

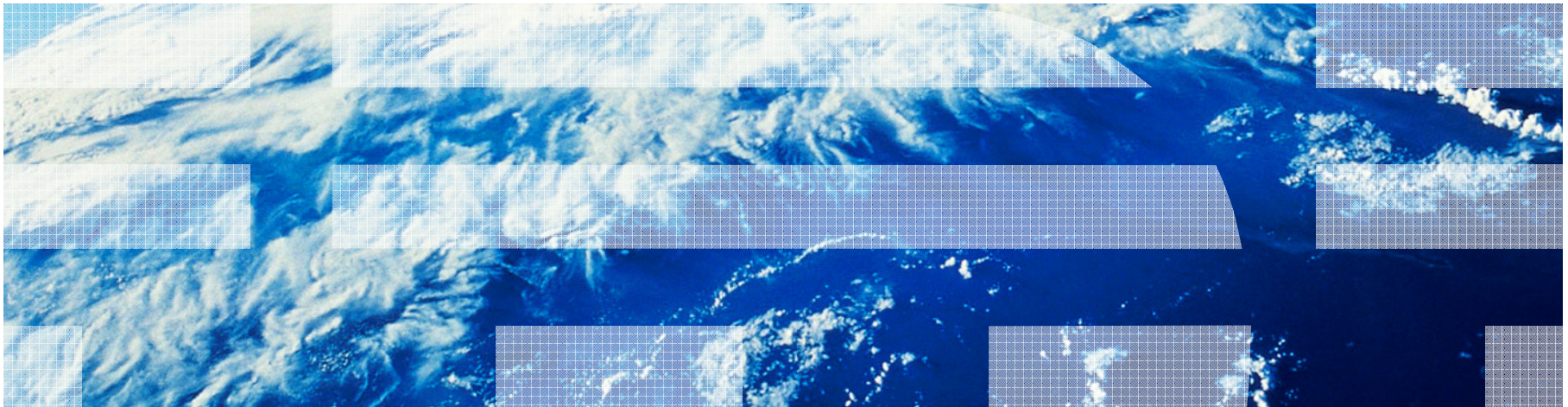
z/VM LGR exploitation using GDPS

Introduction and Demo

Joachim Weber – System Automation Development



Let's build a smarter planet.



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Agenda

- Introduction
 - GDPS and xDR, z/VM
 - z/VM Single System Image (SSI)
 - z/VM Live Guest Relocation (LGR)
- GDPS – Integrated Scenarios with LGR
 - LPAR Maintenance
 - Site Maintenance
- More Details
 - How LGR is controlled by GDPS
- Demo

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 - How LGR is controlled by GDPS
- **Demo**

-
- GDPS**
Providing world class protection
Est. 1998
- Solutions map**
- GDPS Active-Active**
Brand new Software based replication
- DCM**
Distributed Cluster management
- xDR**
Enhanced Resilience for zLinux/zVM
- GDPS/HyperSwap Manager**
Storage CA solution
- GDPS/PPRC**
Zero dataloss Metro distance CA/DR solution
- GDPS/GM**
Disaster Recovery solution Unlimited distance
- GDPS/MzGM**
3-site solution
- GDPS/XRC**

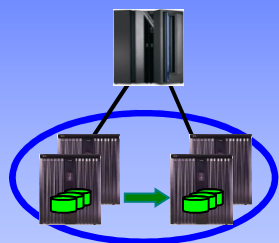
There are multiple GDPS service products under the GDPS solution umbrella to meet various customer requirements for Availability and Disaster Recovery.

GDPS/PPRC HM

Continuous Availability of Data within a Data Center

Single Data Center
Applications remain active

Continuous access to data in the event of a storage subsystem outage

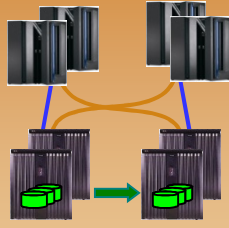


RPO=0 & RTO=0

GDPS/PPRC

Continuous Availability / Disaster Recovery within a Metropolitan Region

Multi-site workloads can withstand site and/or storage failures

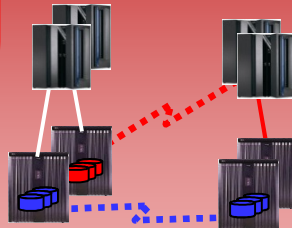


A/S RPO=0 & RTO<1 hr or
A/A RPO=0 & RTO mins

GDPS/GM & GDPS/XRC

Disaster Recovery at Extended Distance

Two Data Centers
Rapid Systems Disaster Recovery with "seconds" of Data Loss
Disaster recovery for out of region interruptions

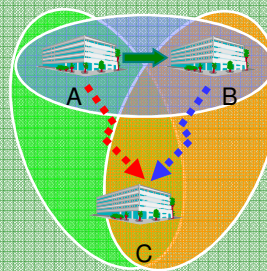


RPO secs & RTO <1 hr

GDPS/MGM & GDPS/MzGM

Continuous Availability Regionally and Disaster Recovery Extended Distance

Three Data Centers
High availability for site disasters
Disaster recovery for regional disasters



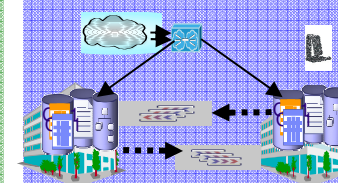
A/S RPO=0 & RTO<1 hr or
A/A RPO=0 & RTO mins
and RPO secs & RTO <1 hr

GDPS/Active-Active

Continuous Availability, Disaster Recovery, and Cross-site Workload Balancing at Extended Distance

Two or More Data Centers

All sites active



RPO secs & RTO secs

Components

GTS – GDPS control code, Services
STG – System z, DS8K, PPRC
Tivoli – NetView, SAz

GTS – GDPS control code, Services
STG – System z, DS8K, VTS, PPRC
Tivoli – NV, SAz, SA-MP, AppMan

GTS – GDPS control code, Services
STG – System z, DS8K, Global Mirror, XRC
Tivoli – NV, SAz

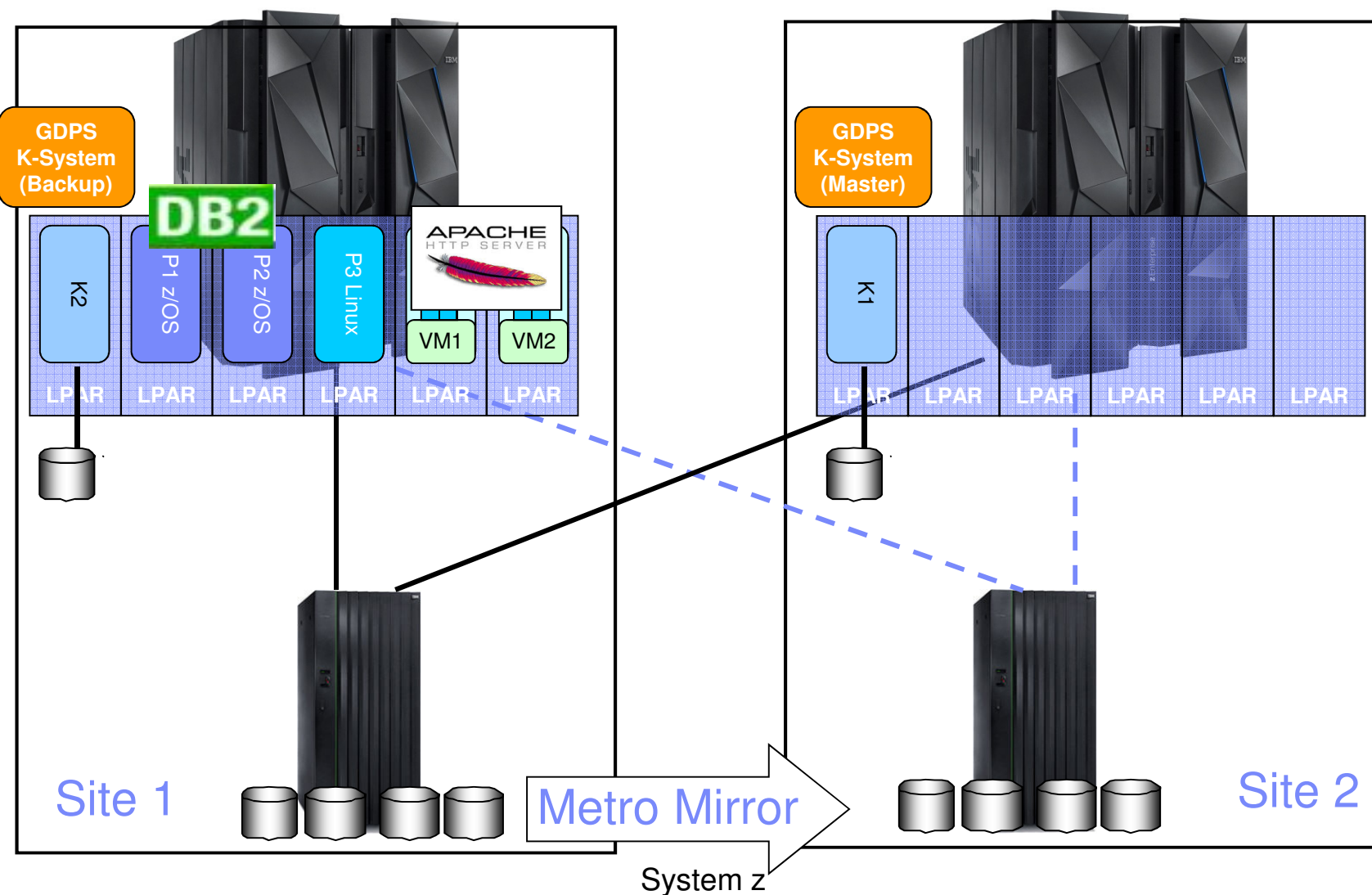
GTS – GDPS control code, Services
STG – System z, DS8K, MGM, MzGM
Tivoli – NV, SAz

