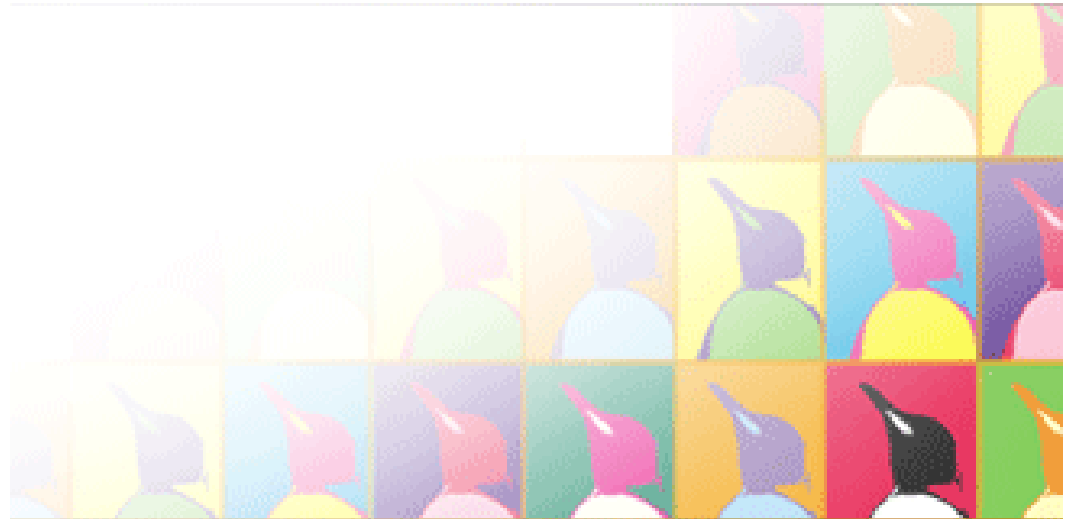
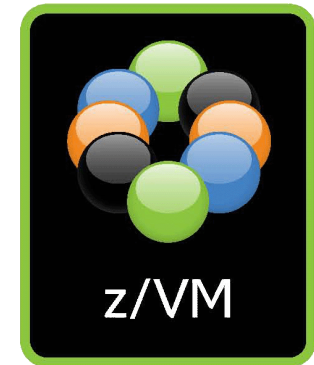


IBM Client Center z/VM 6.2 Single System Image (SSI) & Live Guest Relocation (LGR) DEMO



z/VM Live Guest Relocation (LGR) - Demo

IBM z/VM 6.2

Single System Image (SSI) & Live Guest Relocation (LGR)

... accelerates the journey to smarter computing - ensures and increases application availability with new balancing and maintenance options.

IBM Client Center, IBM Germany Lab
<http://clientcenter.de.ibm.com/>



View Intro



Instructions and Help



Related Links



Live

Demo is about

Overview

Commandline

xCAT

CSL WAVE

IBM z/VM Single System Image (SSI) Live Guest Relocation (LGR) Demo

Consolidation is the key driver for doing virtualization.

Virtualization is an integral part of the Mainframe since decades.

Virtualization is offered in two flavors PR/SM / LPAR and z/VM.

The Most recent z/VM version 6.2 introduces a new feature:

Single System Images (SSI), allowing Live Guest Relocation (LGR)

The main values and use cases of LGR are to ensure and increase application availability with:

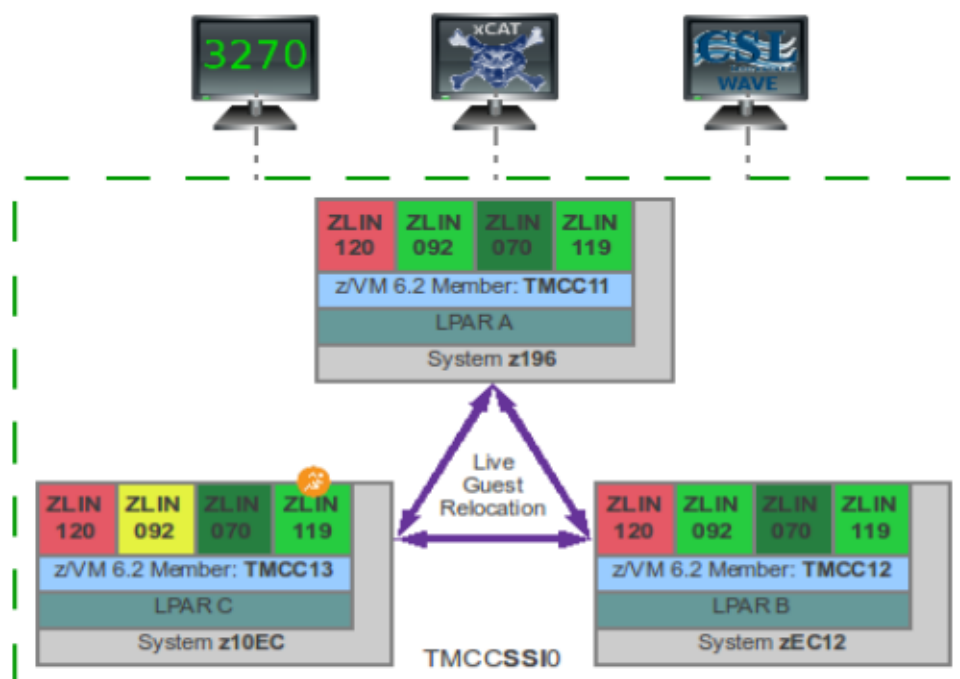
- Balancing (balance the workload over 2+ z/VM instances)
- Maintenance (moving workload off a z/VM instance to allow service)

IBM z/VM 6.2 accelerates the journey to smarter computing with multi-system virtualization (SSI) and virtual server mobility (LGR)!



See how simple it is to migrate running Linux on System z virtual machines, based on z/VM 6.2's new Single System Image (SSI) and Live Guest Relocation (LGR) feature.

- The demonstrator has three different and independent options to show the LGR feature.
 - using the pure and straight way, based on a 3270 terminal client (PCOM or x3270)
 - using the Open Source way, based on xCAT
 - using the comfortable, commercial way, based on CSL WAVE
- It can be chosen if only one of the ways is presented, or multiple ways.
- The z/VM SSI cluster consists of different System z machines (z10EC, z196 and zEC12), all running z/VM 6.2 members.
- Again all members run multiple Linux on System z virtual machines, four VMs are defined each, running in different states.
- The VM named 'ZLIN119' will be used for the relocation task.



Best in class virtualization – now with Live Guest Relocation (LGR) aka VM migration !



Demo is about

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The pure and straight commandline way, to present how z/VM Live Guest Relocation works.

```

A - LGR_TMCC11.WS
File Edit View Communication Actions Window Help
Host: 192.168.9.11 Port: 23 LU Name: Disconnect
Ready; T=0.01/0.01 13:07:22
q ZLIN119
ZLIN119 - DSC
Ready; T=0.01/0.01 13:07:33
q vmrelocate ZLIN119
Running on member TMCC11
Relocation enabled in Domain SSI
Ready; T=0.01/0.01 13:07:45
vmrelocate test ZLIN119 to TMCC14
HCPRLH1927E System TMCC14 is not a member of an SSI cluster
Ready(01927); T=0.01/0.01 13:10:51
vmrelocate test ZLIN119 to TMCC13
User ZLIN119 is eligible for relocation to TMCC13
Ready; T=0.01/0.01 13:11:03

ZLIN119
Using username "root".
Using keyboard-interactive authentication.
Password:
Last login: Wed Jan 23 11:36:00 2013 from 192.168.9.88
tmcc-123-119:~ # cat /proc/cpuinfo | grep -i machine
processor 0: version = FF, identification = 0CB440, machine = 2097
tmcc-123-119:~ # cat /proc/sysinfo | grep -i type
Type: 2817
tmcc-123-119:~ # vmcp q userid
ZLIN119 AT TMCC11
tmcc-123-119:~ # uptime
 11:48am up 14 days 23:30, 1 user, load average: 0.00, 0.00, 0.00
tmcc-123-119:~ # uptime
 1:13pm up 15 days 0:56, 2 users, load average: 0.00, 0.00, 0.00
tmcc-123-119:~ # vmcp q userid
ZLIN119 AT TMCC13
tmcc-123-119:~ # cat /proc/sysinfo | grep -i type
Type: 2097
tmcc-123-119:~ # cat /proc/cpuinfo | grep -i machine
processor 0: version = FF, identification = 0CB440, machine = 2097
tmcc-123-119:~ #
    
```

