Session 11650: Building a Platform for Enterprise-Wide Datacenter Operations

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Distinguished Engineer & Chief Architect - Mainframe

agility made possible™

ca technologies

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abstract

As mainframe and distributed systems converge, cross-platform automation is key to successfully delivering enterprise-wide IT Business Service Innovation.

The speaker will discuss how CA Technologies is helping to provide seamless automation of IT processes and events across functional and technological silos.

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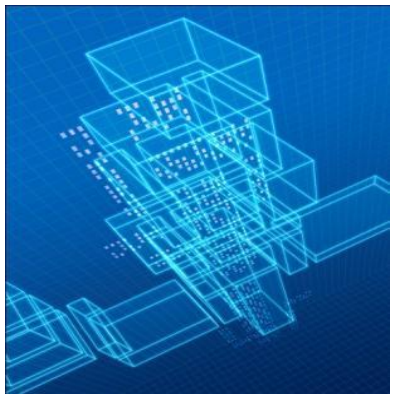

88%
Enterprise Commercial Apps Moving to the Cloud

Can you keep up with business demand for innovation?

Sources: See addendum

30%
of IT budgets being allocated to cloud deployments

74%
Companies have deployed hybrid cloud services

73B
Estimated for Public Cloud in 2015

1 IDC, "Top 10 Predictions, Worldwide CIO Agenda 2012 Top 10 Predictions," David McNally, Meredith Whalen, January 2012. IDC #232816. Volume 1.

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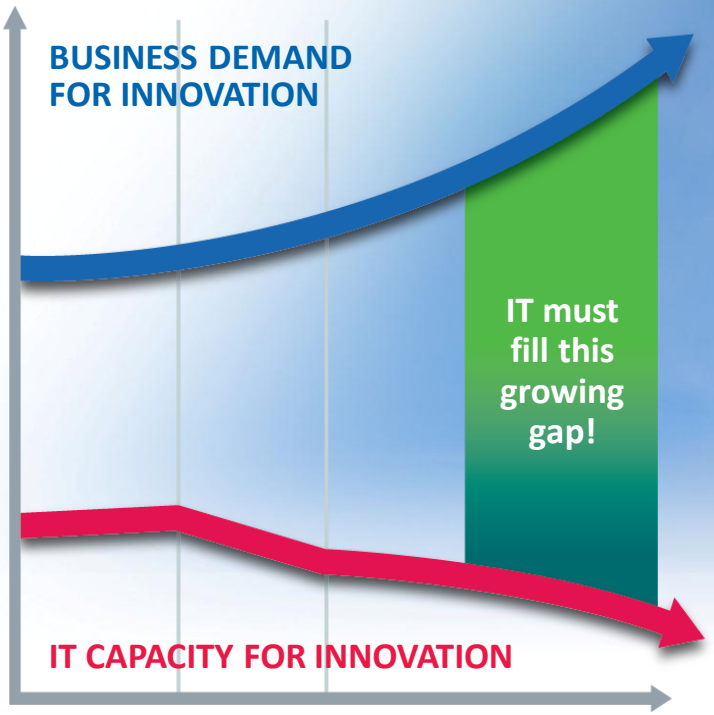
the “New Normal” and the shift to innovation



IT must deliver new services that ACCELERATE INNOVATION

Mobility | Social | Big Data | SaaS | Client Experience

While TRANSFORMING delivery of mainstream IT

Rationalization | Agile Cloud Delivery | Standardized Infrastructure | Automation Reengineering | Bring Your Own Device

Shift from

Managing Technology To Delivering Innovation

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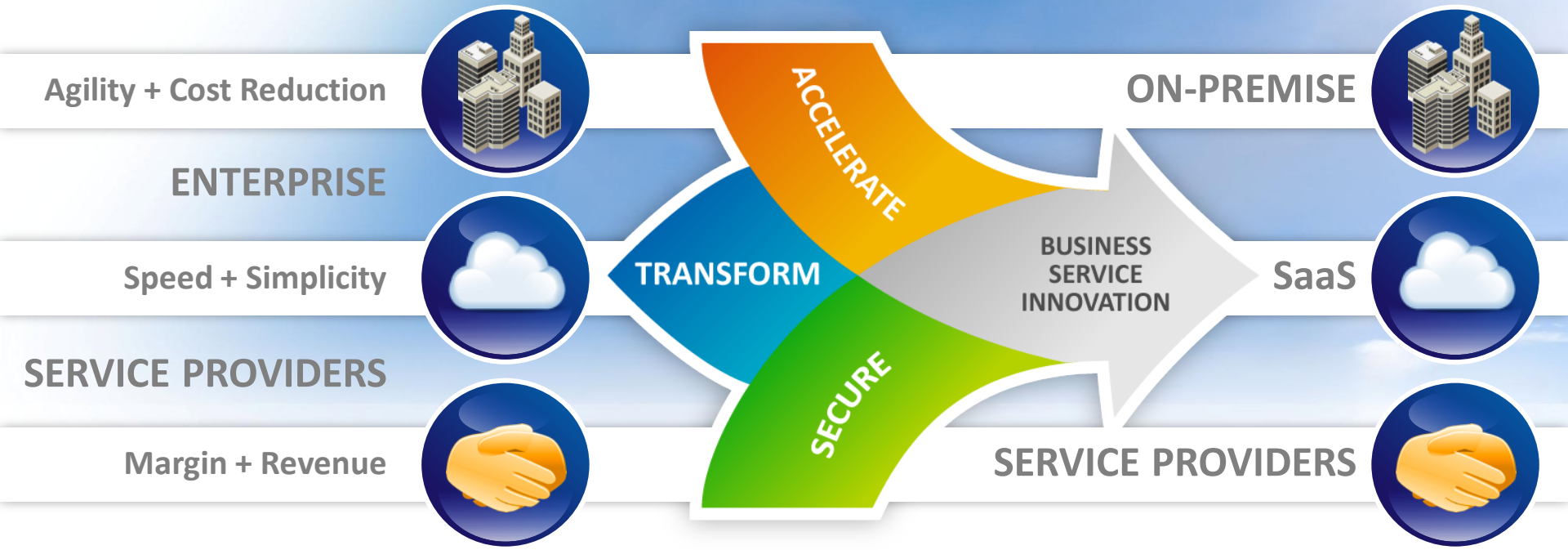
cloud as key enabler to innovation and its benefits



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the innovation mandate: everything as a service

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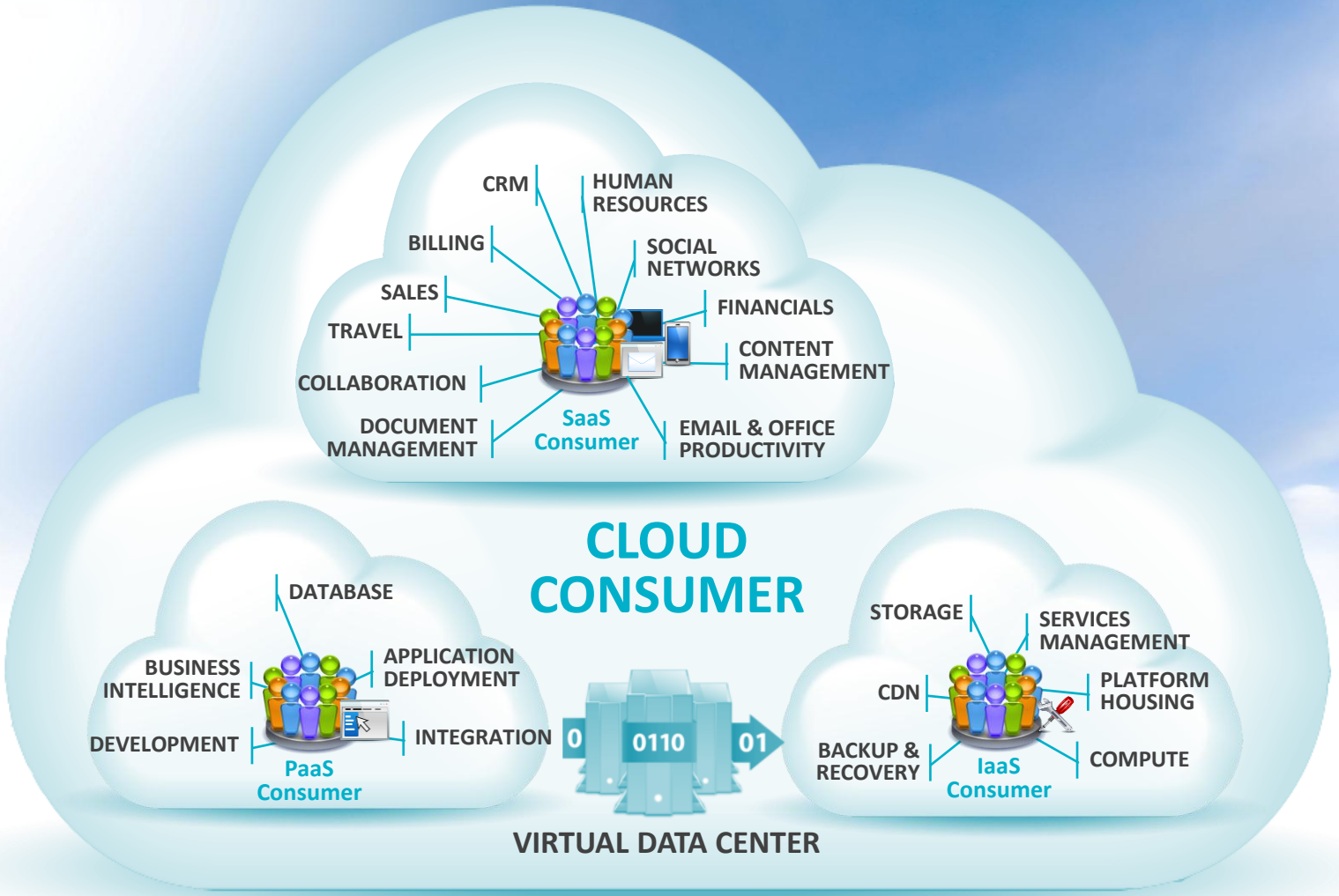
complexity of hybrid service delivery