GTS – GDPS control code, Services
AIM - Multi-site Workload Lifeline
IM - DB2 & IMS replication
STG – System z, DS8K, Global Copy
Tivoli – SA, NetView

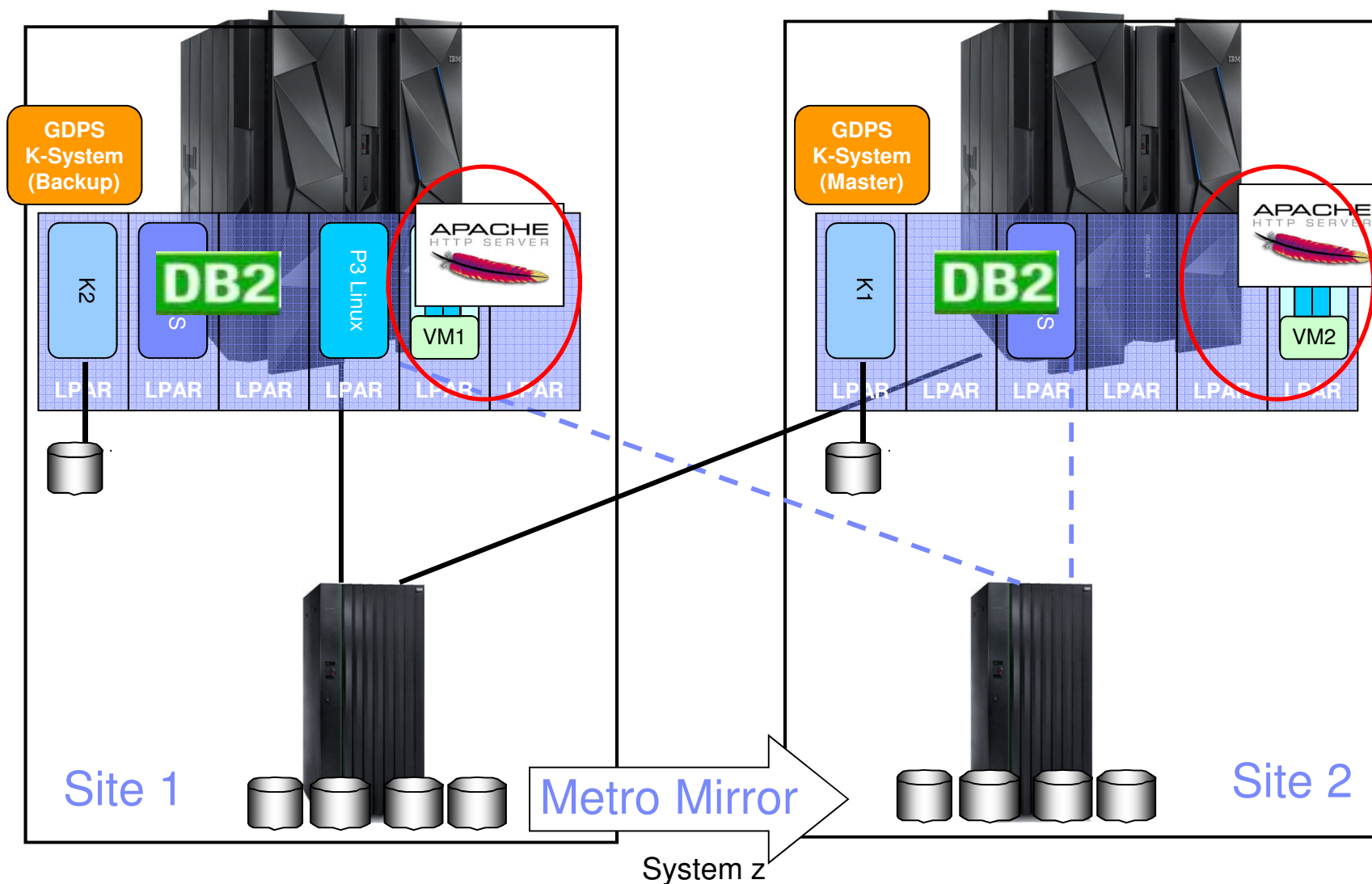
RPO – recovery point objective
RTO – recovery time objective