Detailed Information



Demo is about

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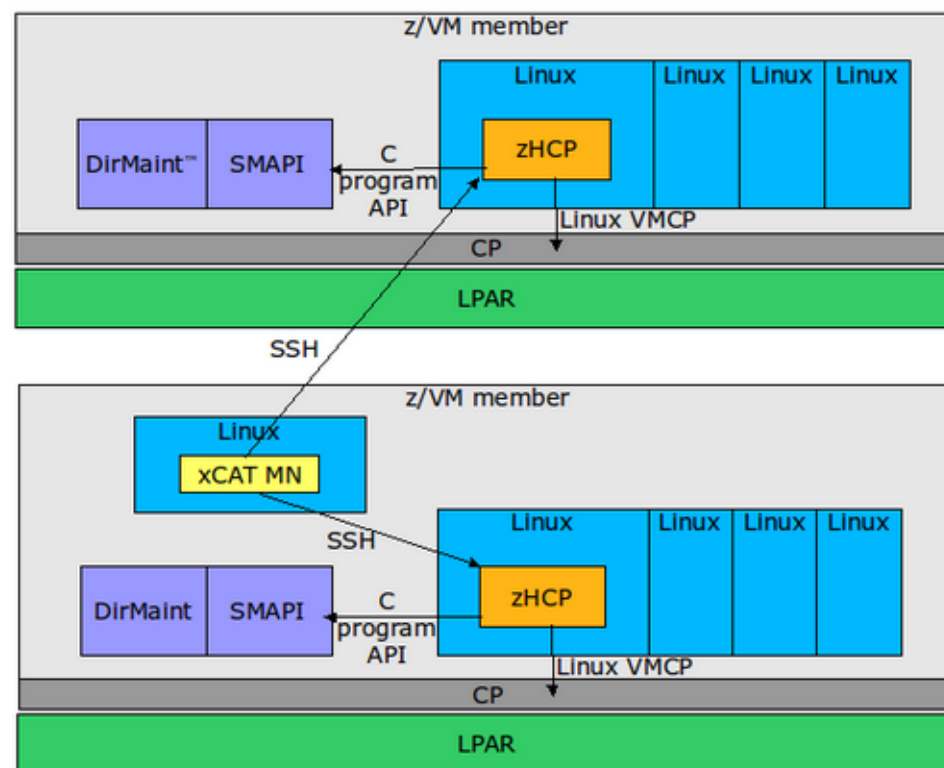
CSL WAVE

The Open Source way, based on xCAT, to present how z/VM Live Guest Relocation works.

xCAT MN:
Management Node
(single instance)
Central management server
running on normal Linux

zHCP:
System z Hardware Control Point
(one per z/VM member)
Runs on privileged VM and
manages other VMs via SMAPI
and CP

Detailed Information





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CSL WAVE

The comfortable, but commercial way, based on CSL WAVE, to present how z/VM Live Guest Relocation works.