Source: NIST Cloud Computing Reference Architecture | Version 1, March 30, 2011

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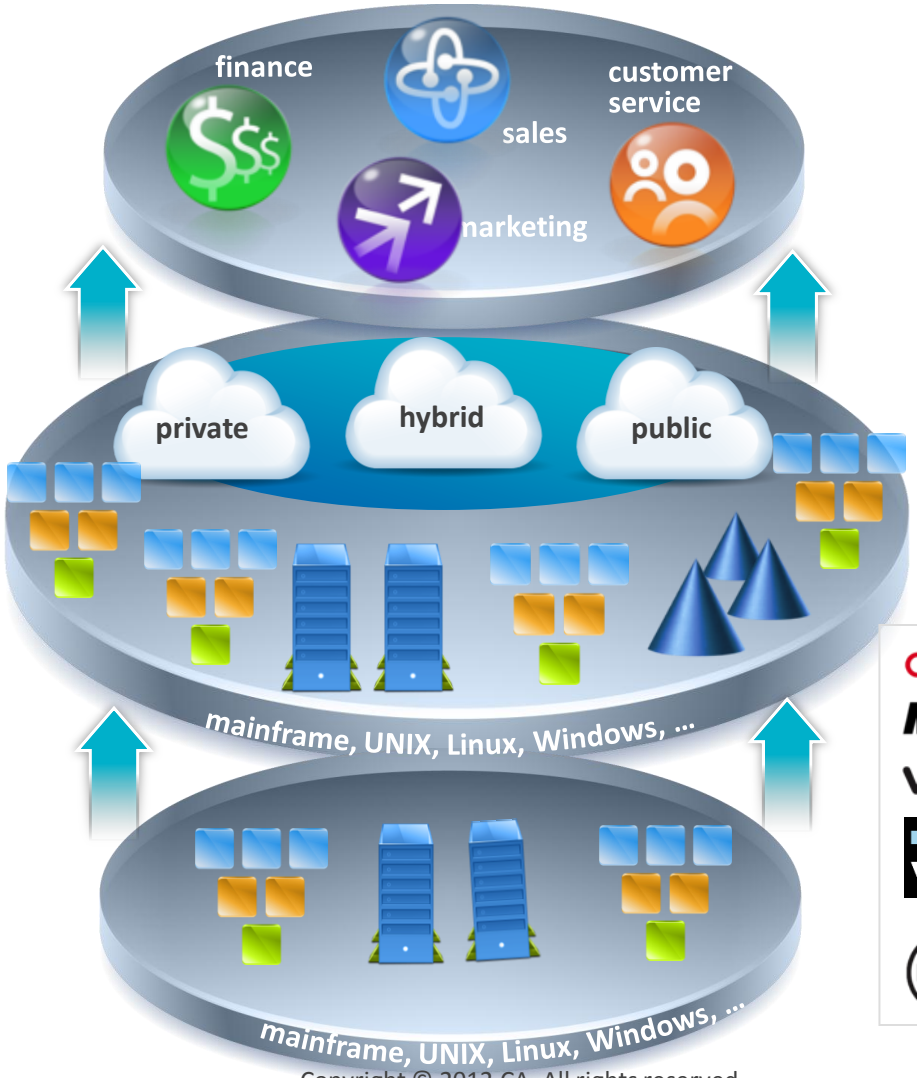
service delivery in vast heterogeneous, hybrid IT ecosystem

BUSINESS SERVICE

SERVICE DELIVERY PLATFORM

TRADITIONAL DATA CENTER



ORACLE EMC² where information lives Microsoft CITRIX vmware redhat VCE Sun ORACLE IBM DELL SAP CISCO

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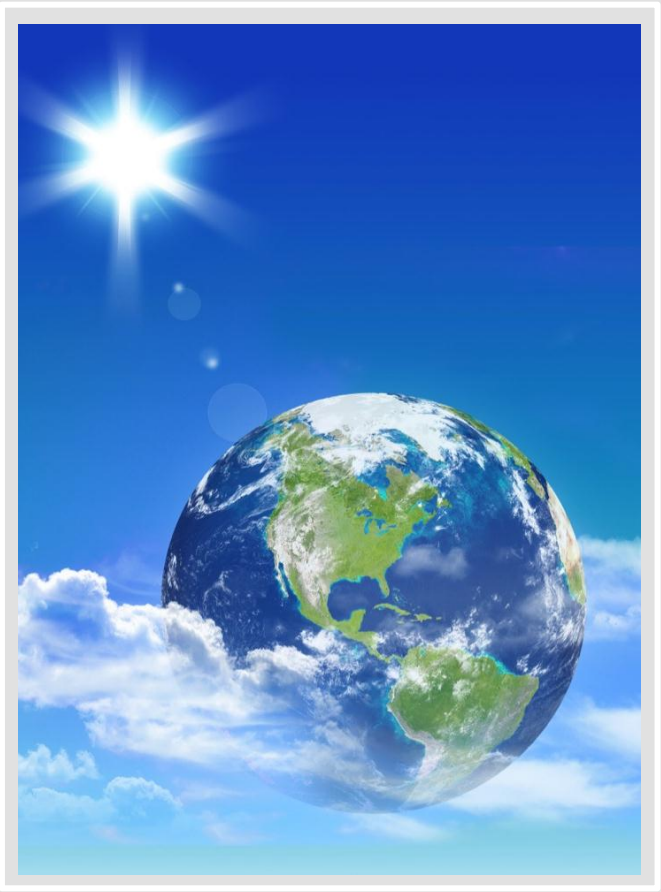
it should be simple, easy and safe to deliver innovation



Business Service Innovation can be achieved in a complex and constantly evolving technological world

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getting started:
how do you know?

CRITICAL QUESTIONS FOR TODAY'S IT STAFF

- *WHICH* apps should we host *WHERE*?
- Which services do I want to create?
- Do I have enough or too much capacity?
- Do I have transparency to services performance, cost and its value to the business?
- How do I accelerate application development and test cycle times?
- Should we buy, build or outsource?
- What about performance, security, and compliance and risks?
- What is the cost of a mistake…?

