

# Managing the Mainframe: The Ultimate Private Cloud

**CA 3Tera AppLogic**

**CA VM:Manager Suite for Linux on System z**

Presenter: Vince Re



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# The Mainframe and The Distributed Cloud

- Mainframers have been using virtual machines, time-sharing, and managing multi-tenancy systems for years.
- But how does the Mainframe fit into the Cloud?
  - Manage the deployment of a composite application - one that spans multiple platforms
  - Employ the same resources to build multi-tiered applications for distributed and mainframe (using the same tools)
  - Reduce costs and time to roll out new, scalable, elastic applications on the mainframe by unifying deployment teams
  - Standardize workloads, maximize re-use of application components
  - Increase speed of provisioning applications that run on Linux on System z or span platforms
  - Allow movement of Linux-compatible workloads between distributed and zEnterprise environments

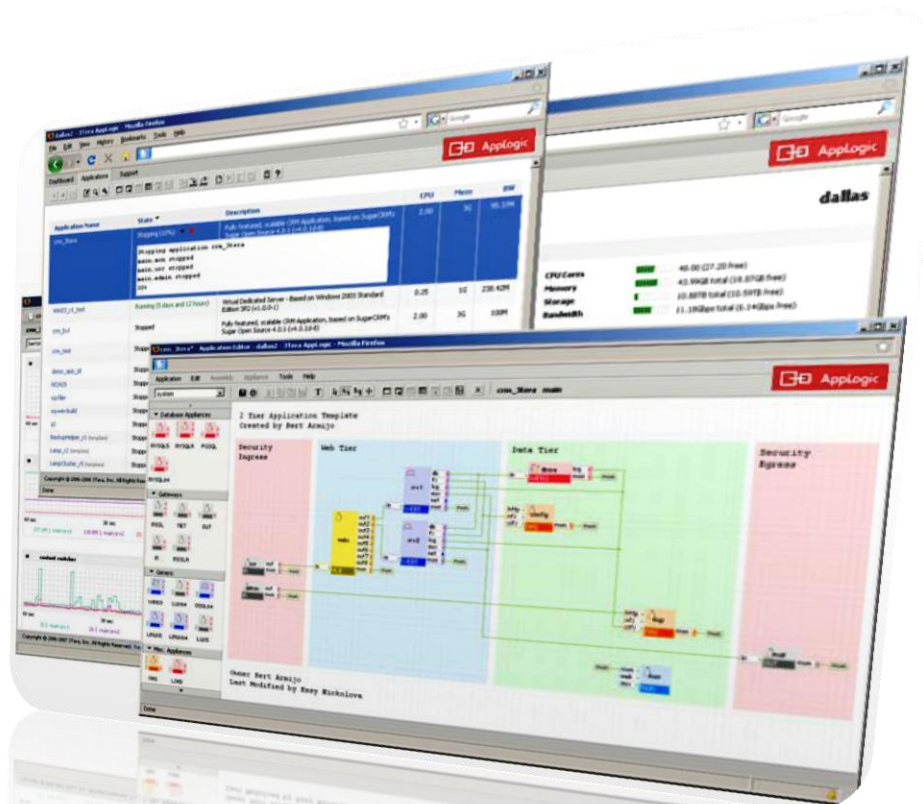


Scalability, Virtualization, Elasticity, On-demand Provisioning,  
Multi-tenancy, SLA Management, Charge-back and Billing