The GUI Client

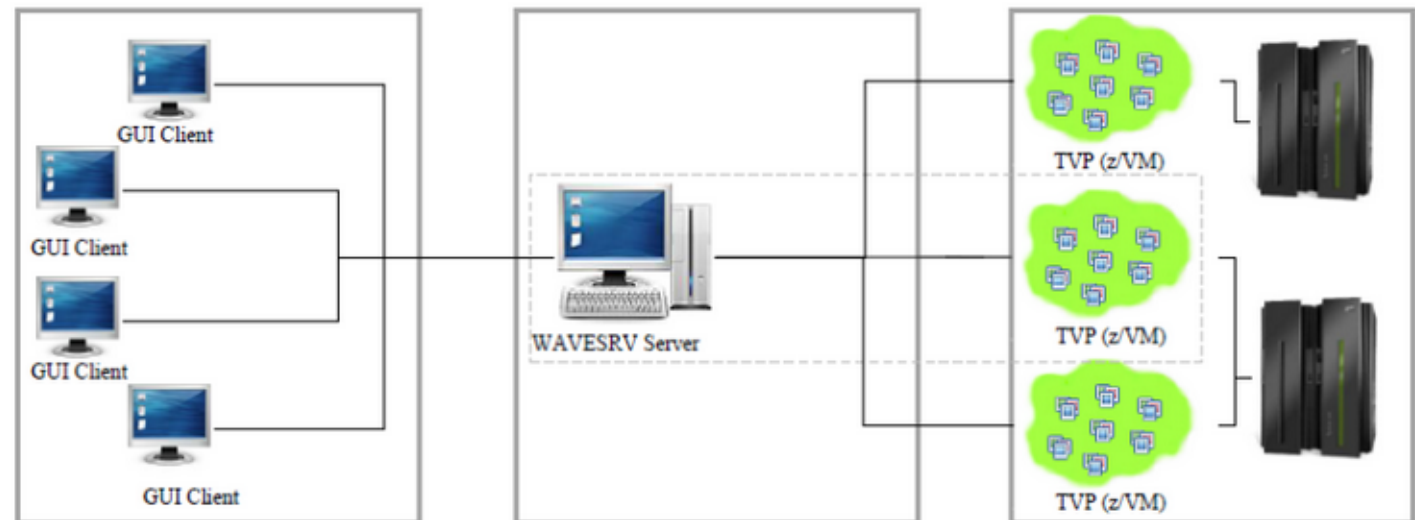
The GUI Client can run on any platform supporting Java (Windows, Mac, and Linux). It provides a graphic interpretation of the knowledgebase and allows the user to interact with the TVP using Point-and-Click and Drag-and-Drop operations.

The BTS (WAVESRV)

This server can be a physical or virtual one and hosts the application database and BTS (Background Task Scheduler). There is no limitation on the number of TVPs or virtual guests that one BTS server can manage.

The TVP

The Target Virtualization Platform (TVP) represents the hypervisor which hosts the virtual guests. The BTS and the GUI Clients utilize the TVP API to query and perform changes to the TVP and hosted virtual guests.



CSL-WAVE, Get z Power without z Learning Curve: http://csl-int.com/pages_docs/CSL-WAVE-Overview-Brochure-w30-features-rev-a.pdf

