

CA AppLogic® for System z

12487: Using AppLogic for System z to Leverage Your Mainframe in the Private Cloud

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agility
made possible™



agenda

- Who is this session for?
- High-level product overview
- What's the business problem we are solving?
- Product deep-dive and use case
- Product benefits
- AppLogic and the System z ecosystem



Who cares?

- Forced to do more with less?
- Under pressure to increase speed through the application life cycle?
- Want control over what software is running in your environment?
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- Using Linux on System z and need help to deploy and manage?
- Ready to roll out Linux on System z and need more efficient tool?
- Managed Service Provider looking to increase profits?
- Competitors who wish their products were this cool?

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CA AppLogic® – what is it?



AppLogic – It's all about Linux on System z Applications

Design
Provision
Assign resources
Manage components
De-commission

The image displays three overlapping screenshots of the CA AppLogic web interface. The top-right window, titled 'web64 - Instance Settings - CA 3Tera AppLogic - Google Chrome', shows the 'Resources' tab with a table of resource allocation:

	Min	Max	Default
CPU (num)	0.10	16	0.30
Memory (bytes)	160M	32G	512M
Bandwidth (bits/sec)	1M	2G	250M

The bottom-right window, titled 'AMC_CustomerDemo* - Application Editor - Grid25 - CA 3Tera AppLogic - Google Chrome', shows a network diagram with components like 'Application Servers', 'Database Appliances', and 'Gateways' connected in a Public Zone, Application Zone, and Data Zone.

The bottom-left window, titled 'Grid1 - CA 3Tera AppLogic', shows a list of applications with their states:

Application Name	State
Lamp_r17 (template)	Stopped
Sys_Filer_Linux (template)	Stopped
VD564_CentOS62_r1 (template)	Stopped
WS_API_r1 (template)	Stopped
WS_API_SAMPLE_r1 (template)	Stopped
zOS_SvcPt_Admin_r1 (template)	Stopped
CustomerDemo1	Stopped
LMCO_Demo	Stopped
PartnerDemo0123	Stopped
vd01	Stopped

“Without AppLogic, I have to have a golden image, it has to have a public IP address. I have to create the user directory, copy the minidisks, set up vswitch authorization, run it, configure networking and passwords, and if I forget an important step I have to debug and iterate. That is if I have a golden image. If I don't, I have to install the thing from scratch which takes hours.”, Beta Tester

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is this the cloud?



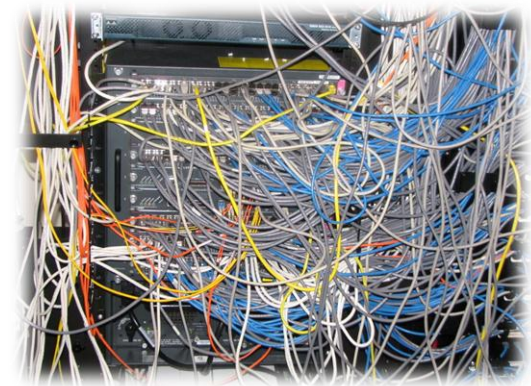
If you want...



why Linux on System z?

Highly available , cost effective, scalable, secure and agile

- A system zEC12 or z196 can hosts dozens of AppLogic grids, each with hundreds or thousands of virtual appliances
- Replace hundreds of power hogging distributed servers and their associated network fabric.
- Reduction of software license and hardware acquisition costs.
- Easy and efficient connectivity to z/OS resident application and database servers.
- OOTB Mainframe capabilities: highly available, extremely secure, robust and scalable.