IT MUST MANAGE APPS AND SERVICES ACROSS HYBRID DELIVERY MODELS

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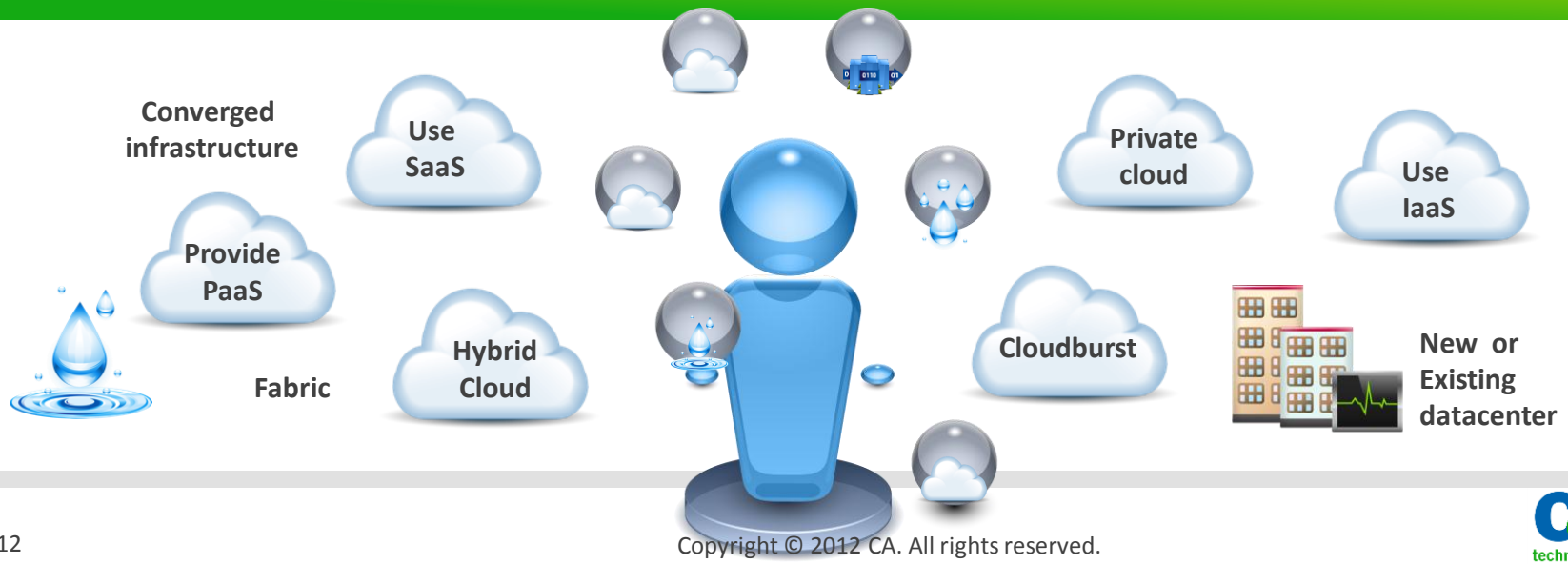
getting started: what do you need?

TO BECOME MORE AGILE, A PLATFORM IS NEEDED

- Think of cloud as a management paradigm, *not* a place or a thing
- Work across traditional silos to remodel today's applications as "business services"
- Look at products and tools that do more than just "enable the cloud" – they must "enable the transition to the cloud"
  - Does my platform protect my investments?
- Look at products and tools that work together to form a consistent platform
  - Does provisioning work with capacity planning, performance management, service assurance…?
  - Do the tools support my hardware and operating environment choices?

IT MUST MANAGE APPS AND SERVICES ACROSS HYBRID DELIVERY MODELS



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getting started: what do you need?

WHAT IS A PLATFORM?

A successful platform implementation improves flexibility and agility by reducing complexity, while supporting the reuse of existing, proven implementations

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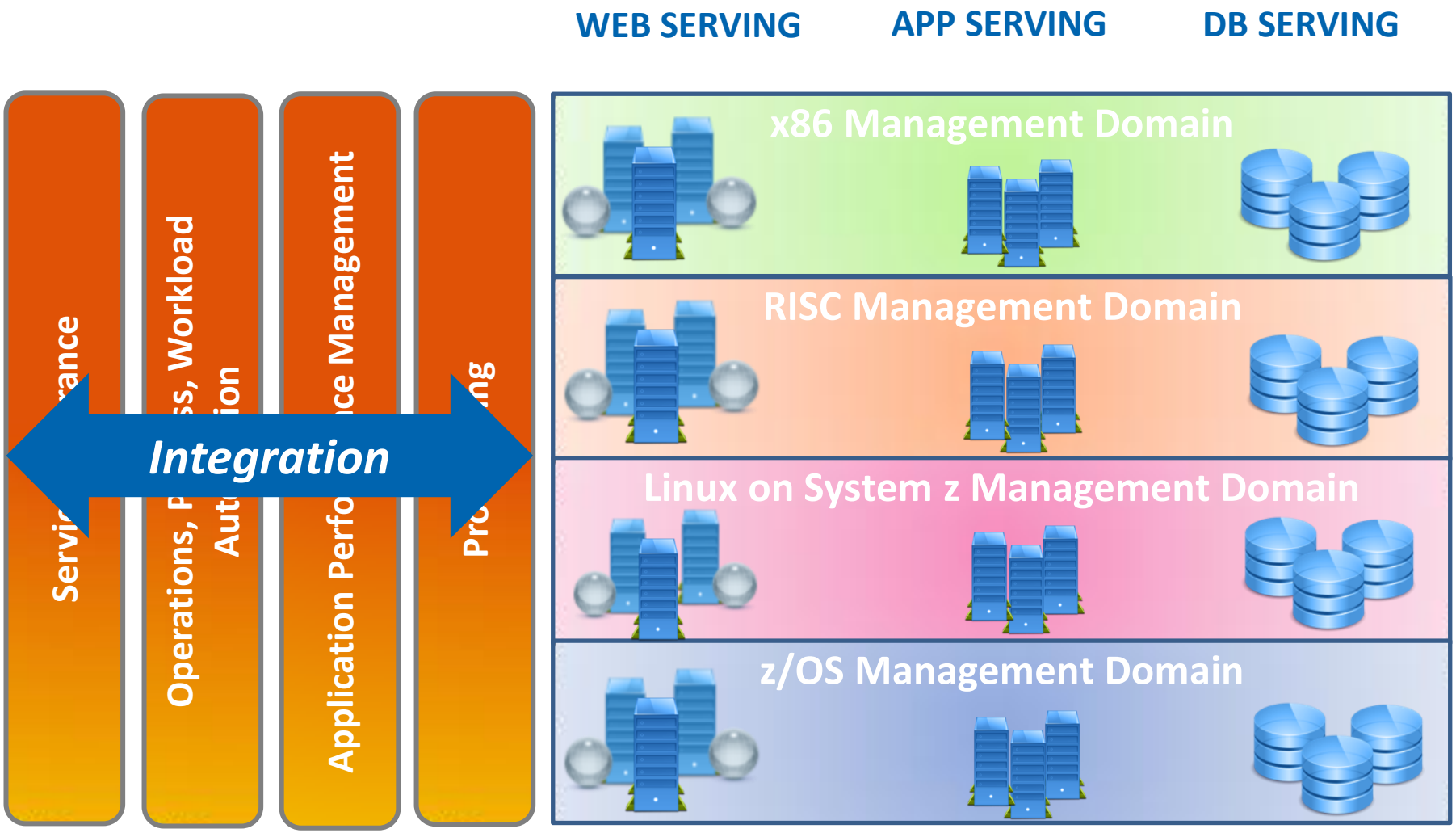
platforms can help eliminate silos



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roadmap to successfully delivering enterprise-wide IT Business Service Innovation

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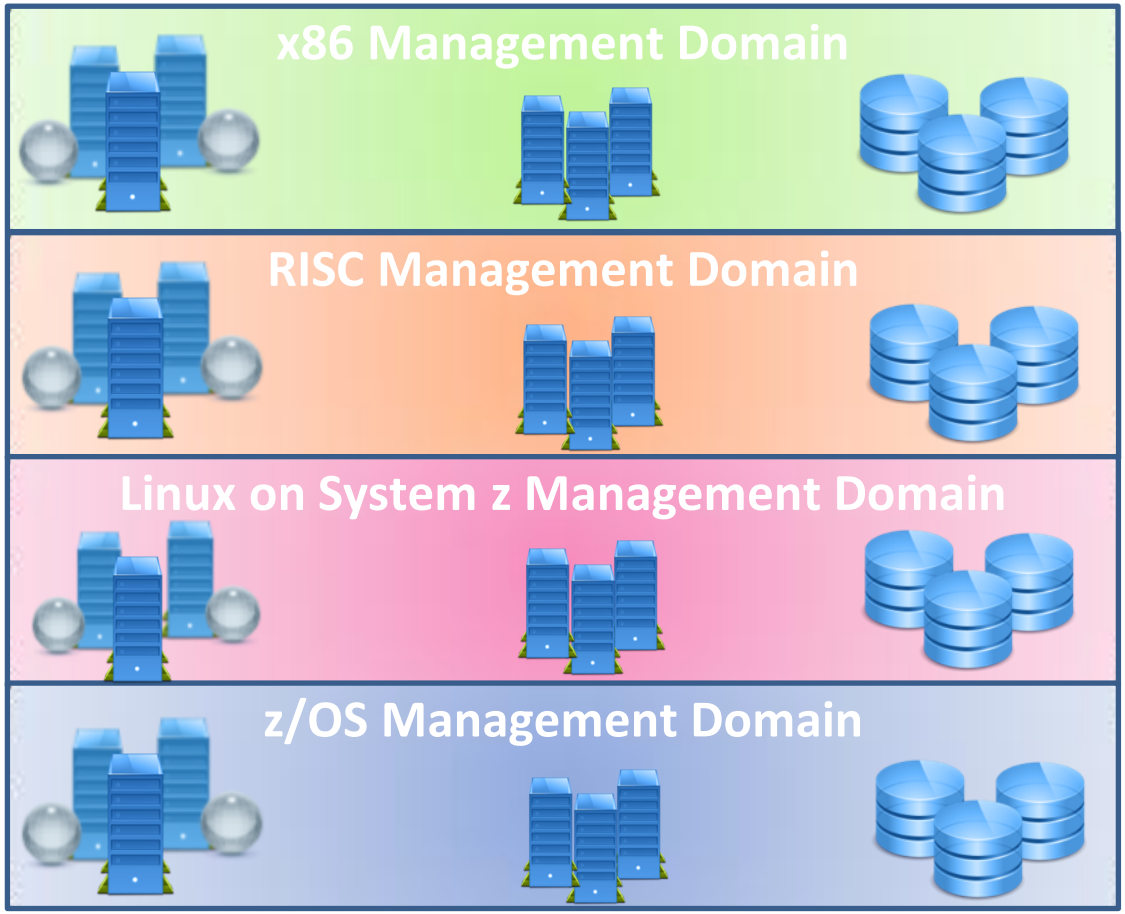
the state of the business today…platform silos