Synch replication →
Asynch replication →

GDPS Topology – Simplified

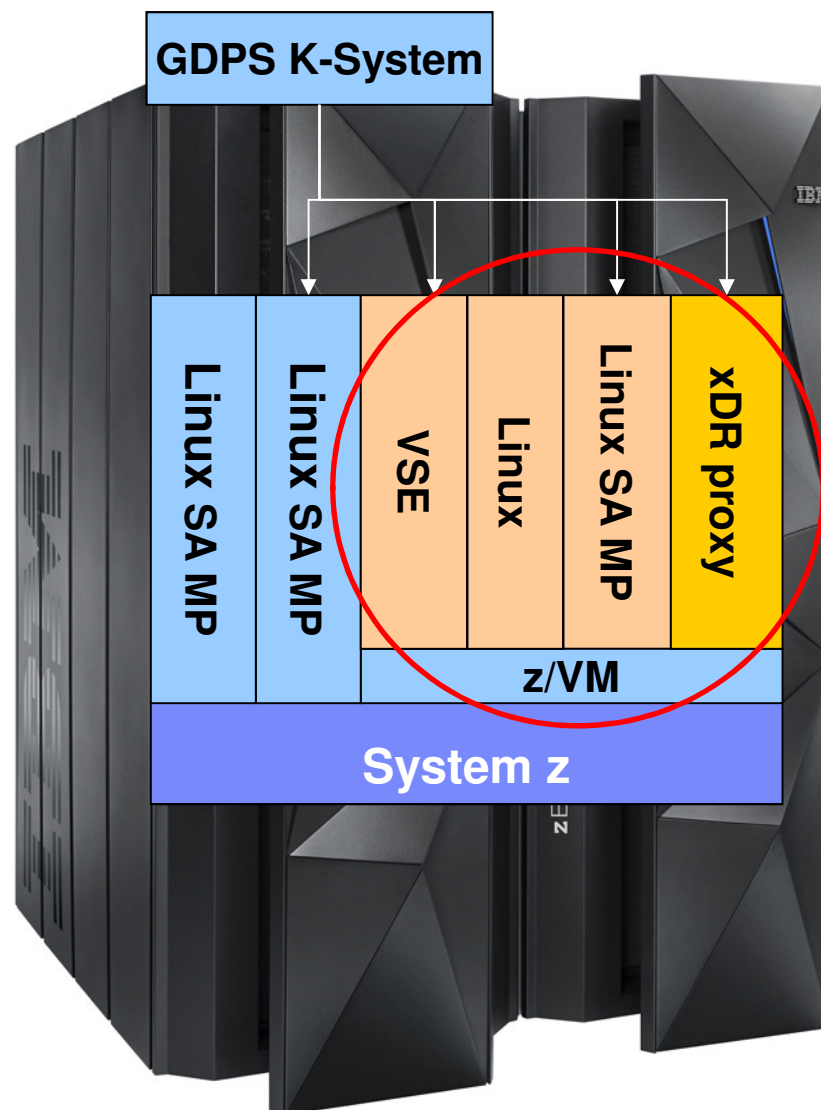


GDPS Topology



xDR - Overview

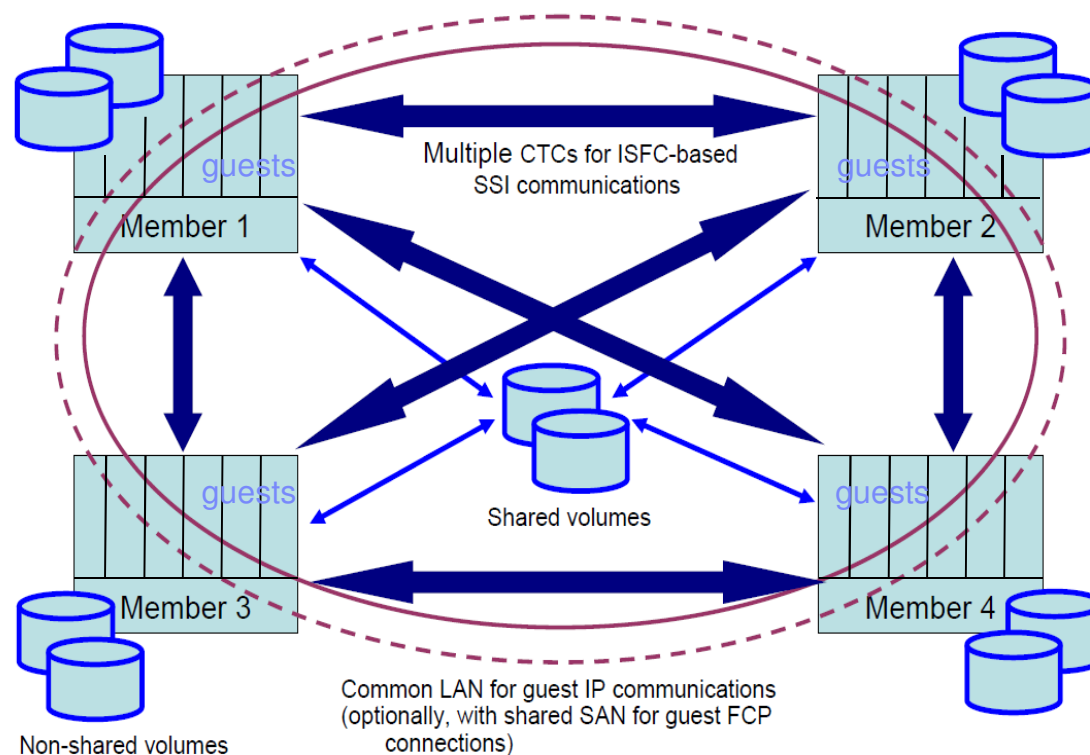
- xDR provides the same DR capabilities for Linux running on System z as for z/OS
- Highly automated tasks reduce risk for operating errors
- Disaster Detection on Linux e.g. disk failure, system failure
- Clustering and High availability – provides high availability in case of system, application or network failure
- Single point of control from GDPS
- A complete cross-platform disaster recovery task can be done by operator – no need for availability of all experts for e.g. storage team, hardware team, OS team, application team etc.
- Supported Platforms
 - Linux running as guest on z/VM (xDR on z/VM)
 - Linux running native in LPAR (xDR native)
 - Only reduced set of Linux Distributions are supported



z/VM SSI - What is z/VM Single System Image?

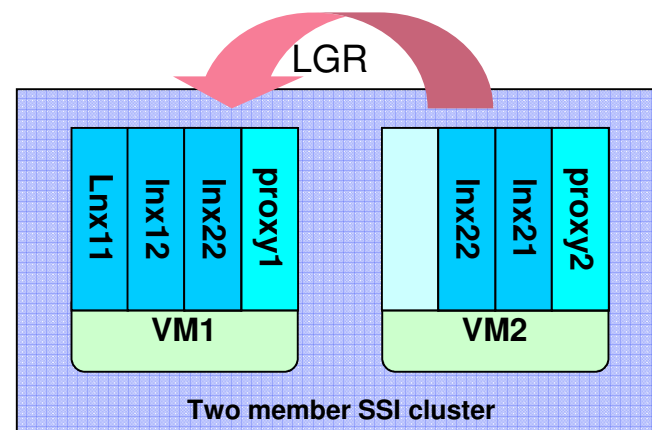
- **Share and coordinate resources within an SSI structure**

- Systems Management
- Communications
- Disk Management
- Device Mapping
- VM Definition
- Management
- Installation
- Service Functions
- **Live Guest Relocation**



z/VM Live Guest Relocation – What is LGR?

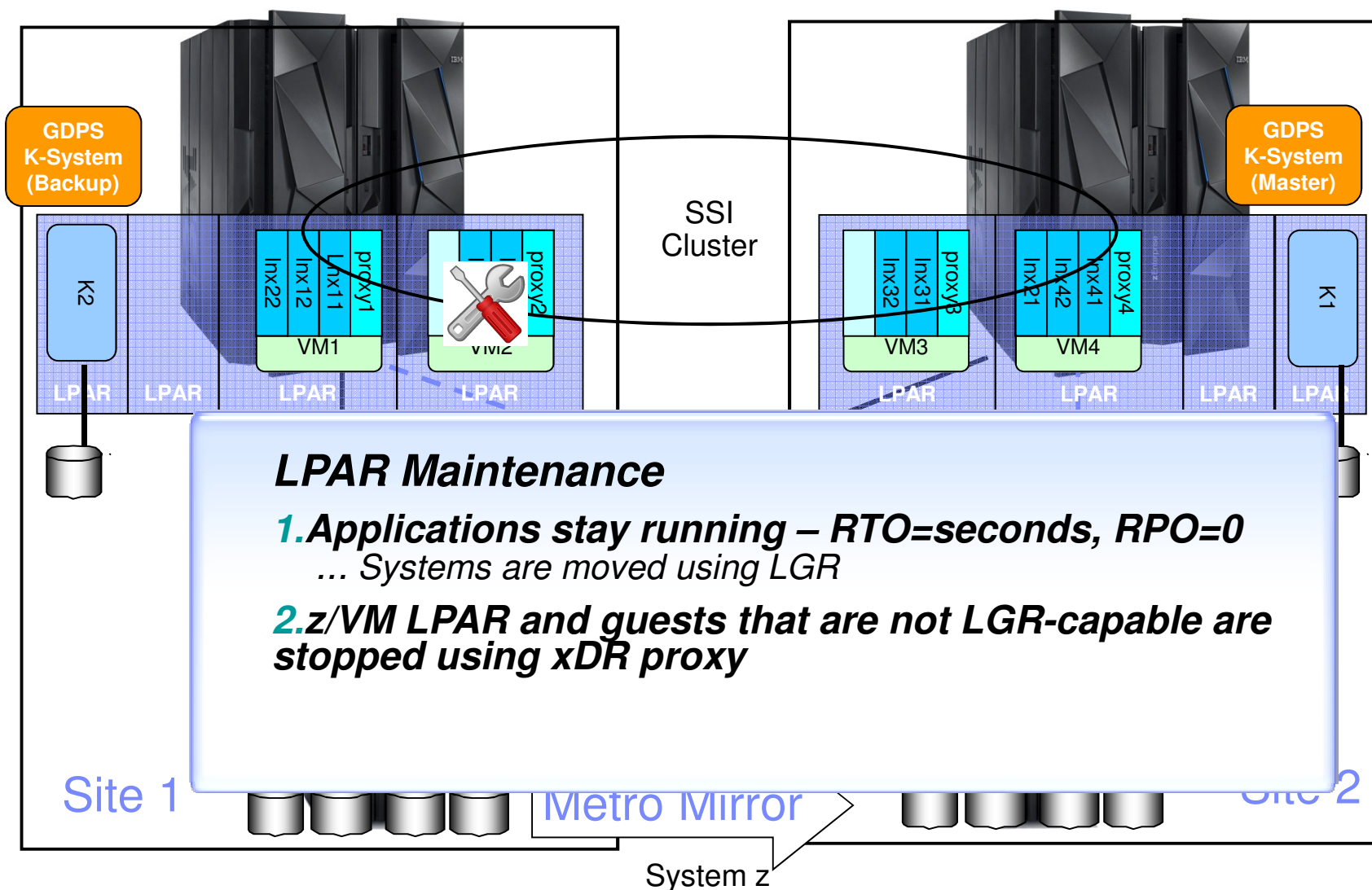
- Relocate virtual server from one member system to any other
 - Virtual servers stay operational
 - Purpose
 - Maintenance of hardware or software
 - Fixing performance problems
 - Workload balancing
- ➔ no outage