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sample application: Call Center Information System

Public facing, web based application: aggregates CICS data

Browser Interface

Firewall

Load Balancer

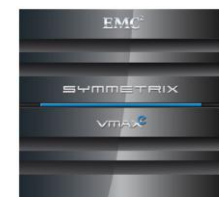
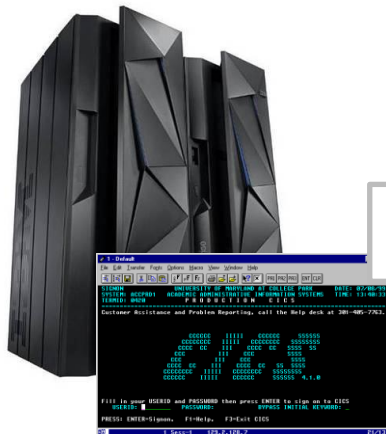
Web Servers and App Servers

Storage

Lots of cabling



...and operations staff!



using AppLogic® for System z

Browser Interface

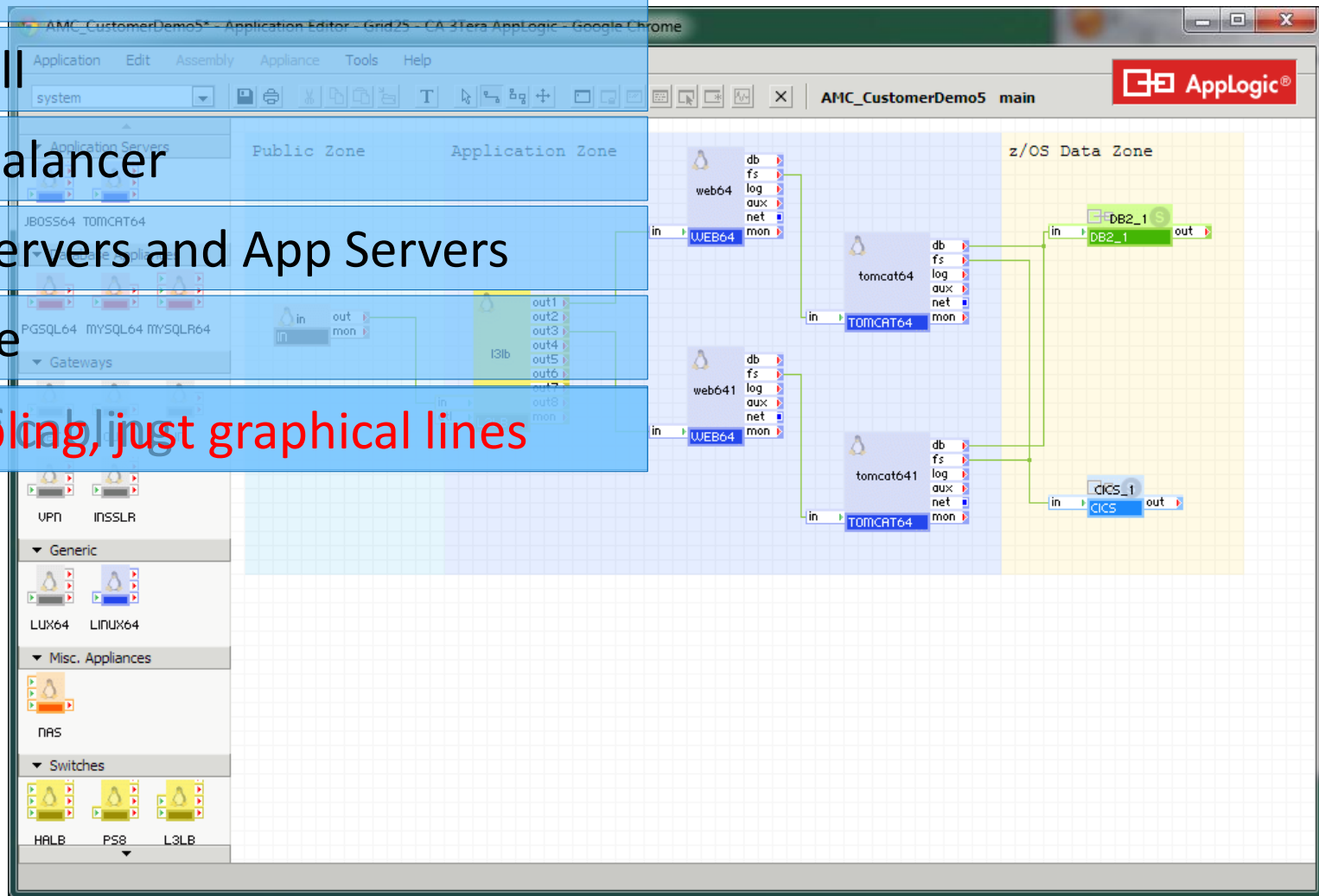
Firewall

Load Balancer

Web Servers and App Servers

Storage

No cabling, just graphical lines



but what is it really?