CUSTOMERS INTERNET WEB SERVING APP SERVING DB SERVING



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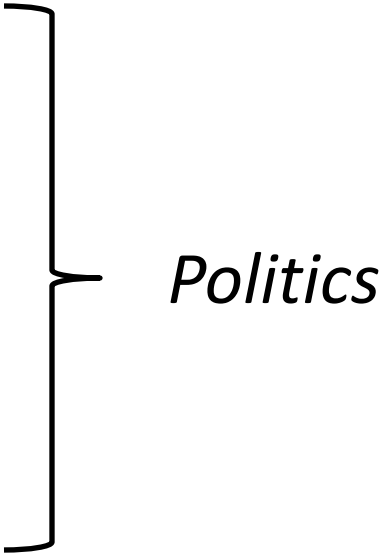
the state of the business today

- 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



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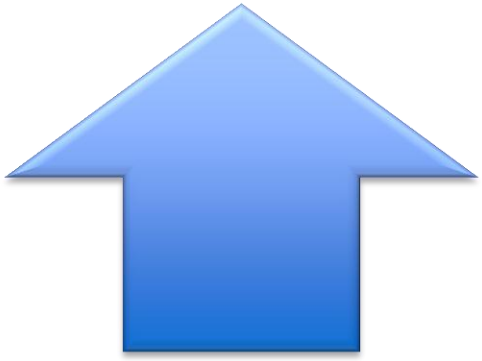
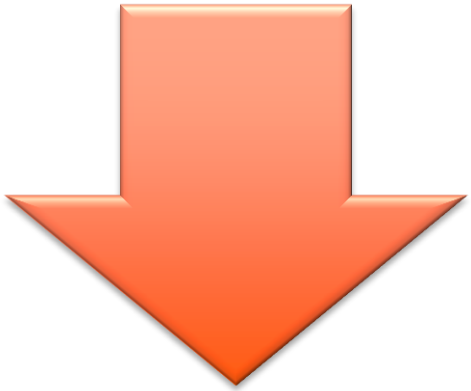
but business is focused on outcomes, not platforms



The business wants to describe a problem for IT to solve:

- Inputs
- Outputs
- Metrics & SLAs
- Cost

Application architects and developers will use whatever they have on-hand to create and deliver new value to the business



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"

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the need for a integrated Service Delivery paradigm

To further enable IT and the business to align to improve service delivery, there are a set of principles that need to be adhered to:

- Reduce the risk of "backsliding" in capability or resilience
- Existing tools need to become more "programmable"
- Combine data and capabilities that can be applied to IT services
- "ad hoc" actions need to be moved closer to the business

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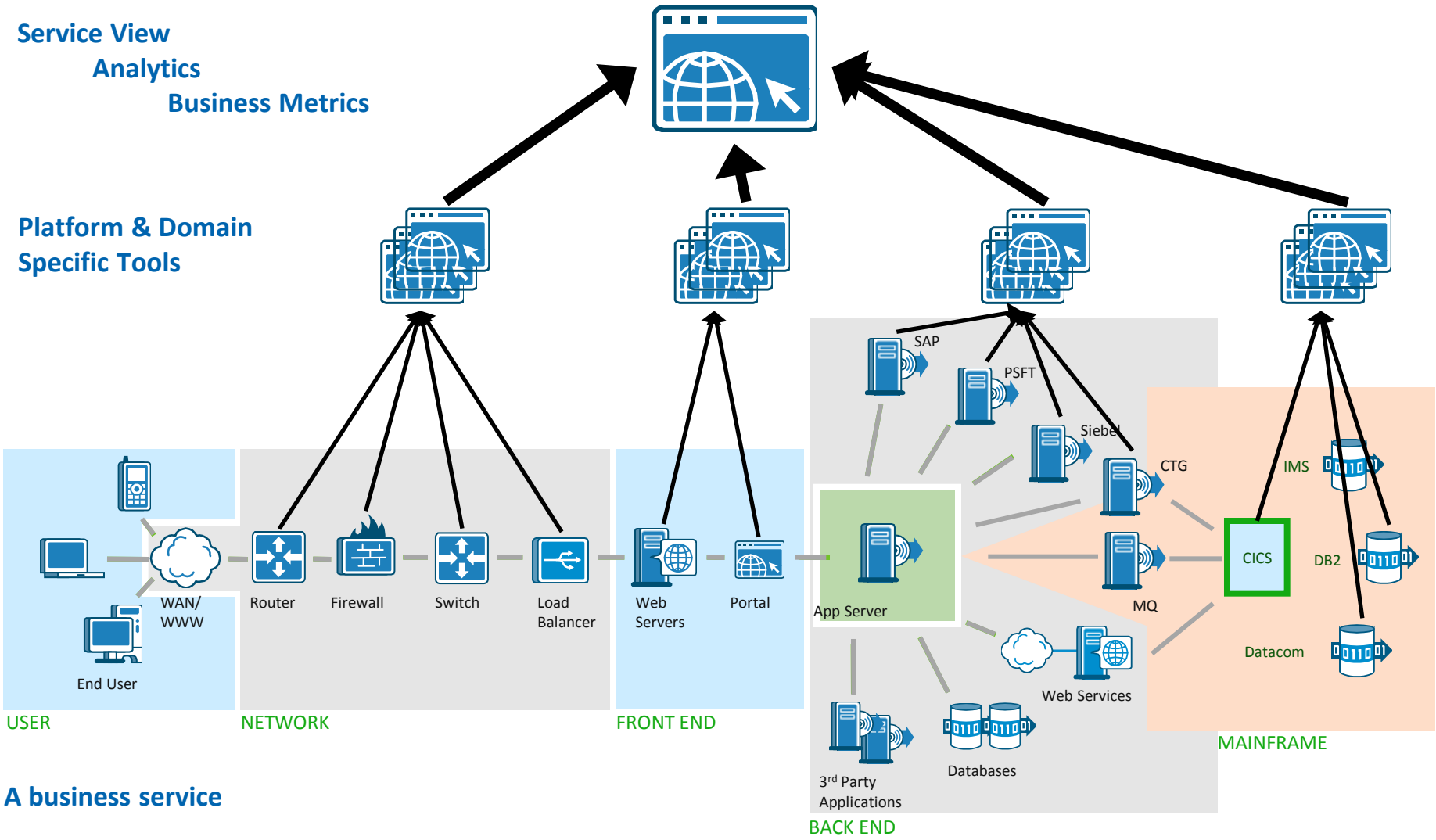
an architecture for alignment



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empower the hybrid IT workforce