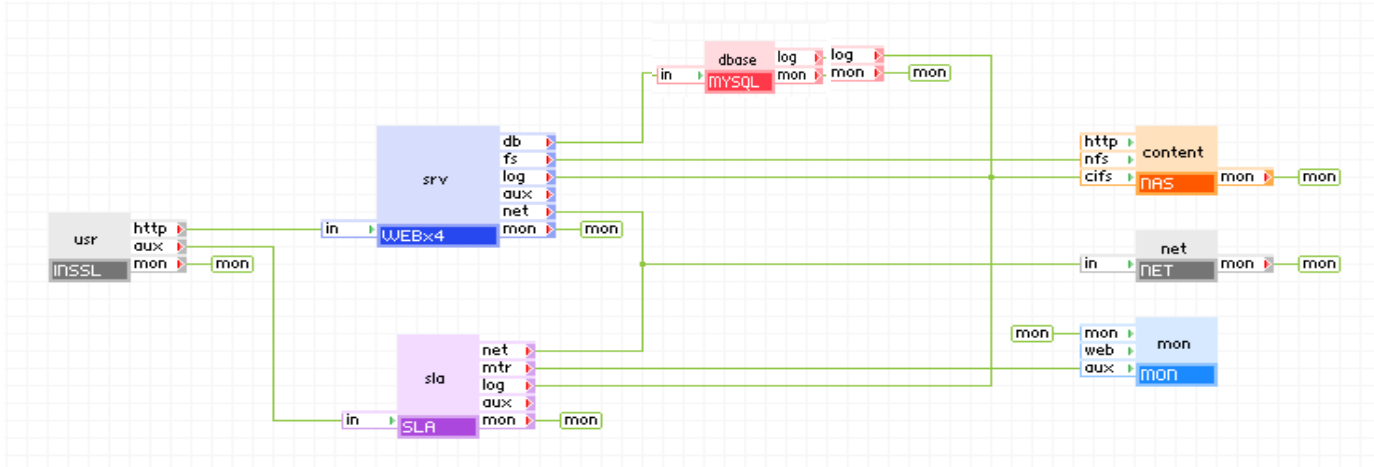


# CA 3Tera AppLogic what is it?

CA 3Tera® AppLogic® is a turnkey cloud computing platform that enables enterprise customers to quickly provision, deploy, and manage cloud applications and supporting infrastructure.