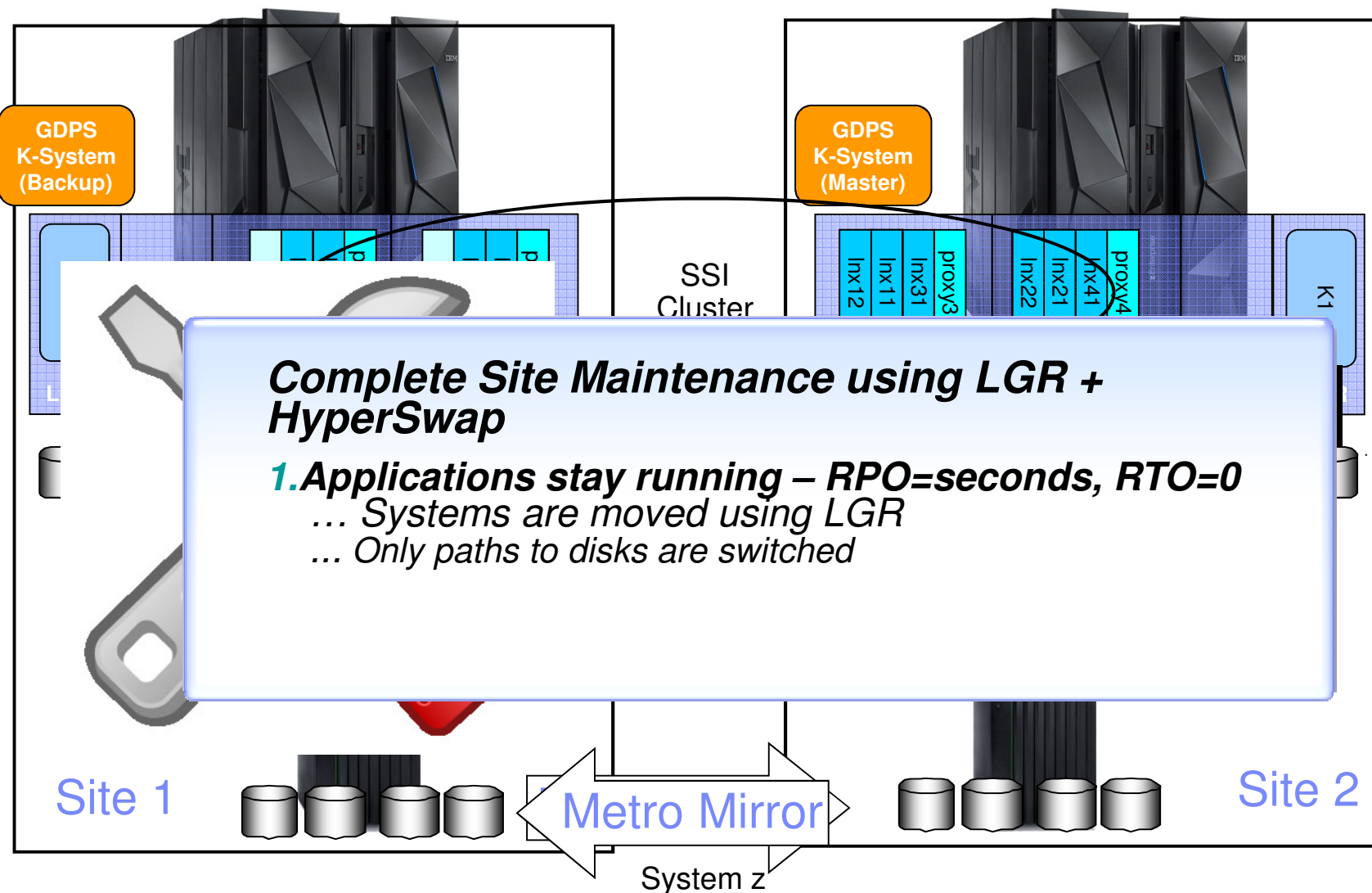
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Scenario 1: z/VM or LPAR Maintenance - Continuous Availability of z/VM Guests



Scenario 2: Site Maintenance - Continuous Availability of z/VM Guests

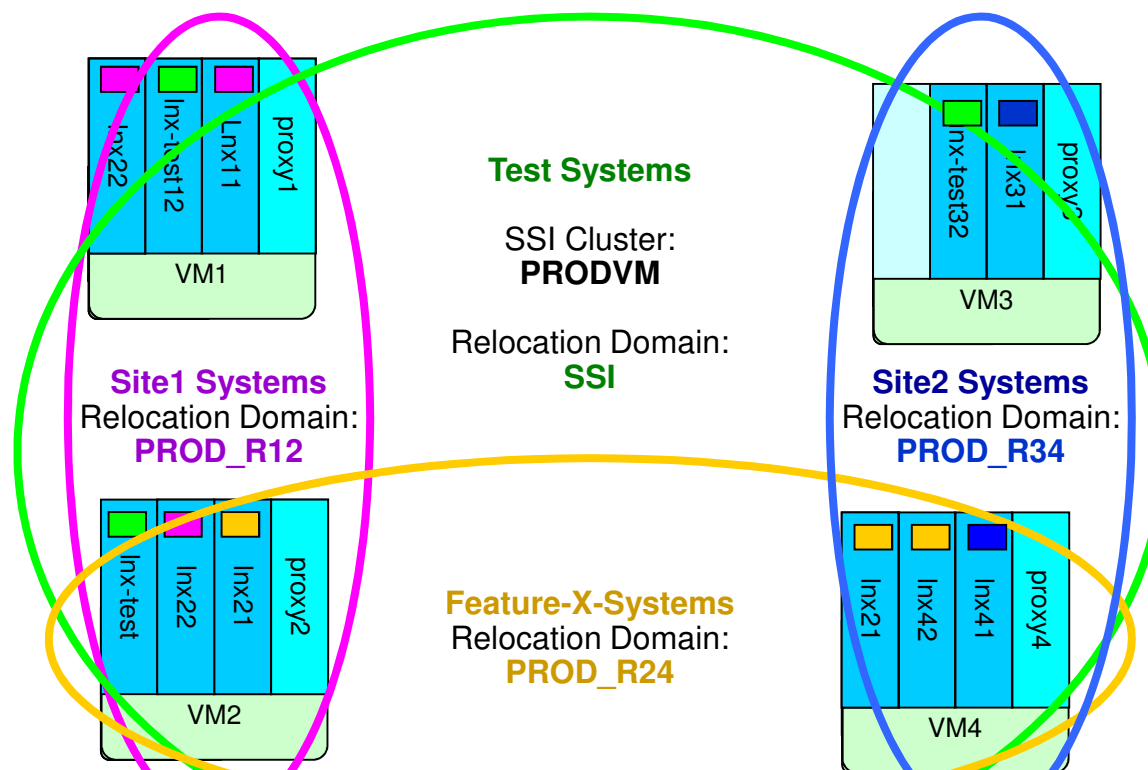


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What is a Relocation Domain?