The mainframe will be central to IT for the foreseeable future

Enable next-generation mainframer & hybrid IT worker

“Net Generation” thinks and works differently

Need tools and processes that unite mainframe and distributed

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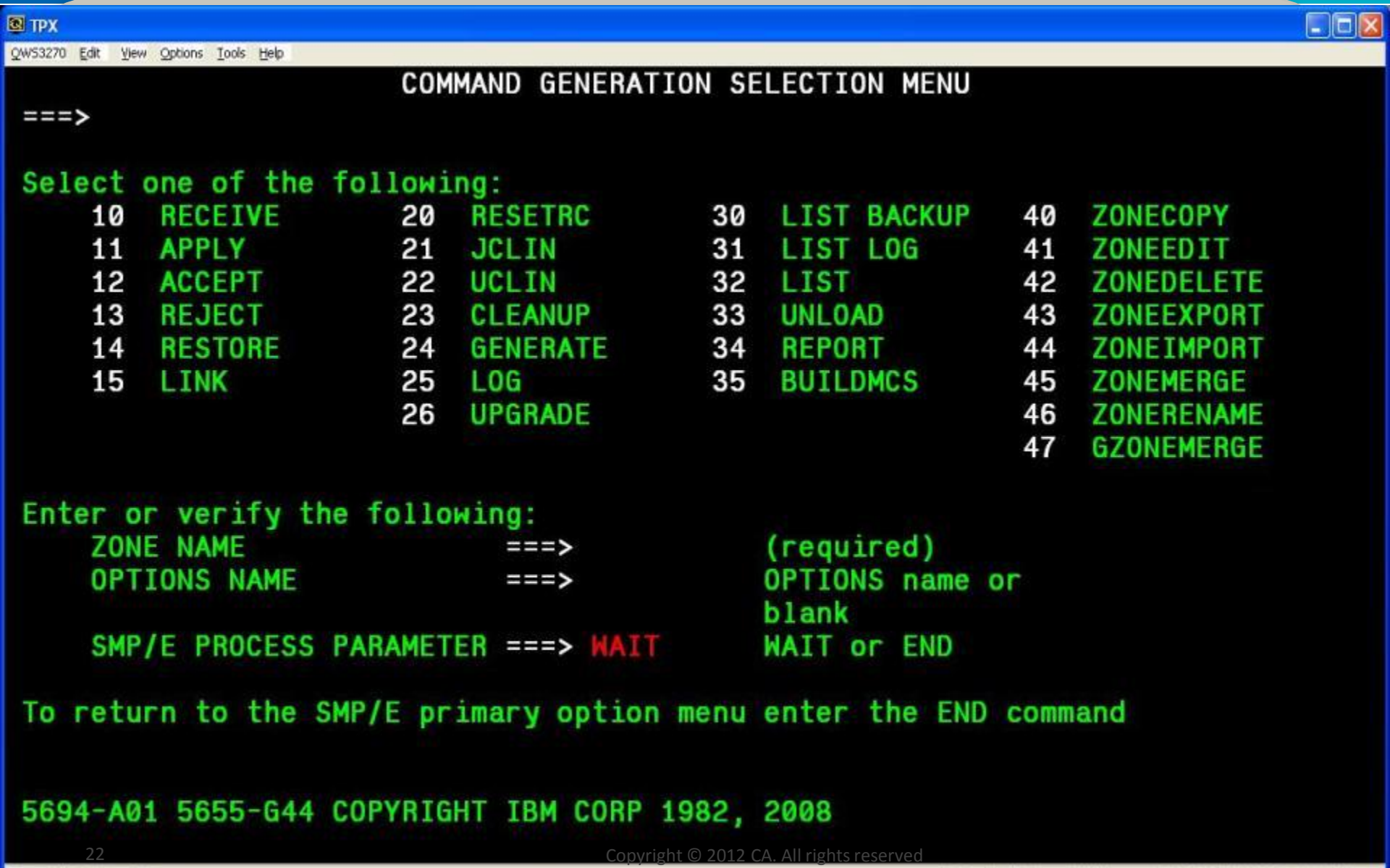
first step
simplification of the operating environment



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CA Mainframe Software Manager time savings
install

87% improvement* | **93% improvement***

Product	Expert SMP/E	Expert MSM	Change	Novice SMP/E	Novice MSM	Change
CA 1®	36 min	9 min	4X	3 hrs 12 min	14 min	14X
CA Auditor for z/OS	26 min	7 min	4X	2 hrs 22 min	8 min	18X
CA Datacom®	1hr 14 min	6 min	12X	3 hrs 8 min	10 min	19X
CA JARS	37 min	5 min	7X	1 hr 11 min	6 min	12X
CA Librarian®	28 min	2 min	14X	1 hr 13 min	6 min	12X
CA MIM™	30 min	5 min	6X	1 hr 31 min	5 min	18X
CA OPS/MVS®	36 min	6 min	6X	1 hr 50 min	7 min	16X
CA Panvalet®	54 min	3 min	18X	1 hr 11 min	5 min	14X
CA SMF Director	40 min	5 min	8X	1 hr 10 min	6 min	12X
CA SymDump® for CICS	38 min	3 min	12X	4 hrs 3 min	6 min	40X
Totals	**6 hrs 39 min**	**51 min**		**20 hrs 51 min**	**1 hr 13 min**	

8X **17X**

*Source: CA Lab test results

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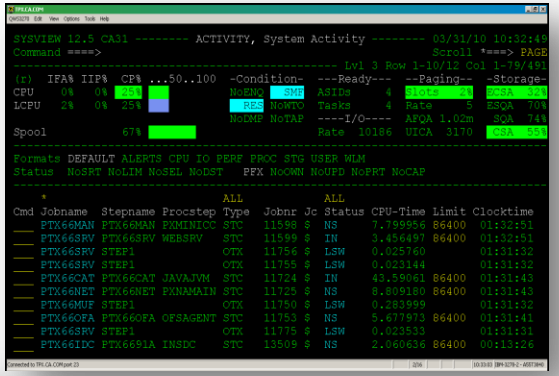
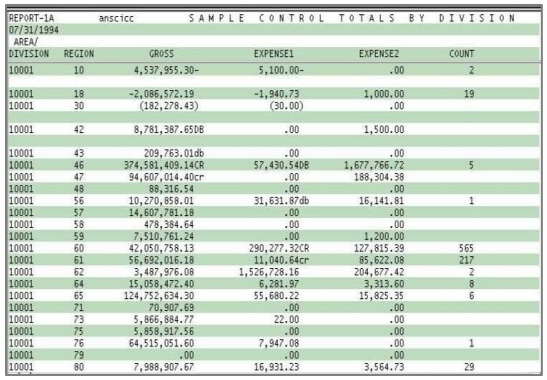
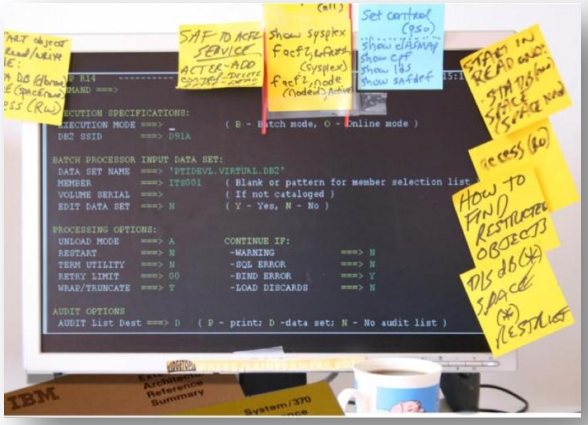
# of course….the mainframe has long been known for its…

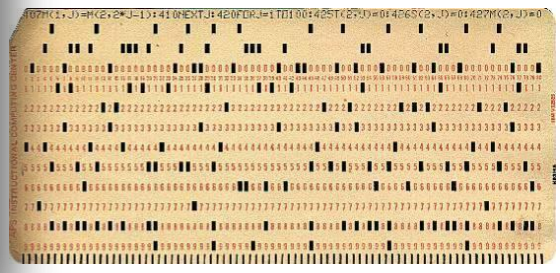
Integrated Workspace

Rich Visualization









Robust Reporting

Knowledge & Collaboration

Process Automation

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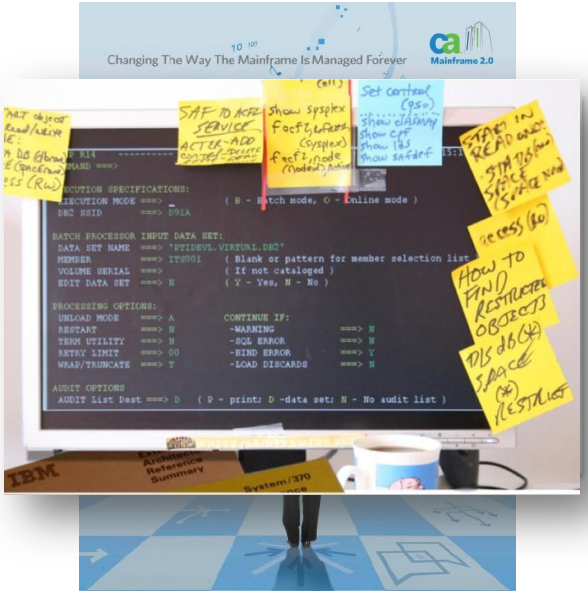
Next-Generation Mainframe Management