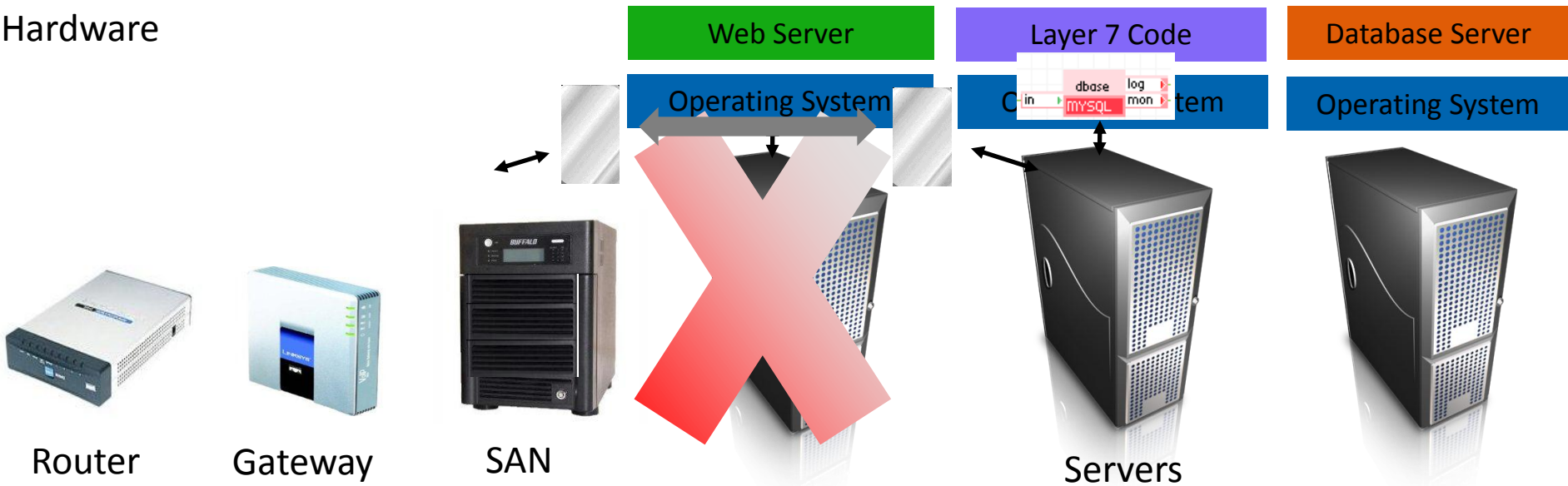


# CA 3Tera AppLogic how does it work?



Software

Hardware



Router

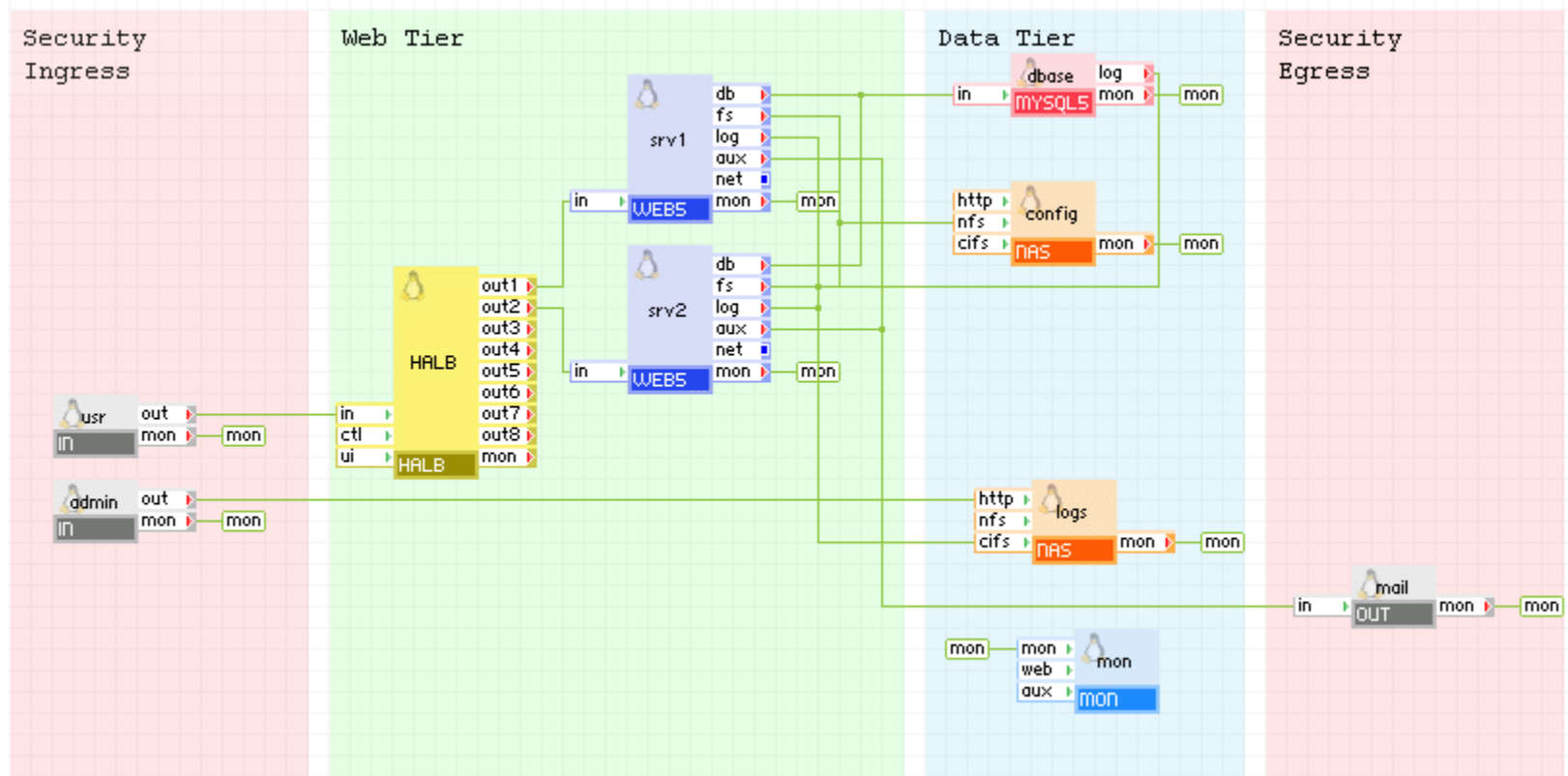
Gateway

SAN

Servers



# CA 3Tera AppLogic more than virtualization



# In the Virtual Data Center...

The screenshot displays the AppLogic editor interface. On the left, a catalog of virtual appliances is organized into several categories:

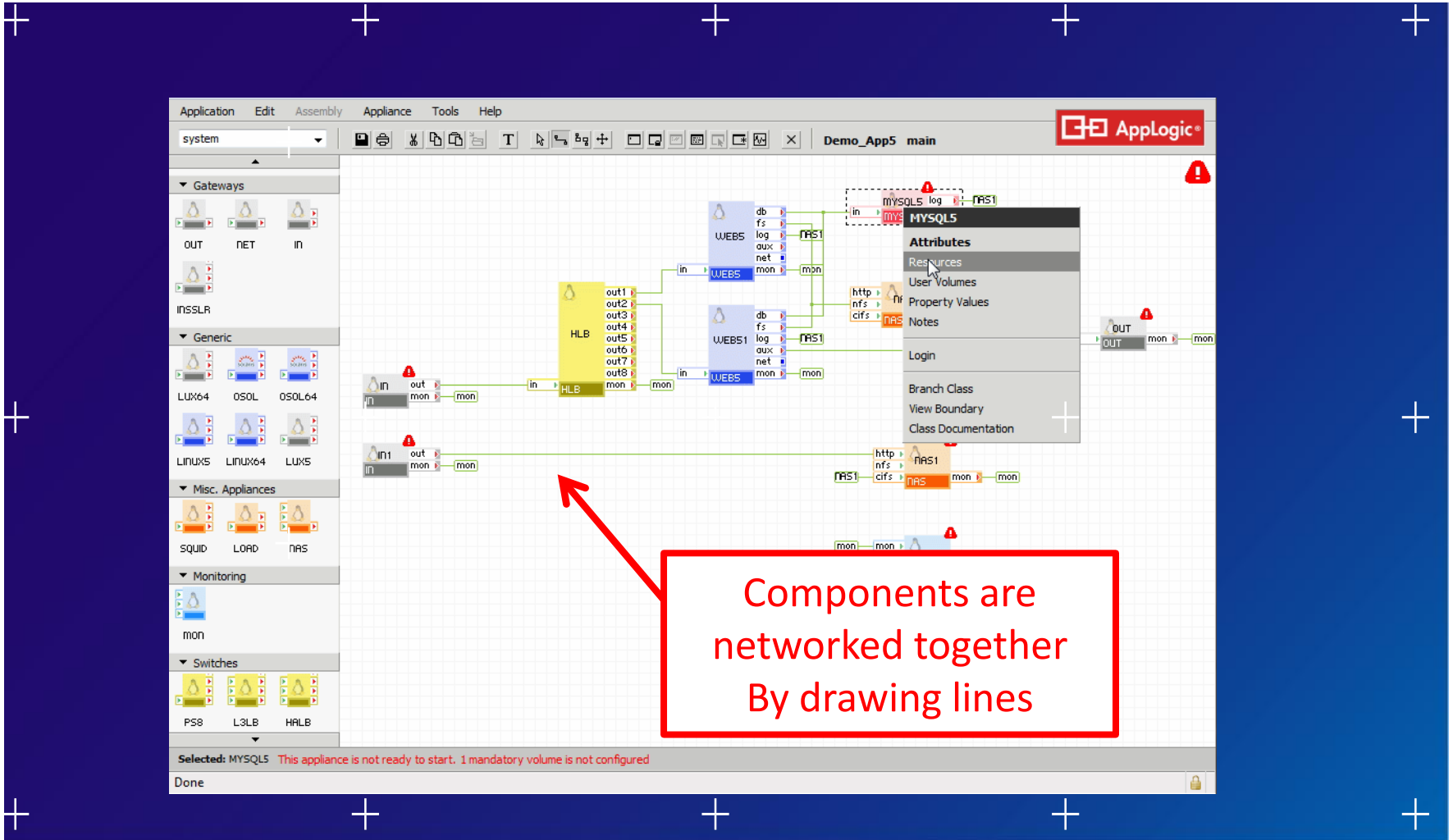
- Application Servers:** TOMCAT, TOMCAT64
- Beta:** IN2, NRSR, VPN, NET2, OUT2
- Database Appliances:** MYSQL5, PGSQL64, MYSQL64
- Deprecated:** MYSQLR, PGSQL, MYSQL64, WEB4, INSSL, HLB
- Gateways:** OUT, NET, IN