- System Dashboard - Applications Tab
- Infrastructure Editor – Catalog
- Infrastructure Editor – Appliances Instances
- z/OS Service End Point
- Virtual network connections

but what is it really?

System Dashboard - Applications Tab

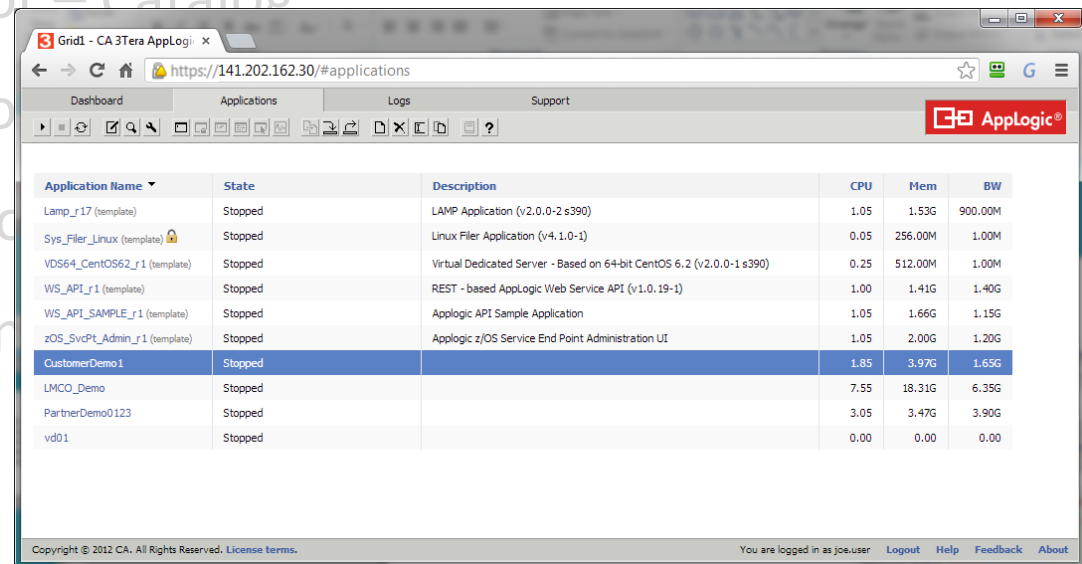
- System Dashboard - Applications Tab

- Infrastructure Editor – Catalog

- Infrastructure Editor

- z/OS Service End Point

- Virtual network console

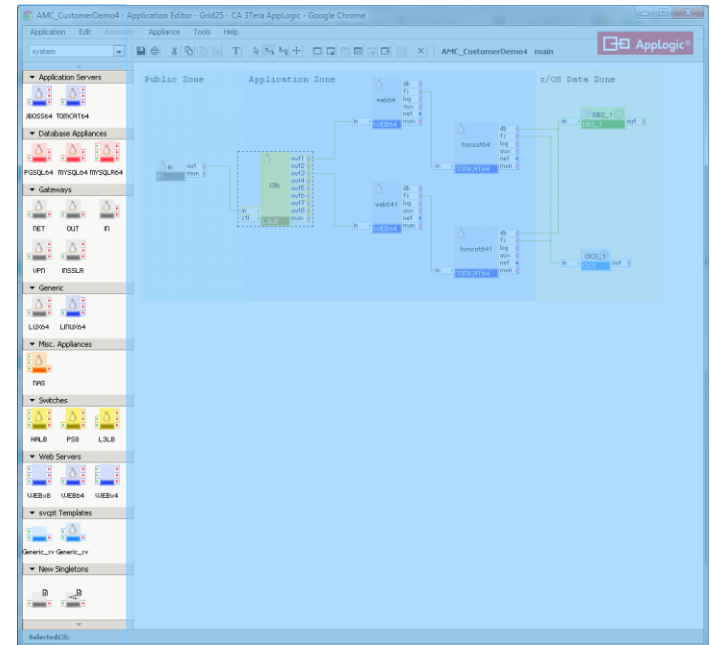


Application Name	State	Description	CPU	Mem	BW
Lamp_r17 (template)	Stopped	LAMP Application (v2.0.0-2 s390)	1.05	1.53G	900.00M
Sys_Filer_Linux (template)	Stopped	Linux Filer Application (v4.1.0-1)	0.05	256.00M	1.00M
VDS64_CentOS62_r1 (template)	Stopped	Virtual Dedicated Server - Based on 64-bit CentOS 6.2 (v2.0.0-1 s390)	0.25	512.00M	1.00M
WS_API_r1 (template)	Stopped	REST - based AppLogic Web Service API (v1.0.19-1)	1.00	1.41G	1.40G
WS_API_SAMPLE_r1 (template)	Stopped	Applogic API Sample Application	1.05	1.66G	1.15G
zOS_SvcPt_Admin_r1 (template)	Stopped	Applogic z/OS Service End Point Administration UI	1.05	2.00G	1.20G
CustomerDemo1	Stopped		1.85	3.97G	1.65G
LMCO_Demo	Stopped		7.55	18.31G	6.35G
PartnerDemo0123	Stopped		3.05	3.47G	3.90G
vd01	Stopped		0.00	0.00	0.00

but what is it really?

Infrastructure Editor – Catalog

- System Dashboard - Applications Tab
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but what is it really?

Infrastructure Editor – Catalog

- System
- Infrastr
- Infrastr

```
Need more appliances?

Visit Cloud Commons & download

Build your own

Create empty Linux VM within AppLogic
Install selected software