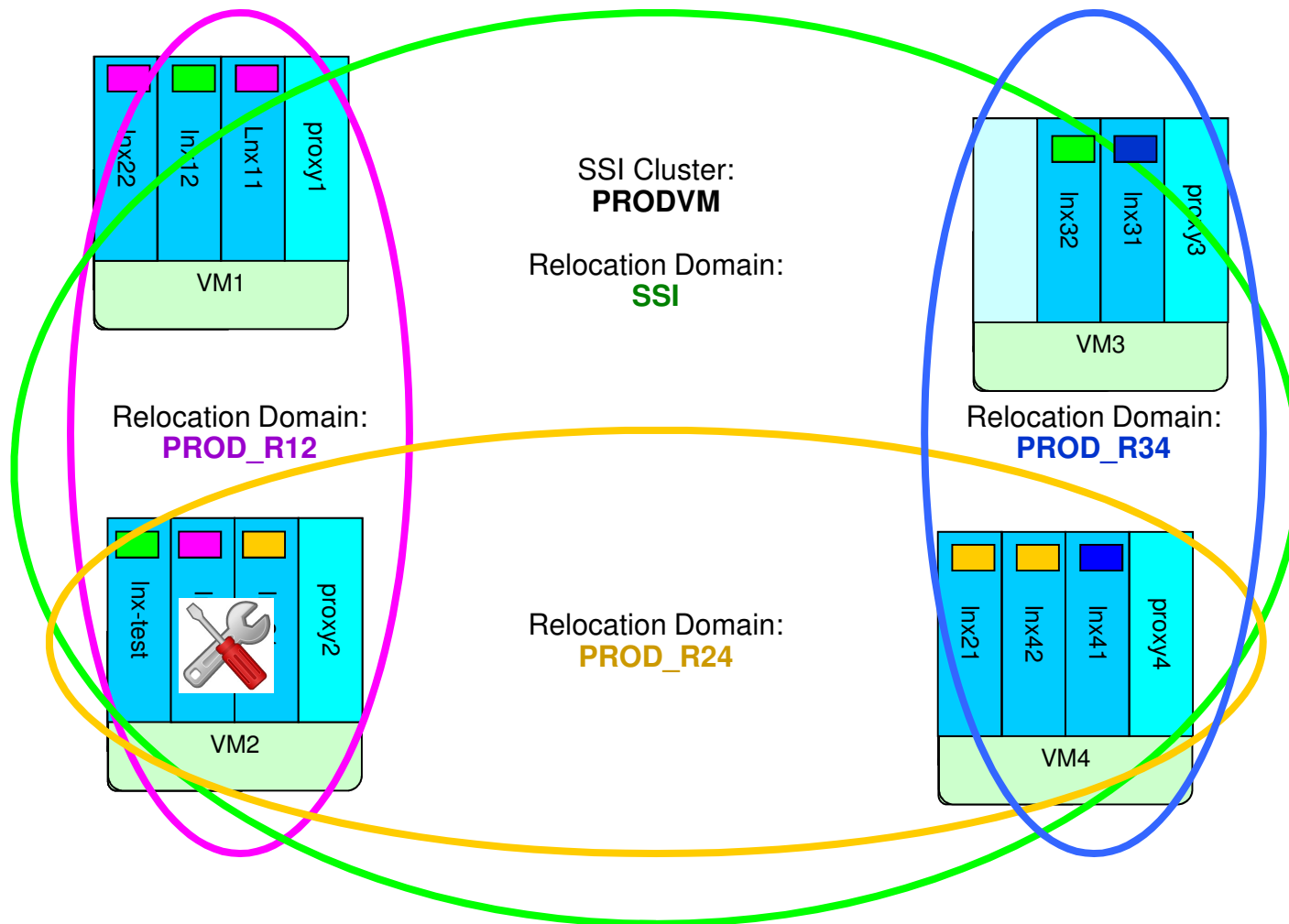
- Defines set of members among which Linux guests can be relocated
- Purpose
 - Group type of workload (Test, Development, Production)
 - Restrict guests to be located on members supporting a feature (e.g. Feature-X)



Naming Convention:

GDPS only works with Relocation Domains having the same 4-character-prefix as the SSI Name

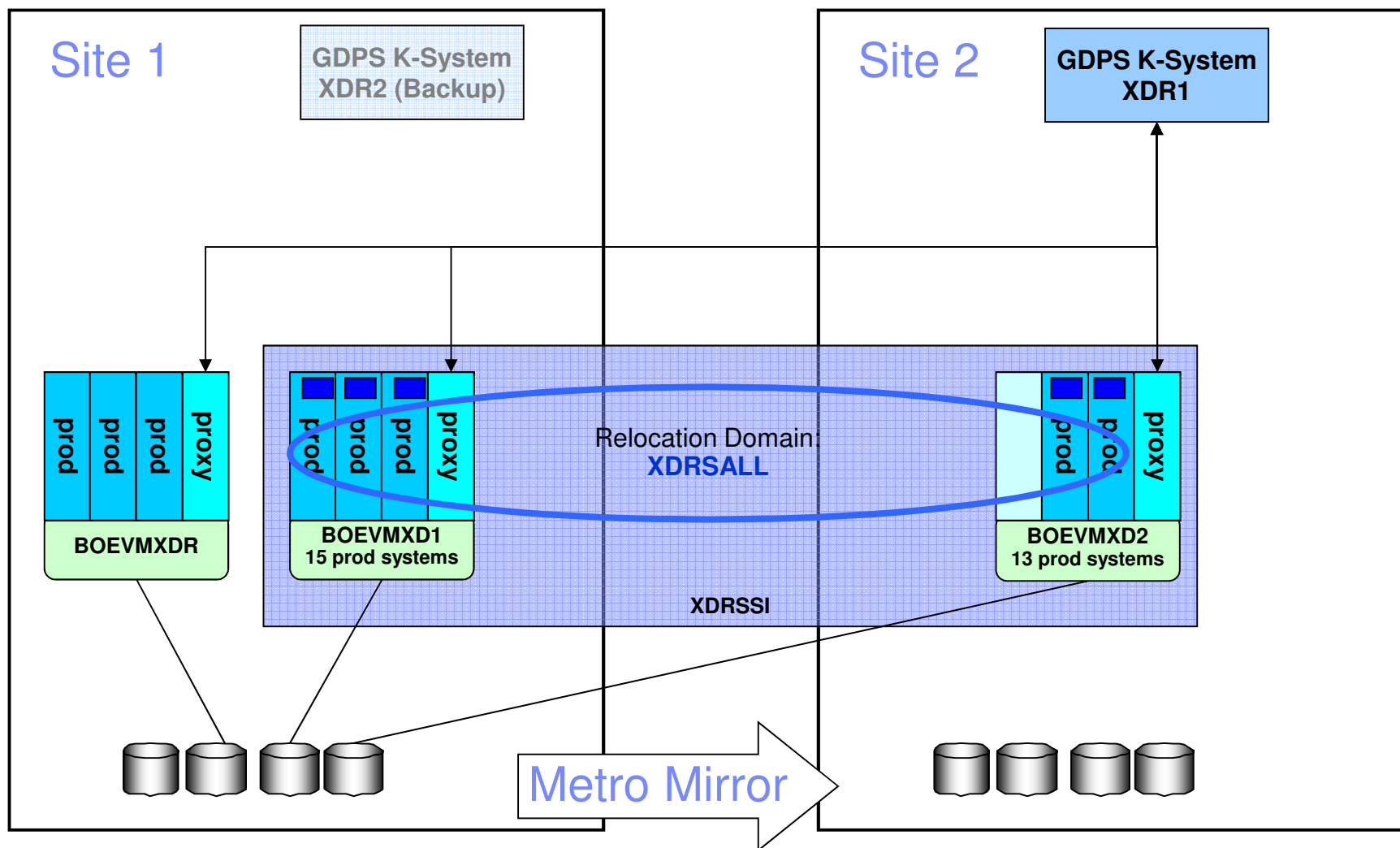
Scenario: Stop z/VM with implicit move away production guests



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Demo



Scenario 1: Stop a z/VM System in an SSI Cluster

Session C - [32 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

NV62	SA35	NM	GDPS3A	KSYS	Tivoli	NetView	IPWFL	JWEB	02/09/15	15:30:27
C	IPWFL	VPCEKAT:	CNM492I	-----						
C	IPWFL	VPCEKAT:	CNM492I	IPWFLPPT			EXTENDED		IPWFTNM1	
C	IPWFL	VPCEKAT:	CNM492I	AUTO1			EXTENDED		AAUTO1FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTO2			EXTENDED		AAUTO2FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTSSI			EXTENDED		AUTSSIFL	
C	IPWFL	VPCEKAT:	CNM492I	AUTBASE			EXTENDED		ATBASEFL	
C	IPWFL	VPCEKAT:	CNM492I	AUTREC			EXTENDED		AUTRECFL	
C	IPWFL	VPCEKAT:	CNM492I	AUTRPC			EXTENDED		AUTRPCFL	
C	IPWFL	VPCEKAT:	CNM492I	AUTXCF			EXTENDED		AUTXCFFL	
C	IPWFL	VPCEKAT:	CNM492I	AUTGEO			EXTENDED		AUTGEOFL	
C	IPWFL	VPCEKAT:	CNM492I	AUTGEO1			EXTENDED		ATGEO1FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTGEO2			EXTENDED		ATGEO2FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTGEO3			EXTENDED		ATGEO3FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTLXD			EXTENDED		AUTLXDFL	
C	IPWFL	VPCEKAT:	CNM492I	AUTLXW			EXTENDED		AUTLXWFL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK03			EXTENDED		AWRK03FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK05			EXTENDED		AWRK05FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK06			EXTENDED		AWRK06FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK08			EXTENDED		AWRK08FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK10			EXTENDED		AWRK10FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK11			EXTENDED		AWRK11FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK12			EXTENDED		AWRK12FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK13			EXTENDED		AWRK13FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK16			EXTENDED		AWRK16FL	
C	IPWFL	VPCEKAT:	CNM492I	AUTWRK17			EXTENDED		AWRK17FL	
C	IPWFL	VPCEKAT:	CNM492I	END DISPLAY						
C	IPWFL	D T issued								
???										
gdps										

MA C 30/00

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Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPPNLP GDPS - Disaster/Recovery System GDPS V3.R10.M5