Integrated Workspace

Rich Visualization



Robust Reporting

Knowledge & Collaboration

Process Automation

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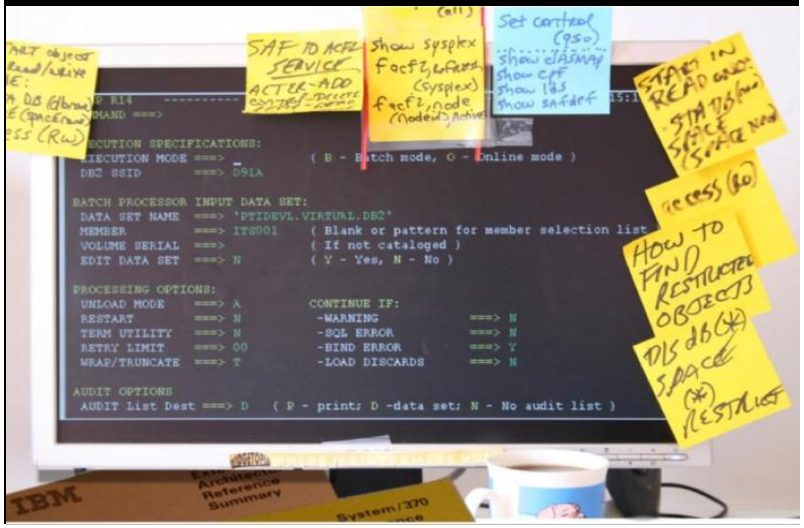
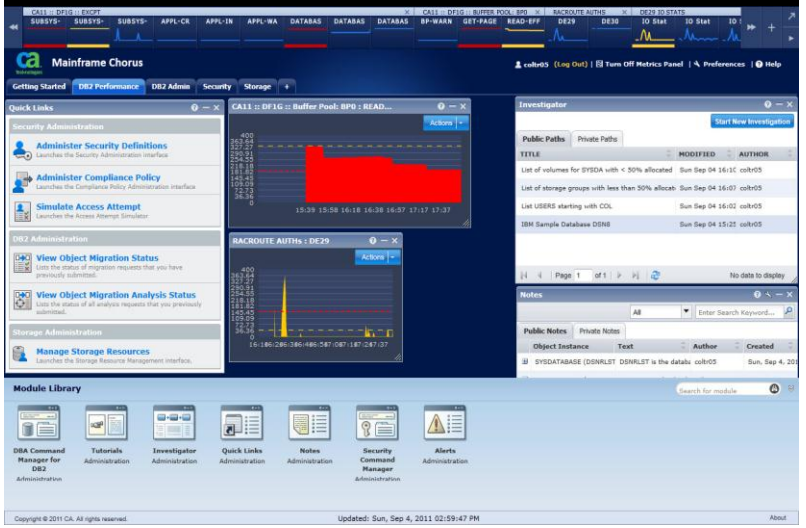
CA Mainframe Chorus
Enhancing Mainframe Productivity

No more "same old thing…."



CA Chorus Changes Everything



A new and fundamentally different user interaction model

- Based on **how people do their jobs**, *not how they use specific products*
- Provides rich features and data visualization in a web-based workspace
- Not just a bunch of disconnected GUIs
  - True integration of products, process, and data

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next: monitoring the enterprise

- Current 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

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proactive management across the enterprise
monitoring the mainframe, distributed, and cloud

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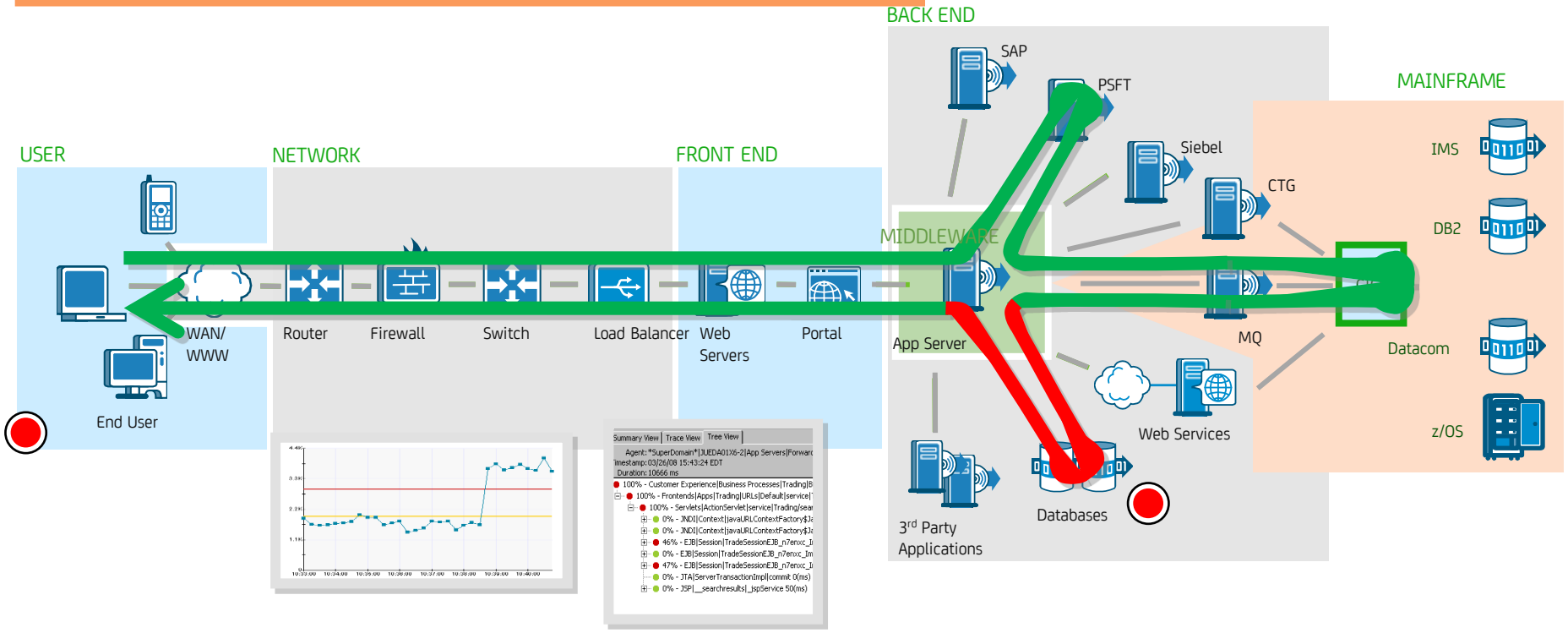

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then…..automating the enterprise

- 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

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automating the enterprise

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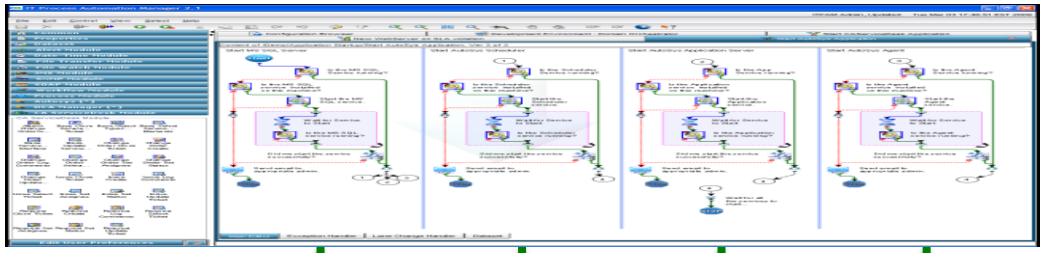
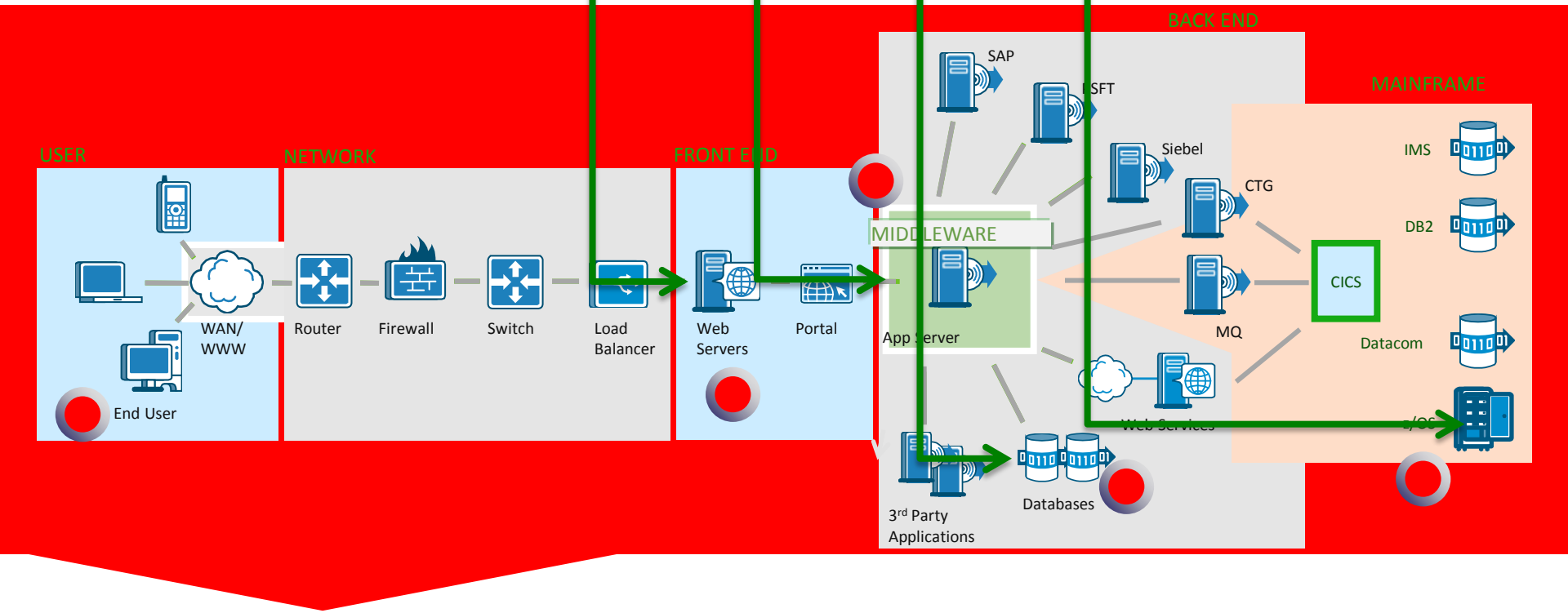
automating the enterprise
CA Process Automation





