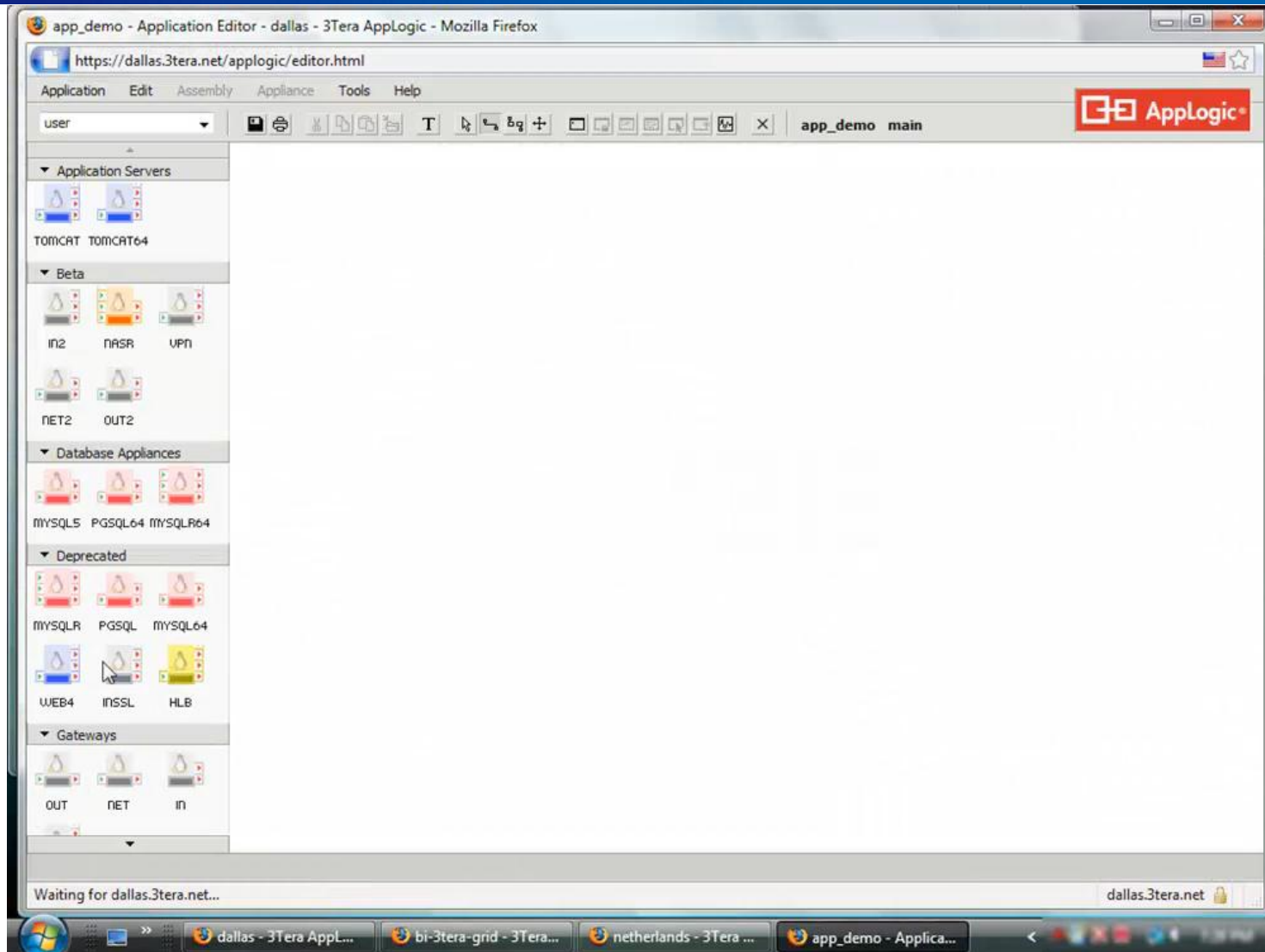


provisioning for the enterprise

- A key inhibitor to the development of new complex IT capability is the amount of time/effort it takes to obtain provision the necessary gear
- I often hear complaints about “rogue IT projects” going around traditional means to solve problems
 - Leads to atypical/unsupported configurations or, worse, unsupportable combinations of hardware and software
 - Going “off the board” to cloud or other sources of compute capacity
- Need means for IT to easily provide capacity and approved configurations that don’t require excessive bureaucracy

provisioning for the enterprise

CA AppLogic



a common integration platform

CA Mainframe Chorus

CA Mainframe Chorus - Mozilla Firefox

http://ca31:49235/Chorus/Chorus.html

Chicago LPAR DEB0 : RACROU...