Detailed Information

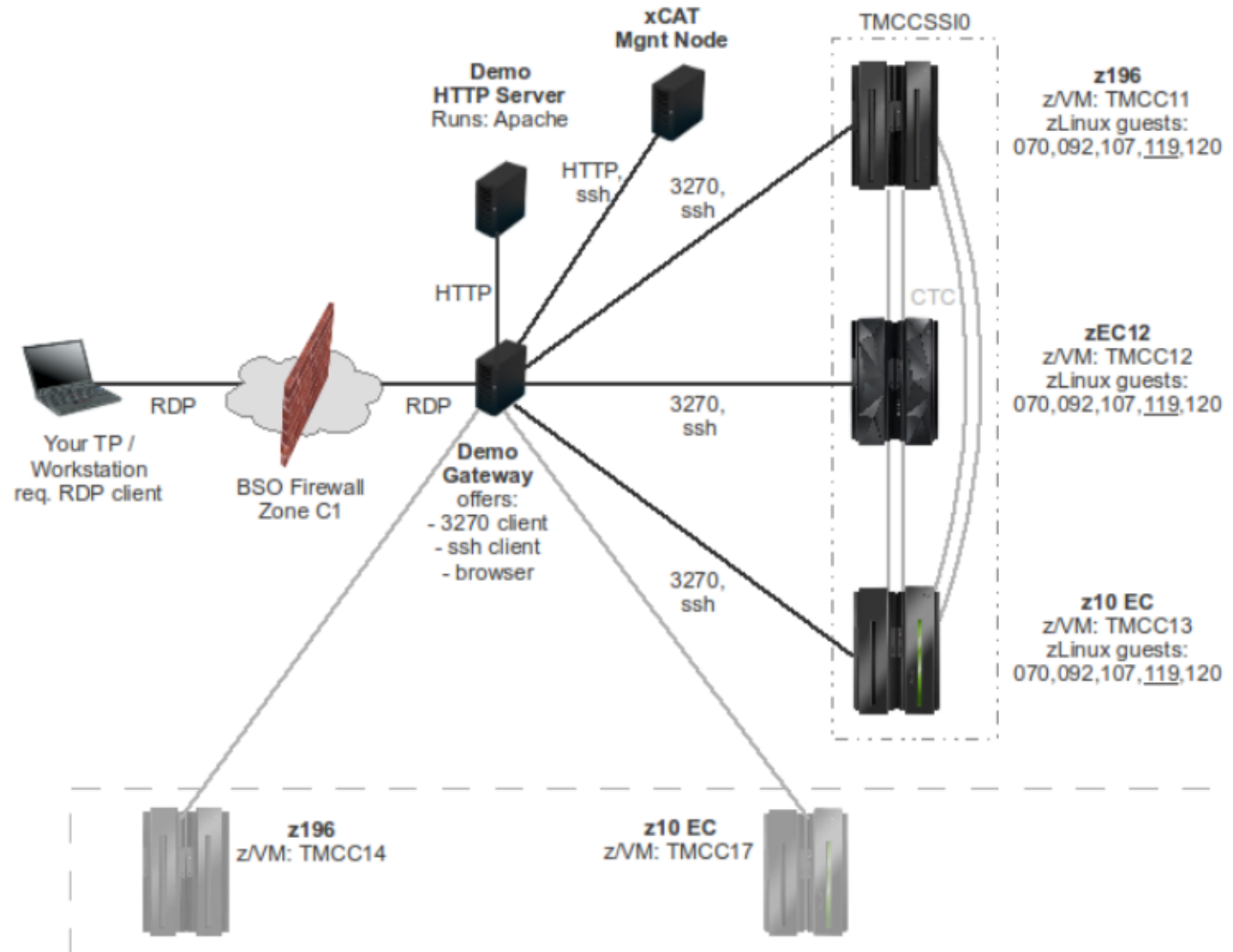
Live

Demo Setup

Commandline

xCAT

CSL WAVE



Let's start the demo ...



Summary

Summary



IBM z/VM 6.2 accelerates the journey to smarter computing with multi-system virtualization (SSI) and virtual server mobility (LGR)

Multisystem virtualization allows up to 4 z/VM instances to be clustered, serviced, and administered as a Single System Image (SSI)

Live Guest Relocation (LGR) moves running Linux virtual servers without disruption to the business

Provides a set of shared resources for the z/VM systems and their hosted virtual machines, that can be controlled by either 3270 commands, xCAT or CSL WAVE

High server consolidation ratio with support for more virtual servers than any other platform in a single footprint

Thank you – Questions ?

Obrigado

Portuguese

Merci

French

Thank You

English

Gracias

Spanish

Danke

German



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