System	=	XDR1	IPWFL	Primary Dasd	=	NOK	SITE1	SITE 1
Current Master	=	XDR1	IPWFL	Pri FB xDR	=	NOK	SITE1	
Parallel mode	=	YES						
HyperSwap F0/FB	=	DISABLED	YES					
Debug	=	ON						
DCM Status	=							

1 Dasd Remote Copy

3 Standard Actions

4 DCM Actions

6 Planned Actions

7 Sysplex Resource Management

8 Debug ON/OFF

9 View/Alter Definitions

H Health Checks

C Config Management

M Run Monitor1/Monitor3

Selection ==> 3

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MA C 22/018

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Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSTD1 Standard Actions XDR1

Actions: S Stop R ReIPL M odify Q QryxDR V SSI View
L Load X Reset A Activate D Deactivate U Dump

Sysname	IND	Status	IPLtype	LPAR	IPLmode	Auto	L-addr	Loadparm
— SITE1		SITE 1						
— XDR2	C	ACTIVE	NORMAL	XDR2	SITE1	YN	502D	410000M1
— BOEVMXDR		XDR-P	NORMAL	XDR	NORMAL	VL		
V BOEVMXD1	S	XDR-P	NORMAL	VMXD1	NORMAL	VL		
— SITE2		SITE 2						
— XDR1	C	MASTER	NORMAL	XDR1	SITE2	YN	5008	410000.1
— CF01		MANUAL	NORMAL	XDR1CFF	SITE2	NN		
— BOEVMXD2	S	XDR-P	NORMAL	VMXD2	NORMAL	VL		

1 CPC Ops 2 SSI Ops
Selection ==>
F1=Help F3=Return F6=Roll F11=Right

MA C 23/018

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSTDK xDR VM SSI Management - Single Cluster XDR1

Cluster Actions: D Relocation Domains

Member Actions: S Stop Q QryxDR

Receive: OK Dispatch: OK

Cluster	Mode	State
_ XDRSSI	STABLE	
SITE1		
S BOEVMXD1		JOINED
SITE2		
_ BOEVMXD2		JOINED

Cmd ===>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=All SSI

MA C 23/01:

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Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIV Relocation verification for STOPVM XDR1
Enter S to select a target system

Domain	Source	Target	Users to move
XDRSALL	BOEVMXD1	BOEVMXD2	12

Verify Requested xDR activity:

Start Move for Live Guest Relocation by reply Any or Move

- Any = Move the Guest to any member in the Relocation domain
- Move = Move the Guest relocate to the selected Target
- No = Continue the STOPVM without Guest Relocation

Cmd ==> ANY

F1=Help F3=Return F6=Roll F7=Up F8=Down

MA C 23/01:

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Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPFLFV Verify Planned Action XDR1

Requested action =====> Stop and Remove
 Of =====> BOEVMXD1

Total no of steps Current step

Steps: Est.time

SSIRELOC=MOVE DOMAIN(XDRSALL) SOURCE(BOEVMXD1) TARGET(BOEVMXD2)
 SYSPLEX=STOP BOEVMXD1

ARE YOU SURE REPLY YES or NO
 Selection =====> YES

F1=Help F3=Return F6=Roll

MA C 23/018

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Scenario 2: View z/VM guests in an SSI cluster and move them

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSTDK xDR VM SSI Management - Single Cluster XDR1

Cluster Actions: D Relocation Domains

Member Actions: S Stop Q QryxDR

Receive: OK Dispatch: OK

	Mode	State
Cluster		
D XDRSSI	STABLE	
SITE1		
_ BOEVMXD1		JOINED
SITE2		
_ BOEVMXD2		JOINED

Cmd ===>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=All SSI

MA C 23/01:

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Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 __XD1PRD25
Userid		__XD1PRD14 __XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31 __XD2PRD30
Userid		__XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains
F10=Left F11=Right F12=All Domains

MA C 22/01:

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Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIR xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD19 __XD1PRD18 __XD1PRD17 __XD1PRD16 __XD1PRD15
Userid		
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD2PRD48 __XD2PRD47 __XD2PRD45 __XD2PRD44 __XD2PRD43
Userid		

Right panel shown

Cmd ===>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains

F10=Left F11=Right F12=All Domains

MA C 22/01:

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File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

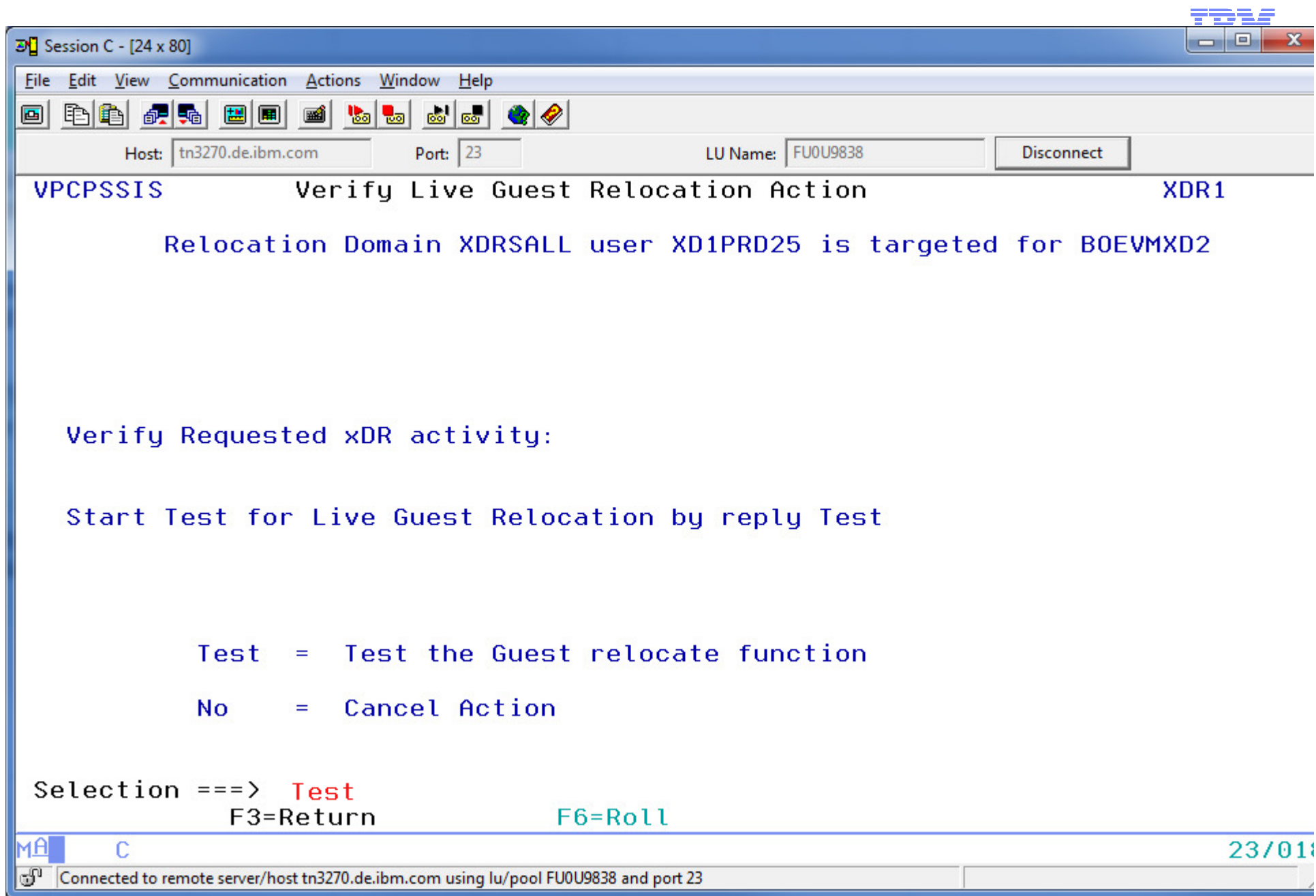
	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 TRXD1PRD25
Userid		__XD1PRD14 __XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31 __XD2PRD30
Userid		__XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains
F10=Left F11=Right F12=All Domains

MA C 22/01:

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Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 __XD1PRD25
Userid		__XD1PRD14 __XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31 __XD2PRD30
Userid		__XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==> sdf Test executing, check pf5 and SDF

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains

F10=Left F11=Right F12=All Domains

MA C 22/01:

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Session C - [32 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

SDF - XDR1GDPS GDPS Disaster/Recovery Readiness 02/09/15 16:28:04

Site 1 -----		Site 2 -----	
Automation	RemoteCopy	Automation	RemoteCopy
1/6(6)	1/10(11)	1/6(6)	1/10(11)
XDR2H	XDR2SCSI1	XDR1H	XDR1SCSI1
XDR2CPC	XDR2	XDR1IPL	XDR1
XDR2CPC	XDR2	XDR1AOM	XDR1
XDR2IPL	XDR2	XDR1INI	XDR1
XDR2INI	XDR2L	XDR1INI	XDR1
XDR2S	XDR2L	XDR1S	XDR1L
	XDR2D		XDR1D
	XDR2D		XDR1D
	XDR2D		XDR1D
	XDR2D		XDR1D