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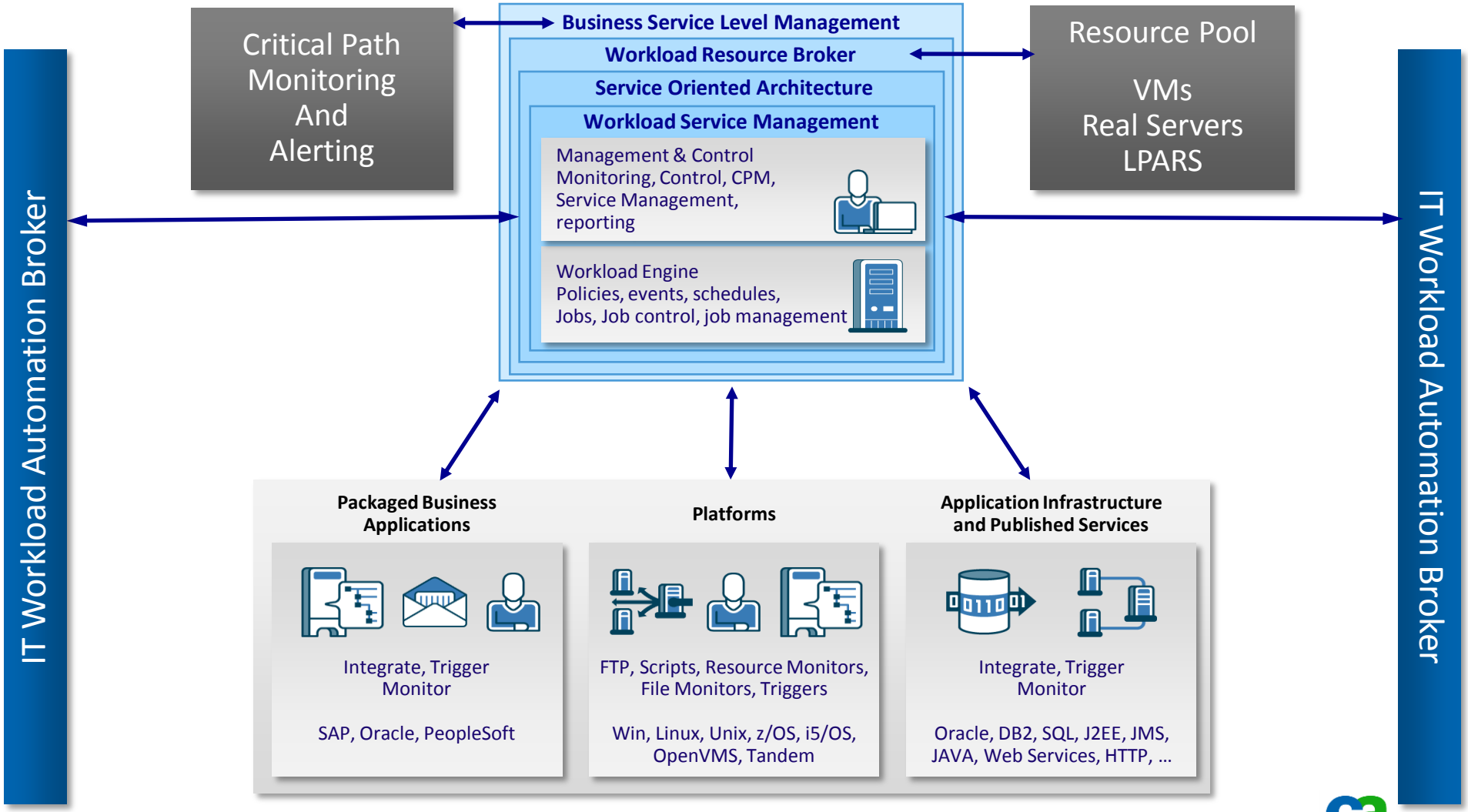
cross-enterprise workload automation remains critical

must continue to integrate with monitoring and other automation



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what is needed…

- Cross-enterprise integration
- Cross-enterprise visibility
- Cross-enterprise reach
- Logically link “business processes” with “system automation”
- Logically link events to automation
- Accomplish this with tools that anyone can use with roles/security limiting managerial scope

