

# CA Investments in Linux for System z

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# CA Cloud Storage for System z

Value. Innovation. Compelling.

June, 2014

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# CA Cloud Storage Solution Overview

**Reduces dependency on storage hardware up to 60%**

CA provides the System z Connector

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Public Cloud

Private Cloud

**Reduce data protection costs by up to 80%**

Public Cloud Gateway

**riverbed**

De-duplication,  
compression  
& encryption

Encrypted  
In-Flight



**DATA DOMAIN**

**\*\*Need POC Partner**

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**Slash Data Center Storage Costs to Pennies per GB**

Your Cloud  
(Encrypted at Rest)



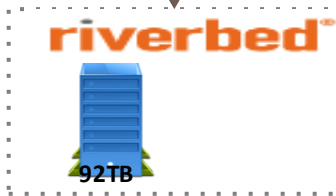
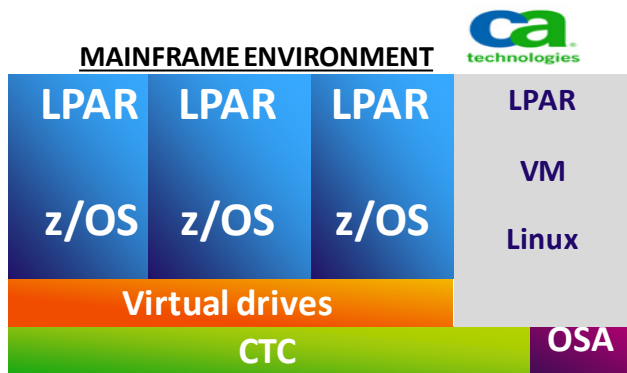
Google Cloud Platform

**SOFTLAYER**  
an IBM Company



**ca**  
technologies

# CA Cloud Storage Solution Overview



Mount Point 1:  
VOLSER Range:  
VV0000-VV9999

Compression  
Encryption

W  
A  
N



# CA Innovation in z/VM and Linux on z

- It's an exciting time for us....
- New development methodology
- Customer focused, customer driven

# VM:Backup

- Innovation development on-going – 4Q release
    - Fully documented and supported XRESTORE command
      - Restore deleted filespace
      - TEST and REPORT options added
    - DASDtape QUERY, LIST, and STATUS command
    - DASD scratch facility
- ... and more



# Simplify Linux on System z and accelerate mainframe cloud

## CA AppLogic® for System z

The screenshot displays the CA AppLogic for System z interface across three browser windows. The top window shows a list of applications with columns for Application Name, State, and various attributes. The middle window shows the 'Instance Settings' for a specific application, with tabs for Attributes, Resources, User Volumes, Property Values, and Notes. The bottom window shows the 'Application Editor' for 'AMC\_CustomerDemo', displaying a network diagram with various components like Application Servers, Database Appliances, and Gateways.

Application Name	State
Lamp_17 (template)	Stopped
Sys_Filter_Linux (template)	Stopped
VS664_CentOS62_1 (template)	Stopped
VS_API_1 (template)	Stopped
VS_API_SAMPLE_1 (template)	Stopped
zOS_SuPE_Admin_1 (template)	Stopped
CustomerDemo1	Stopped
LMCO_Demo	Stopped
PartnerDemo0123	Stopped
vd01	Stopped

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

Quickly design, provision and manage cloud applications on System z

Reduce costs and increase efficiency

- Host thousands of Linux on System z applications on a single zEnterprise server
- Replaces need for hundreds of distributed servers and their required network fabric

Easily connect to Data zone z/OS transactions and databases

Self-service provisioning on System z combines cost reduction and agility with massive scalability and reliability



# Guest Manager


- New feature of AppLogic for System z r3.7
- Beginning of a modernized VM:Manager
- Why?
  - First “prepackaged application” that delivers immediate value
  - Provide modern, web based interface to z/VM system management
  - Address constrained z/VM expertise and the steep learning curve

# What can Guest Manager do?

- z/VM Guest Management for the non-z/VM operator
  - View/sort list of all z/VM guests
  - View details of z/VM guests
  - View guest console logs
  - Conduct actions on z/VM guests
  - Role based access to view/manage guests

Modern, web based interface for z/VM that anyone can use

# Guest Manager - Dashboard


**VM:Guest Manager**
Logged in as **melmi11** | [Logout](#) | [Help](#)


Last Refresh  
6/2/2014 12:36:14 PM
Refresh Interval (mins)  z/VM System
Total: 466 guests
[Clear Filters](#) [Save Session Settings](#)

Logs ▾	Guest ID	State	System	OS Type	Hostname & IP Address	Logon Type	ACI Group	Account
	<input type="text" value="Filter for G"/>	<input type="text" value="Select st"/>	<input type="text" value="Select system..."/>	<input type="text" value="Select OS..."/>	<input type="text" value="Select Hostname &amp; IP address..."/>	<input type="text" value="Select Logon Type..."/>	<input type="text" value="Select ACI Group..."/>	<input type="text" value="Select Account..."/>
	ALDOGA	<span style="color: green; font-weight: bold;">Running</span>	ssa-April	Linux	fe80:0:0:200:c200:100:10		APPLOGIC	
	ZTBUILD	<span style="color: green; font-weight: bold;">Running</span>	ssa-April	Linux	141.202.162.6		BUILD	
	ALDOSUSE	<span style="color: green; font-weight: bold;">Running</span>	ssa-April	Linux	Select preferred		APPLOGIC	
	APRRH61	<span style="color: green; font-weight: bold;">Running</span>	ssa-April	Linux	141.202.162.17		QA	
	SCHDO08	<span style="color: red; font-weight: bold;">Stopped</span>	ssa-April	CMS				
	SCHRH61	Processing	ssa-April	Linux	141.202.162.25			
	ZTBOOT	<span style="color: red; font-weight: bold;">Stopped</span>	ssa-April				BUILD	99999999
	TESTAUTO	<span style="color: red; font-weight: bold;">Stopped</span>	ssa-April	CMS		AUTOONLY		
	HEAD001	<span style="color: red; font-weight: bold;">Stopped</span>	ssa-April	CMS			DEV2	
	MARED02	<span style="color: red; font-weight: bold;">Stopped</span>	ssa-April	CMS			QA	99999999
	AL030002	<span style="color: green; font-weight: bold;">Running</span>	ssa-April	Linux	Select preferred			
	ALVNP31	<span style="color: red; font-weight: bold;">Stopped</span>	ssa-April			LBYONLY		
	SSA2	<span style="color: red; font-weight: bold;">Stopped</span>	ssa-April	Linux	Select preferred			99999999
	ALVNPBK	<span style="color: red; font-weight: bold;">Stopped</span>	ssa-April	Linux	Select preferred			