Create descriptor file to map config to AppLogic
```

```
component MySQL6
{
  .category          = "Database Appliances"
  .description        = "MySQL database appliance based on mysql 5.1.61 (v3.0.1-1 s390)"
  .doc_url            = "http://doc.3tera.com/AppLogic30z/CatDatabaseAppliancesMySQL.html"
  .config_mode        = dhcp
  .migrateable        = 1
  .console            = "ash:22,text"

  volume boot         : class      , dev = 0200 , type = instantiable , boot
  volume usr          : class      , dev = 0201 , type = common          , ro , shared
  volume data          : mandatory , dev = 0202

  resource cpu         : min       = 0.10 , max   = 16 , dflt = 0.40
  resource mem         : min       = 160M , max   = 32G , dflt = 512M
  resource bw          : min       = 1M   , max   = 2G , dflt = 250M

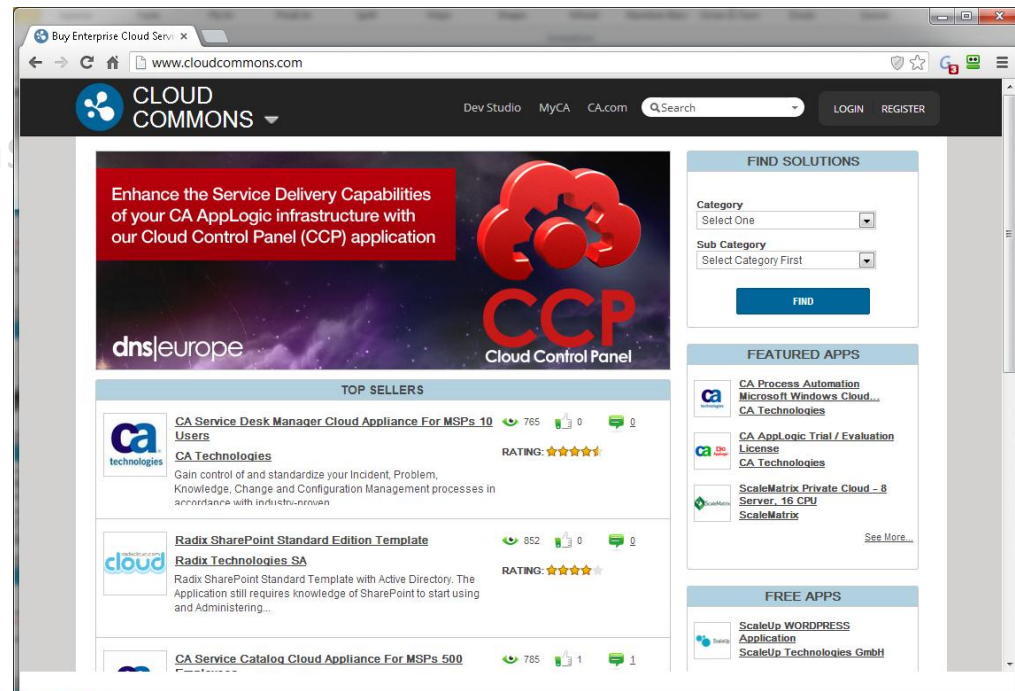
  input in             : protocol    = mysql
  output log           : protocol    = cifs
  output mon           : protocol    = cee

  interface default
  {
    property auto_create : type      = integer , values = 1|0 , dflt = 1
    property error_log_filename : type  = string , dflt = ""
    property error_log_level : type    = string , dflt = error , values = error|warn
    property timezone     : type      = string , dflt = ""

    virtualization
    {
      device_schema = vaddr
      modes         = zvm
    }

    visual
    {
      color      = red
      style      = small
      tpm1       = mysql64
      picture    = linux

      input in   : orient = west
      output mon : orient = east
      output log : orient = east
    }
  }
}
```