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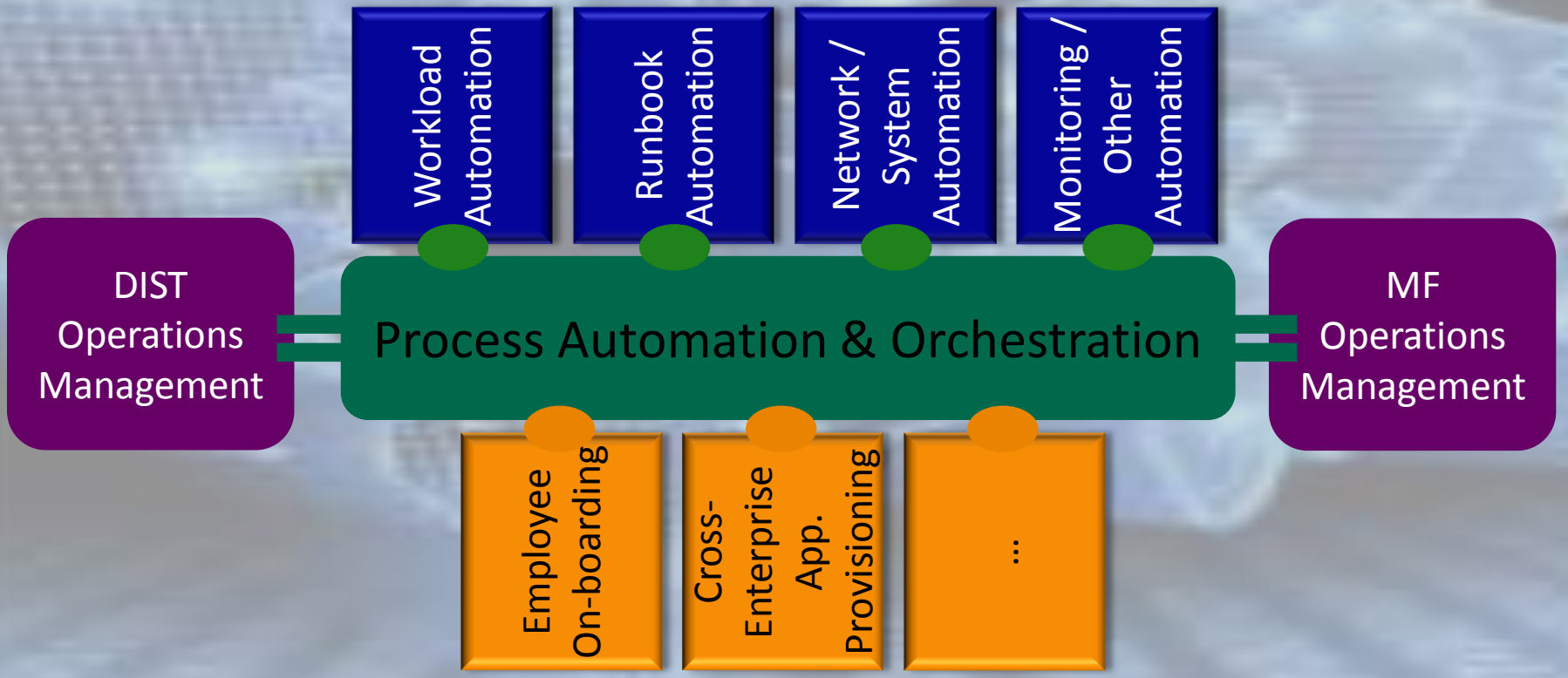
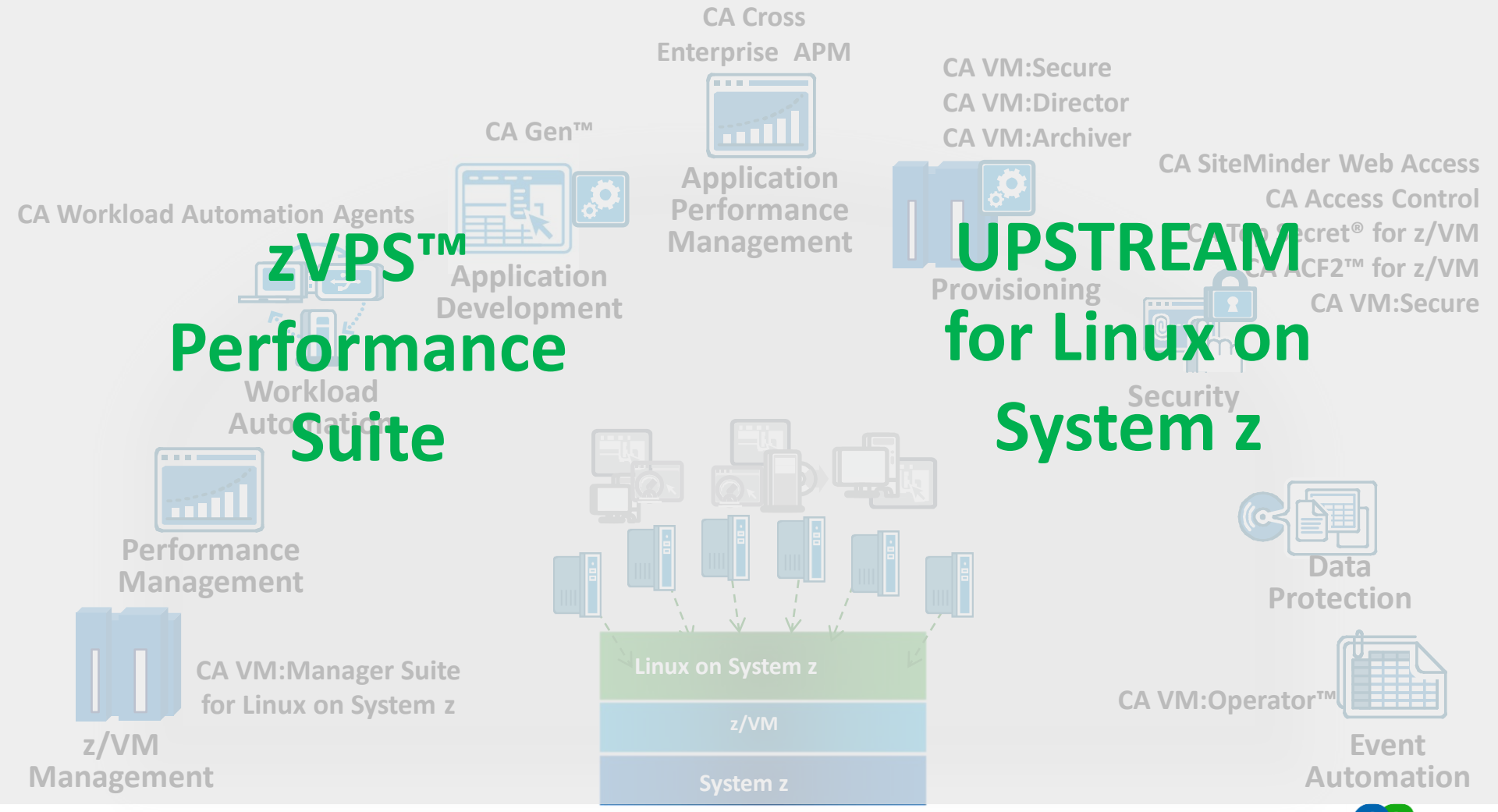
One automation to “bind” them all…



Consolidate to Linux on System z
the CA solution portfolio



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provisioning for the enterprise
extending CA AppLogic to support System z

- Quickly provision, deploy and manage cloud applications on System z as part of a hybrid cloud computing infrastructure
- A single System z196 server will be able to host dozens of AppLogic grids, each with hundreds or thousands of virtual appliances
- Energy efficiency - single System z196 server can host thousands of Linux on System z applications, effectively replacing the need for hundreds of distributed servers and their required network fabric
- Easy connectivity to z/OS resident application and database servers
- System z cloud deployment combines cost reduction and agility with massive scalability and reliability

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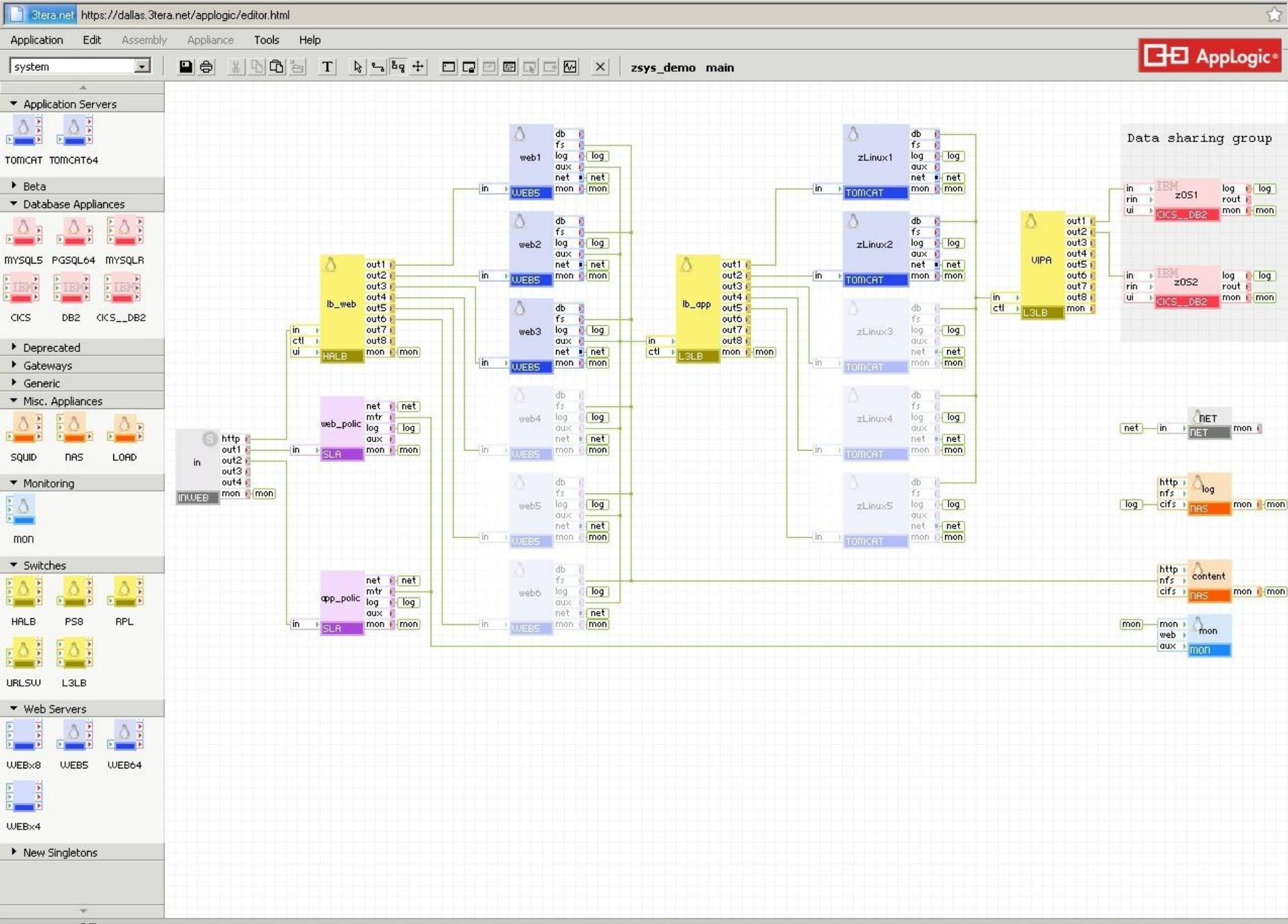

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your IT challenge….are you ready?

Enable innovation while managing complexity, controlling cost and mitigating risk

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Questions?

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Thank You

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