----- Trace Entries ----- 1/2(2)

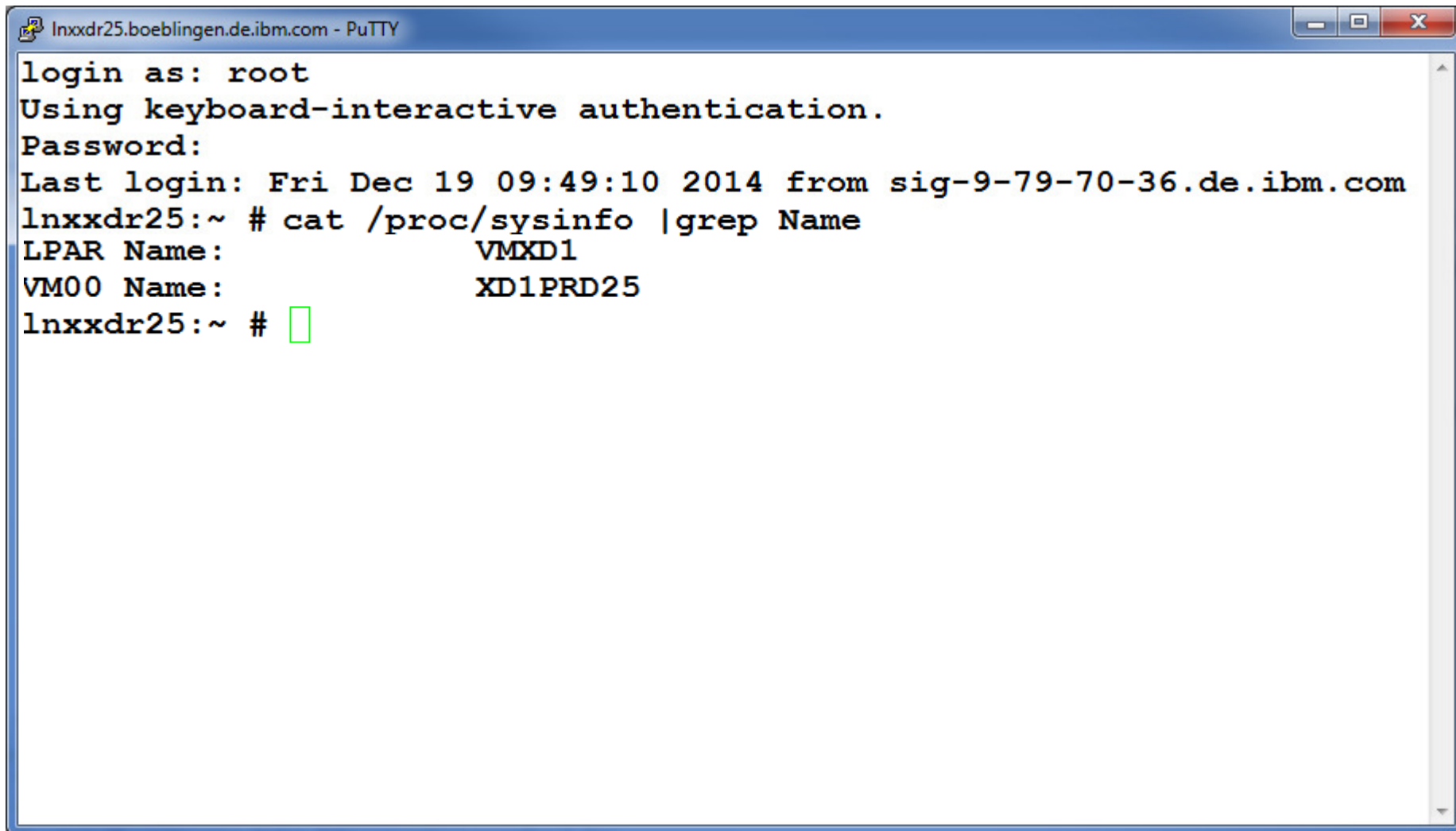
Time	Text
16:28:02	XDR BOEVMXD1 TEST RELOCATION SCRIPT STARTED
16:28:03	XDR XDRQRELO ACTION INITIALIZED (1) TRANSACTION
16:28:05	XDR XDRGRELO ACTION INITIALIZED (1) TRANSACTION
16:28:06	XDR TESTING THE RELOCATION OF USERID XD1PRD25 TO MEMBER BOEVMXD2 SUC
16:28:06	XDR COMMAND RELOCATION TEST INITIALIZED FOR USERID XD1PRD25
16:28:08	XDR XDRGRELO COMMAND RETURN CODE: 0
16:28:09	XDR XDRGRELO XDRSALL BOEVMXD1 IN SITE 1 ENDED
16:28:09	XDR BOEVMXD1 TEST RELOCATION SCRIPT ENDED

===>

1=Help 2=Detail 3=Return 6=Roll 9=Bottom 10=Previous 11=Next 12=Top
21=DTTRACE 22=DDASD 23=DAUT

MA C 30/00

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23



The image shows a PuTTY terminal window titled "lnxxdr25.boeblingen.de.ibm.com - PuTTY". The terminal displays the following text:

```
login as: root
Using keyboard-interactive authentication.
Password:
Last login: Fri Dec 19 09:49:10 2014 from sig-9-79-70-36.de.ibm.com
lnxxdr25:~ # cat /proc/sysinfo |grep Name
LPAR Name:          VMXD1
VM00 Name:          XD1PRD25
lnxxdr25:~ #
```

The prompt "lnxxdr25:~ #" is followed by a green cursor box.

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

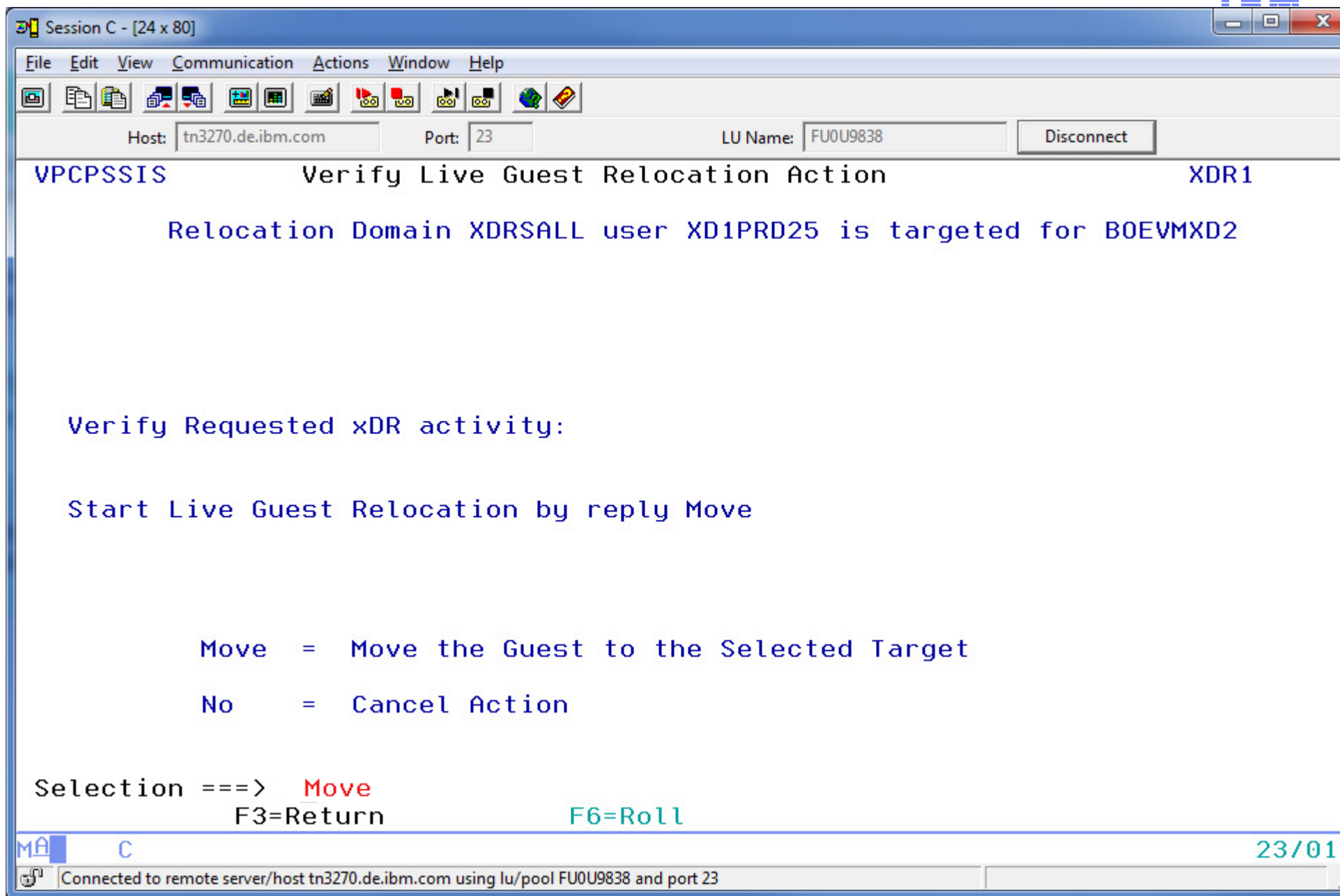
	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 GRXD1PRD25
Userid		__XD1PRD14 __XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31 __XD2PRD30
Userid		__XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ===>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains
F10=Left F11=Right F12=All Domains