but what is it really?

Infrastructure Editor – Appliances Instances

Grid25 - CA 3Tera AppLog x CA AppLogic® for System x

doc.3tera.com/AppLogic30z/Catalog_Ref/index.htm?toc.htm?CatSwitchesL3LB.html

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- Catalog Overview
- System Catalog
 - Application Server Appliances
 - Web Server Appliances
 - Database Appliances
 - Miscellaneous Appliances
 - Switches
 - HALB - Session-aware HTTP load balancer based on HA Proxy
 - **L3LB - TCP/UDP Load Balancer**
 - PS8 - Scalable Port Switch
 - Gateways
 - Generic
 - svcpt Templates
- Filer Catalog

scaling of a VoIP cluster. In this example, the udp_roundrobin mode of operation is used.

Notes

Open source and third-party software used inside of the appliance

L3LB uses the following third-party open source packages in addition to the third-party open source packages used by its base class LUX64.

- haproxy-1.4.19-1.cl6.ca.s390x.rpm
- php-thttpd-2.25b-24.cl6_5.3.3.ca.s390x.rpm
- perl-Time-HiRes-1.9721-119.cl6_1.1.s390x.rpm
- php-common-5.3.3-3.cl6_2.8.s390x.rpm
- php-embedded-5.3.3-3.cl6_2.8.s390x.rpm