The main workspace shows a diagram of a network topology. A yellow box labeled "HLB" (High Load Balancer) is selected, with its ports (out1 through out8) visible. A red box highlights the catalog of virtual appliances, with a red arrow pointing from it to the HLB component in the diagram.

Selected: HLB  
Done



# Create networking, configure components...



Components are networked together  
By drawing lines

# Provide Resources to Components...

Application Edit Assembly Appliance Tools Help

system Demo\_App5 main AppLogic

MYSQL5 - Instance Settings - 3Tera AppLogic - Mozilla Firefox

3Tera.net https://skyler.3tera.net/applogic/instance\_editor.html

Attributes Resources User Volumes Property Values Notes

	Min	Max	Default
CPU (num)	0.10	16	0.40
Memory (bytes)	128M	32G	512M
Bandwidth (bits/sec)	1M	2G	250M

Reset All

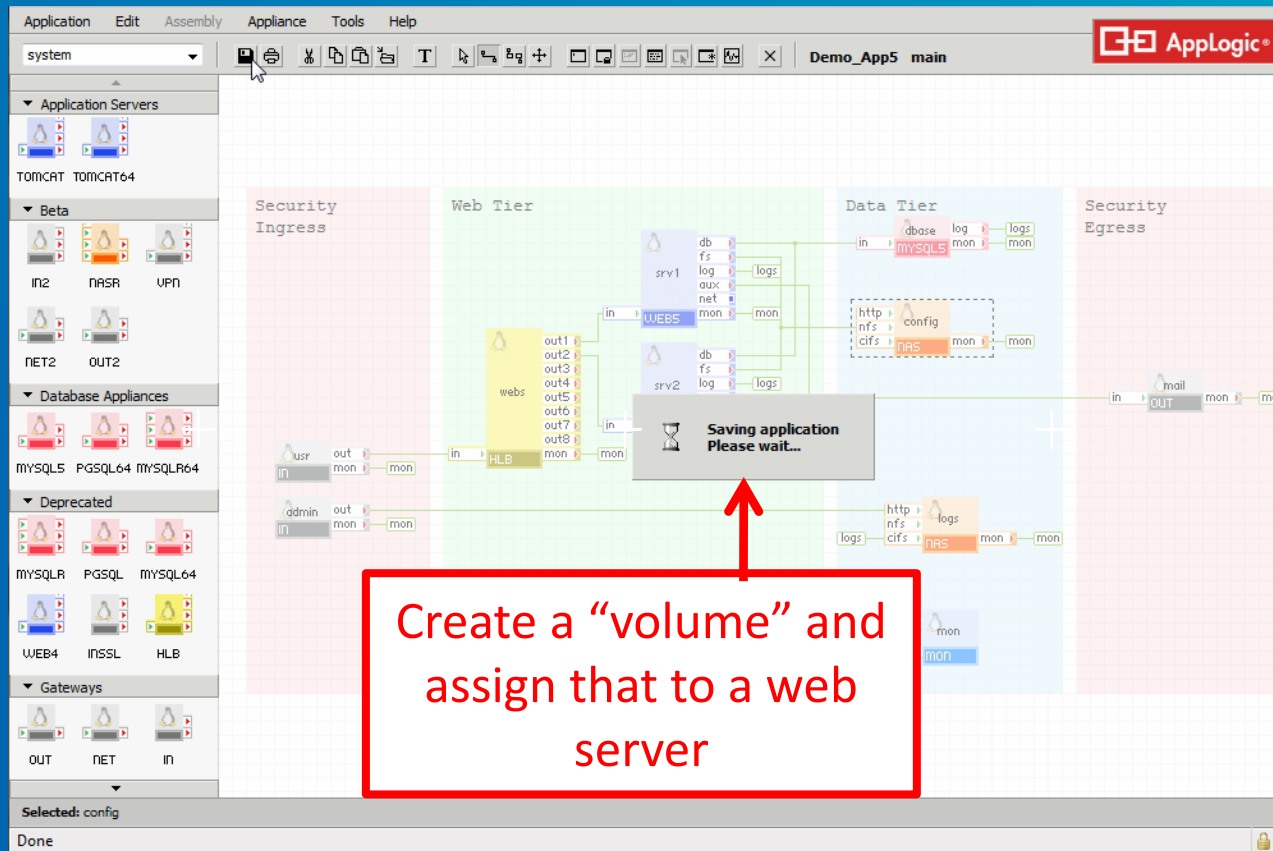
OK Cancel Done

Assign memory, CPU, bandwidth & other resources

Selected: MYSQL5 This appliance is not ready to start because its dependencies are not complete.

Done

# Create a Volume...



Create a "volume" and assign that to a web server

# A Virtual Business Service is Created!

Dashboard Applications Support

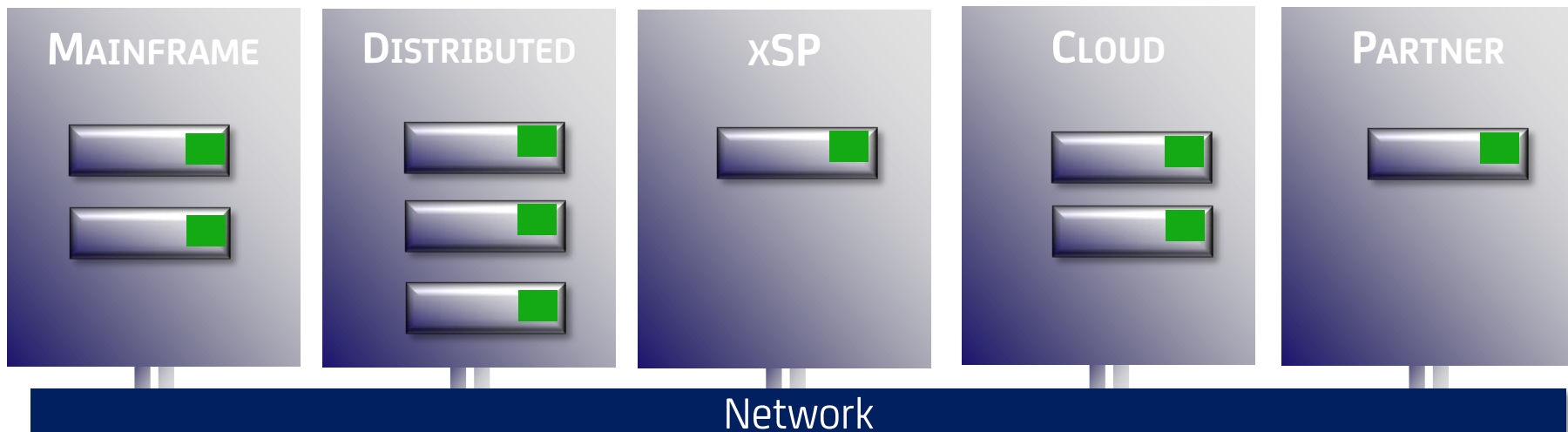
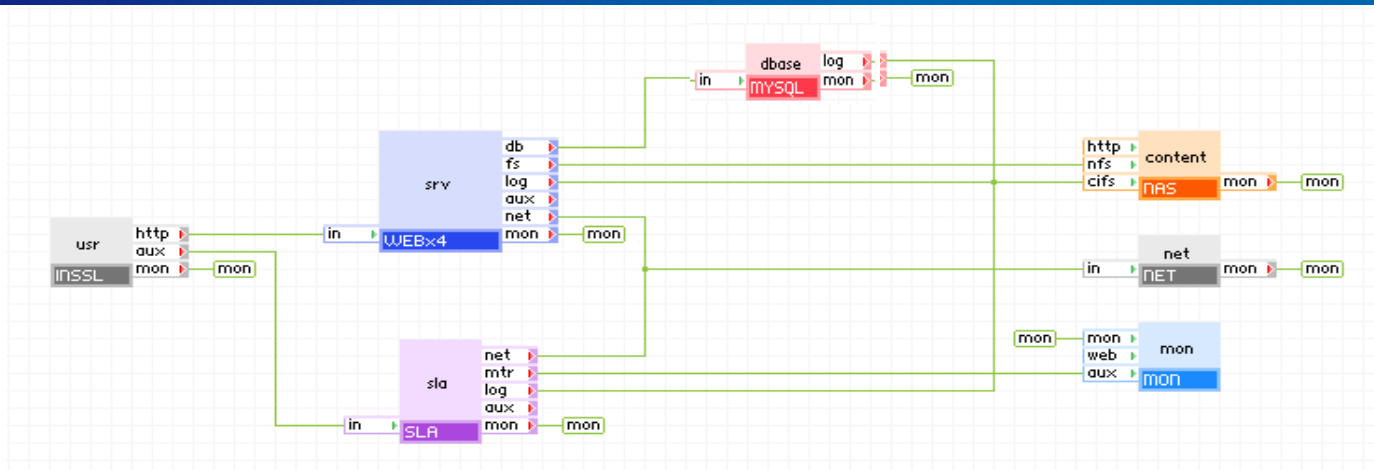
Applogic®