	6/2/2014 2:46:53 PM	Recycle operation initiated on VM SCHRH61	<a href="#">Clear</a>
	6/2/2014 2:46:12 PM	VM SCHRH61 started successfully	<a href="#">Clear</a>
	6/2/2014 2:45:40 PM	Recycle operation initiated on VM APRRH61	<a href="#">Clear</a>

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# Guest Manager - Guest Details

**Guest: TCPIP**

**Guest Details** | Console Logs


 Last Refresh  
6/2/2014 12:36:24 PM 0 Refresh Interval (mins)

**Configuration**  
Guest ID: TCPIP - Tags  
State: ● Running  
ACI Group: none  
OS Type: CMS  
Logon Type: Password  
Privilege Class: ABG  
z/VM System: ssa-April  
Effective Account: none  
Shutdown Signal: NotEnabled




**Network Information**  
Last Network Discovery Time: 2014-05-08 16:11:57

<input type="radio"/>	IP Address	Hostname	MAC Address	VLAN ID	Networks <span style="float: right;">▲</span>
<input type="radio"/>	141.202.36.53	usildavb.ca.com.	02:00:c2:00:00:08	0001	VSWITCH INTRA36 LAYER 3 USERBASED UPLINK NONE QDIO VLAN UNAWARE
<input checked="" type="radio"/>	141.202.162.53	usildavb-alt.ca.com.	02:00:c2:00:00:09	0001	VSWITCH INTRA162 LAYER 3 USERBASED UPLINK TCPIPOSA QDIO VLAN UNAWARE

# Guest Manager - View Guest Console Logs

 **Guest: SCHRH61** Guest

Guest Details **Console Logs**

Start:  End:      Refresh Interval (mins) Total: 227 Messages

2014-06-02 15:16:02	Bringing up interface eth0: 8021q: adding VLAN 0 to HW filter on device eth0
2014-06-02 15:16:06	[ OK ]
2014-06-02 15:16:06	Starting system logger: [ OK ]
2014-06-02 15:16:06	Starting rpcbind: [ OK ]
2014-06-02 15:16:06	Starting NFS statd: [ OK ]
2014-06-02 15:16:06	Starting RPC idmapd: RPC: Registered udp transport module.
2014-06-02 15:16:06	RPC: Registered tcp transport module.
2014-06-02 15:16:06	RPC: Registered tcp NFSv4.1 backchannel transport module.
2014-06-02 15:16:11	[ OK ]
2014-06-02 15:16:11	Mounting other filesystems: [ OK ]
2014-06-02 15:16:11	Retrigger failed udev events[ OK ]
2014-06-02 15:16:11	Starting sshd:
2014-06-02 15:16:11	[ OK ]
2014-06-02 15:16:11	Starting cpi: [ OK ]
2014-06-02 15:16:11	Starting postfix:
2014-06-02 15:16:12	[ OK ]
2014-06-02 15:16:12	Starting crond: [ OK ]
2014-06-02 15:16:12	Starting rhsmcertd 240[ OK ]
2014-06-02 15:16:12	chgrp: invalid group: `vmcp`
2014-06-02 15:16:12	<ESC>c
2014-06-02 15:16:12	Red Hat Enterprise Linux Server release 6.1 (Santiago)
2014-06-02 15:16:12	Kernel 2.6.32-131.0.15.el6.s390x on an s390x
2014-06-02 15:16:12	schrh61 login:

# Guest Manager - Guest Actions

**VM:Guest Manager**

Last Refresh: 6/2/2014 12:36:14 PM  
Refresh Interval: 0 (mins)  
z/VM System  
Total: 46

Logs	Guest ID	State	System	OS Type	Hostname & IP Address
	Filter for	Select	Select syste	Select OS	Select Hostname & IP address
	ALDOGA	Running	ssa-April	Linux	fe80:0:0:0:200:c200:100:10
	ZTBUILD	Running	ssa-April	Linux	141.202.162.6
	ALDOSUSE	Running	ssa-April	Linux	Select preferred
	APRRH61	Running	ssa-April	Linux	141.202.162.17
	SCH	Running	ssa-April	CMS	
	SCH	Running	ssa-April	Linux	141.202.162.25
	ZTBO	Running	ssa-April		
	TEST	Running	ssa-April	CMS	
	HEAL	Running	ssa-April	CMS	
	MARED02	Stopped	ssa-April	CMS	

**Guest: APRRH61**

- Start
- Stop
- Recycle
- Console Log

# What's next?

- Continue investing in VM:Manager
- Increased functionality of Guest Manager
- Additional prepackaged applications
  
- Customer driven

**For More Information please contact...**

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