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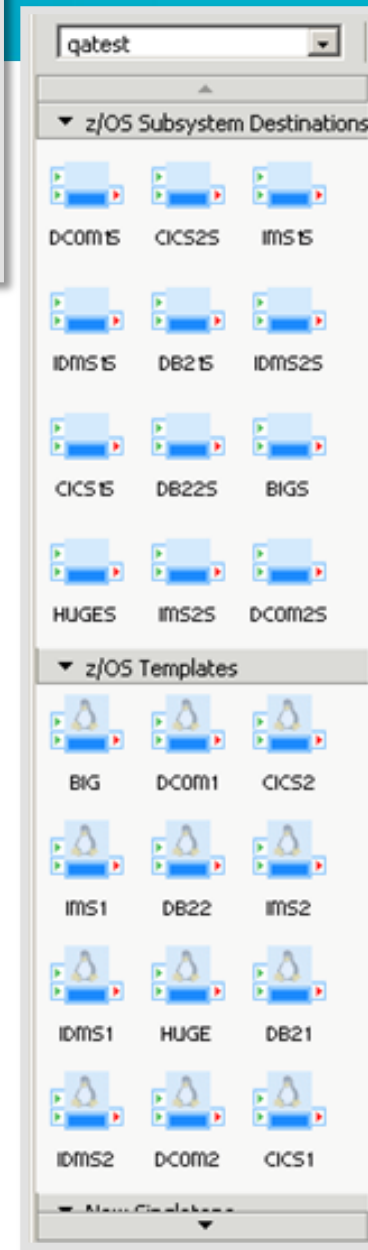
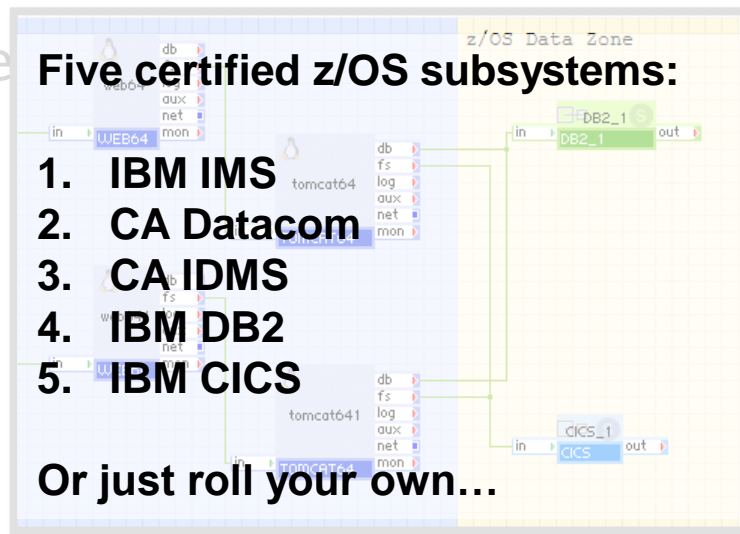
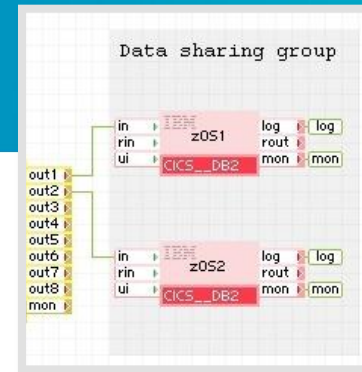
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doc.3tera.com/AppLogic30z/Catalog_Ref/CatSwitchesL3LB.html

but what is it really?

z/OS Service End Point

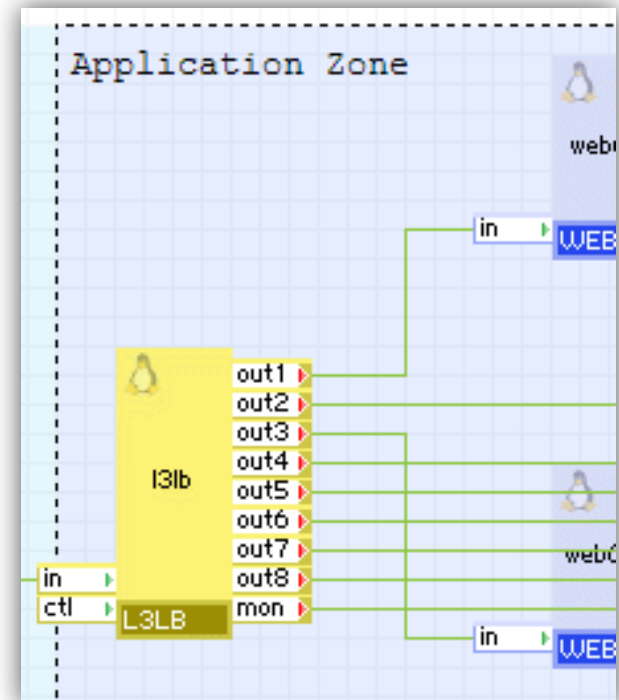
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what else does AppLogic® for System z provide?

- More Agility for Enterprises, build and deploy apps in minutes!
 - Deliver appropriate platform for SLO
 - On-demand elasticity and flexibility
 - IT manages the environment but development manages the applications
- Self-validating deployments
- Resource Management
 - Migrate between LPARS
- Appliance Management
 - Easy to construct “next” instances of appliances from the current versions
 - Easy to move appliances/applications from one grid to another
- Recovery techniques
 - HA, disk mirroring, etc. can be designed into the appliance/application implementation as policy
- Ability to Build Services for MSPs
 - Build new services that drive revenue in a commodity market.
 - Instantly replicate custom services for other customers
 - Migrate entire apps instantly

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AppLogic® for System z the bigger picture



Thank you