Application Name	Status	Description	CPU	Memory	Disk
Accounting_dept	Stopped				
blog-01	S				
centos51_install	S				
centos51_install2	S				
centos51_install3_backup	S				
cPanel_Customer 1	S				
cPanel_customer 1	S				
cPanel_Customer3	S				
cPanel_Customer5	S				
CRM_Demo	S				
Demo_App	S				
Demo_App5	S				
Dev_Customer 10	S				
DotNet_Customer5	S				
hvm2pv_centos51_install2_16506	Stopped				
sfgov2_Dallas	Stopped				
Solaris_Customer 4	Stopped	Solaris server used by Marketing department for testing for Customer 4	1.00	1.00G	250.00M

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Once the application – or “Virtualized business service” – is started - we can open it up and log into one of the components where we are able to set up alarm monitoring

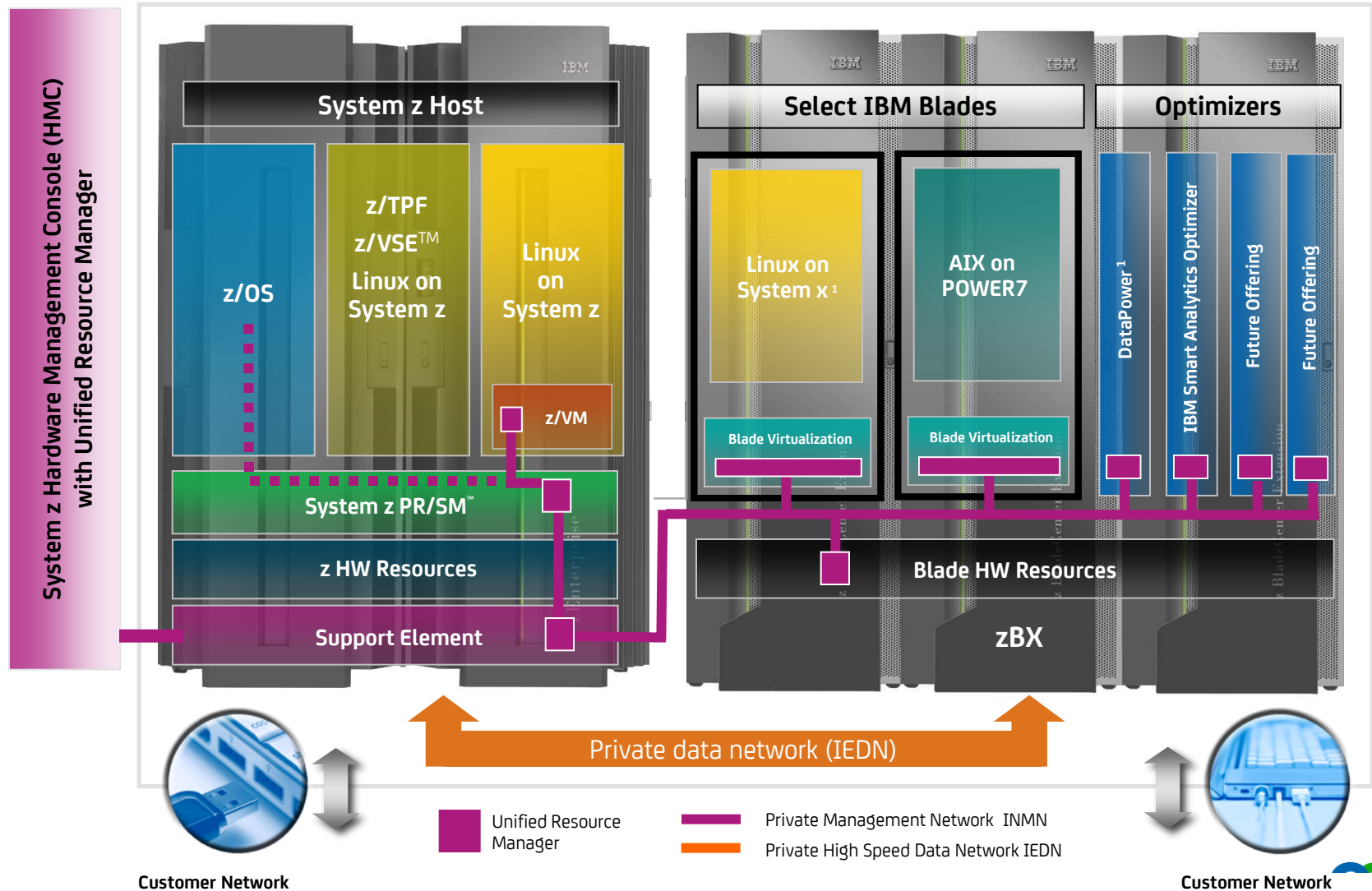
# Allow movement of Linux-compatible workloads between distributed and zEnterprise environments



## OPEN DEMO

# A look inside the IBM zEnterprise System

Enabling a new dimension in application architecture



<sup>1</sup> All statements regarding IBM future direction and intent are subject to change or withdrawal without notice, and represents goals and objectives only.

# Your Thoughts?

- Can you see these use cases as a reality in your business today?
  - Manage the deployment of a composite application - one that spans multiple platforms
  - Employ the same resources to build multi-tiered applications for distributed and mainframe (using the same tools)
  - Reduce costs and time to roll out new, scalable, elastic applications on the mainframe by unifying deployment teams
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# Thank You!



# discussion points

- Are you utilizing Linux on System z in a significant way?
- Are you looking to consolidate Linux based applications to the mainframe?
- Will this solution help you realize your Cloud strategy? If so, in what way?
- Is it important that our solution span applications that have components running on the mainframe as well as distributed servers? Does it need to be mainframe hosted?
- Are there any other similar solutions you are looking at or aware of?
- What in the solution appears to be of most value to you?
  - Helping you move applications and workload to the mainframe?
  - Distributing workload to the most appropriate server?
  - What are the critical features/functions it must have in the first release?
  - What are the ROI criteria for you? Will this be a time saving tool?