Security Alerts

Delete	Severity	Time	Event...	Message	System	User...
<input type="checkbox"/>	1	Mon, Oct 31	OBJECTACC	DEB0 OBJE DEB0	DEB0	SYSVTE
<input type="checkbox"/>	1	Mon, Oct 31	OBJECTACC	DEB0 OBJE DEB0	DEB0	SYSVTE
<input type="checkbox"/>	1	Mon, Oct 31	OBJECTACC	DEB0 OBJE DEB0	DEB0	SYSVTE
<input type="checkbox"/>	2	Mon, Oct 31	SIGNON	DEB0 SIGN DEB0	DEB0	DEFAULT
<input type="checkbox"/>	3	Mon, Oct 31	OBJECTACC	DEB0 OBJE DEB0	DEB0	ACF8TC

Investigator

Title	Modified	Author
Database - Plan A	Mon Oct 24 08:04:	varan01
Storage group vol1	Fri Oct 21 10:51:14:	patno01
Storage group vol1	Wed Oct 19 09:04:	varan01

Notes

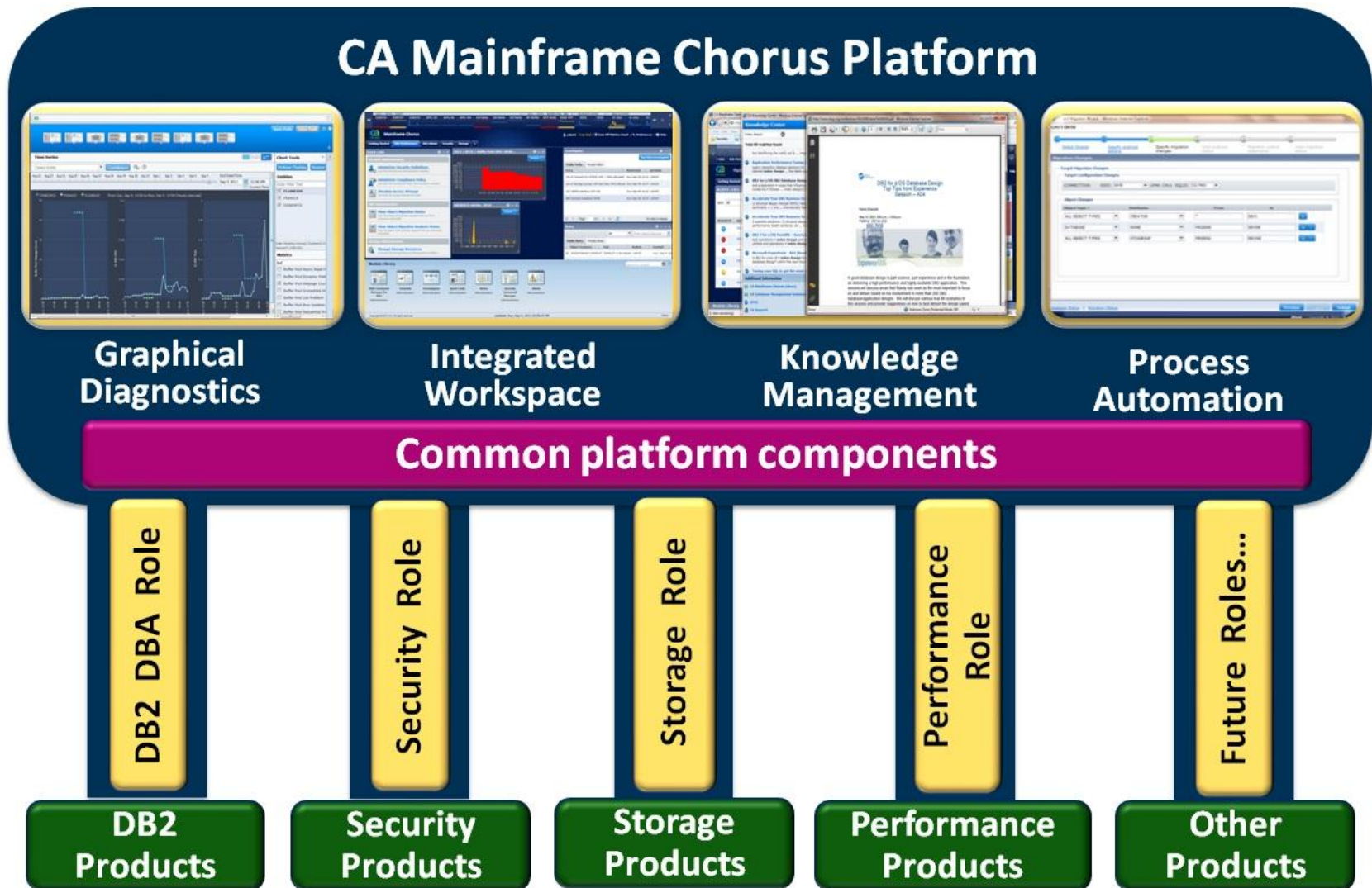
ID	Text	Author	Created	Object Ins
196	hello this i	drema02	Thu, Oct 2	Storage Gr
192	Public note:	vamsa01	Thu, Oct 2	SMS-SC (S
179	Public note:	houle02	Tue, Oct 21	Storage Gr

Module Library

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a common integration platform

CA Mainframe Chorus architecture



new requirements will emerge

- The environment we live in is only going to continue to change, probably at an accelerating rate
- New management challenges will emerge, likely along the areas of security, compliance, data integrity
- Hybrid architectures will demand consolidated tools to make solutions to these next problems even possible
- Need for modeling and analysis for both testing and capacity planning/management is going to increase

- The next step to achieve more effective IT use by business is to realign IT to the services that it delivers to the business
- The zEnterprise is a great start towards federating the various platform groups within IT
- More is required to help IT better align with and move at the speed of business
- Management software (and software vendors) must raise the game to the next level by enabling, supporting, and encouraging this alignment
 - Data must be aggregated and aligned to delivered services
 - Data must be converted into business metrics

questions?

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