MA C 08/06/14

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23



Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

SITE1	STATE	USER
Domain	OK	
__BOEVMXD1	XDRSALL	
Userid	JOINED	
		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 __XD1PRD25
		__XD1PRD14 __XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31 __XD2PRD30
Userid		__XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==> sdf Move executing, check pf5 and SDF

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains

F10=Left F11=Right F12=All Domains

MA C 22/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [32 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

SDF - XDR1GDPS GDPS Disaster/Recovery Readiness 02/09/15 16:38:53

Site 1 -----		Site 2 -----	
Automation	RemoteCopy	Automation	RemoteCopy
1/6(6)	1/10(11)	1/6(6)	1/10(11)
XDR2H	XDR2SCSI 1	XDR1H	XDR1SCSI 1
XDR2CPC	XDR2	XDR1IPL	XDR1
XDR2CPC	XDR2	XDR1AOM	XDR1
XDR2IPL	XDR2	XDR1INI	XDR1
XDR2INI	XDR2L	XDR1INI	XDR1
XDR2S	XDR2L	XDR1S	XDR1L
	XDR2D		XDR1D
	XDR2D		XDR1D
	XDR2D		XDR1D
	XDR2D		XDR1D

----- Trace Entries ----- 1/8(8)

Time	Text
16:38:13	XDR BOEVMXD1 MOVE RELOCATION SCRIPT STARTED
16:38:14	XDR XDRQRELO ACTION INITIALIZED (1) TRANSACTION
16:38:16	XDR XDRGRELO ACTION INITIALIZED (1) TRANSACTION
16:38:17	XDR COMMAND RELOCATION MOVE INITIALIZED FOR USERID XD1PRD25
16:38:21	XDR RELOCATING USERID XD1PRD25 TO MEMBER BOEVMXD2 FINISHED SUCCESSFUL
16:38:23	XDR XDRGRELO COMMAND RETURN CODE: 0
16:38:23	XDR XDRGRELO XDRSALL BOEVMXD1 IN SITE 1 ENDED
16:38:23	XDR BOEVMXD1 MOVE RELOCATION SCRIPT ENDED

===>

1=Help 2=Detail 3=Return 6=Roll 9=Bottom 10=Previous 11=Next 12=Top
21=DTTRACE 22=DDASD 23=DAUT

MA C 30/00

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 __XD1PRD25
Userid		__XD1PRD14 __XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31 __XD2PRD30
Userid		__XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains
F10=Left F11=Right F12=All Domains

MA C 22/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

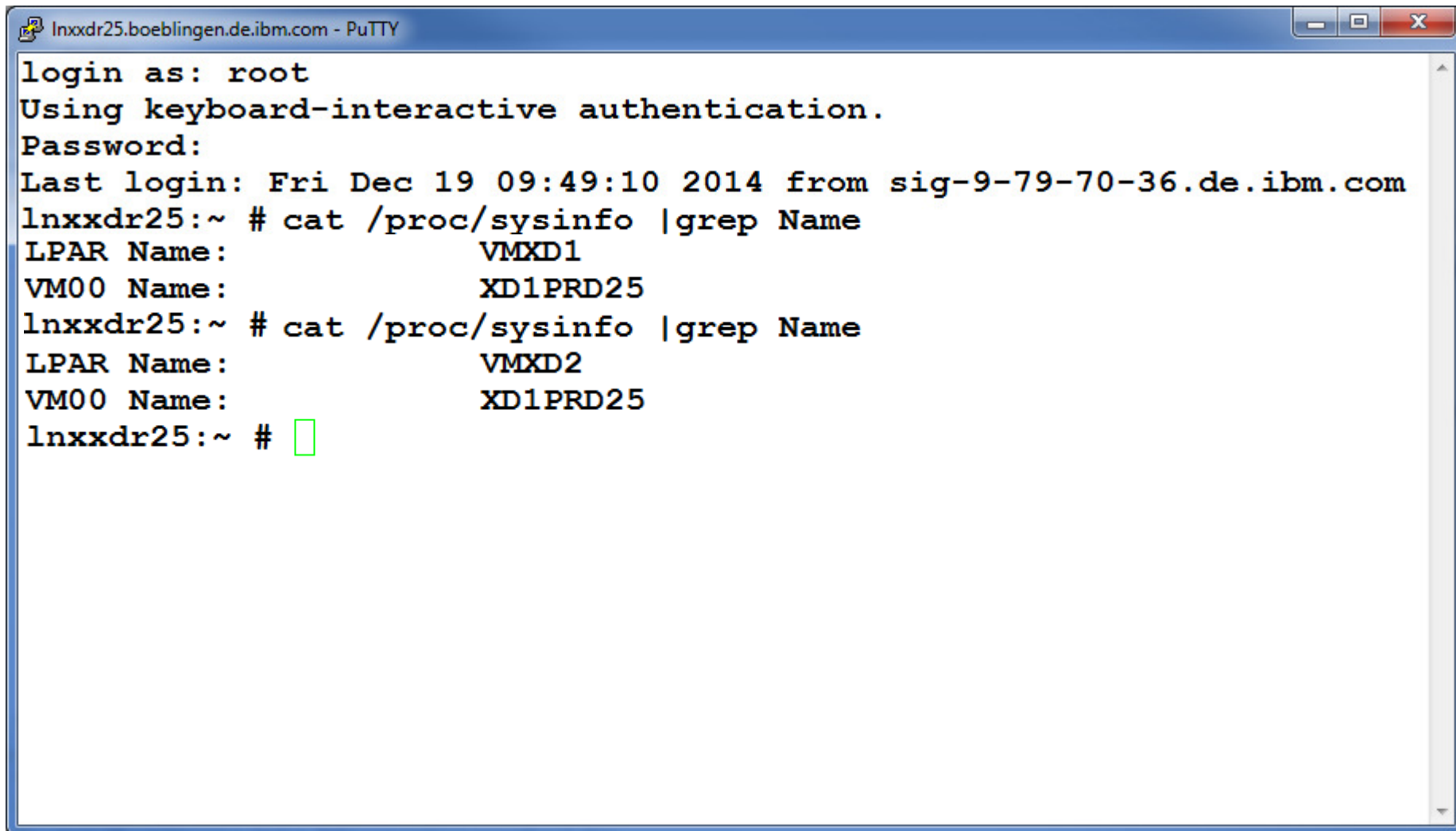
	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 __XD1PRD19
Userid		__XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD1PRD25 __XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31
Userid		__XD2PRD43 __XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains
F10=Left F11=Right F12=All Domains

MA C 22/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23



A screenshot of a PuTTY terminal window titled "lnxxdr25.boeblingen.de.ibm.com - PuTTY". The terminal shows a root login session. The user is prompted for a password, and the last login is recorded as "Fri Dec 19 09:49:10 2014 from sig-9-79-70-36.de.ibm.com". The user then runs the command "cat /proc/sysinfo |grep Name" twice, displaying system information for LPAR and VM00. The terminal ends with a prompt and a green cursor.

```
login as: root
Using keyboard-interactive authentication.
Password:
Last login: Fri Dec 19 09:49:10 2014 from sig-9-79-70-36.de.ibm.com
lnxxdr25:~ # cat /proc/sysinfo |grep Name
LPAR Name:          VMXD1
VM00 Name:          XD1PRD25
lnxxdr25:~ # cat /proc/sysinfo |grep Name
LPAR Name:          VMXD2
VM00 Name:          XD1PRD25
lnxxdr25:~ #
```

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

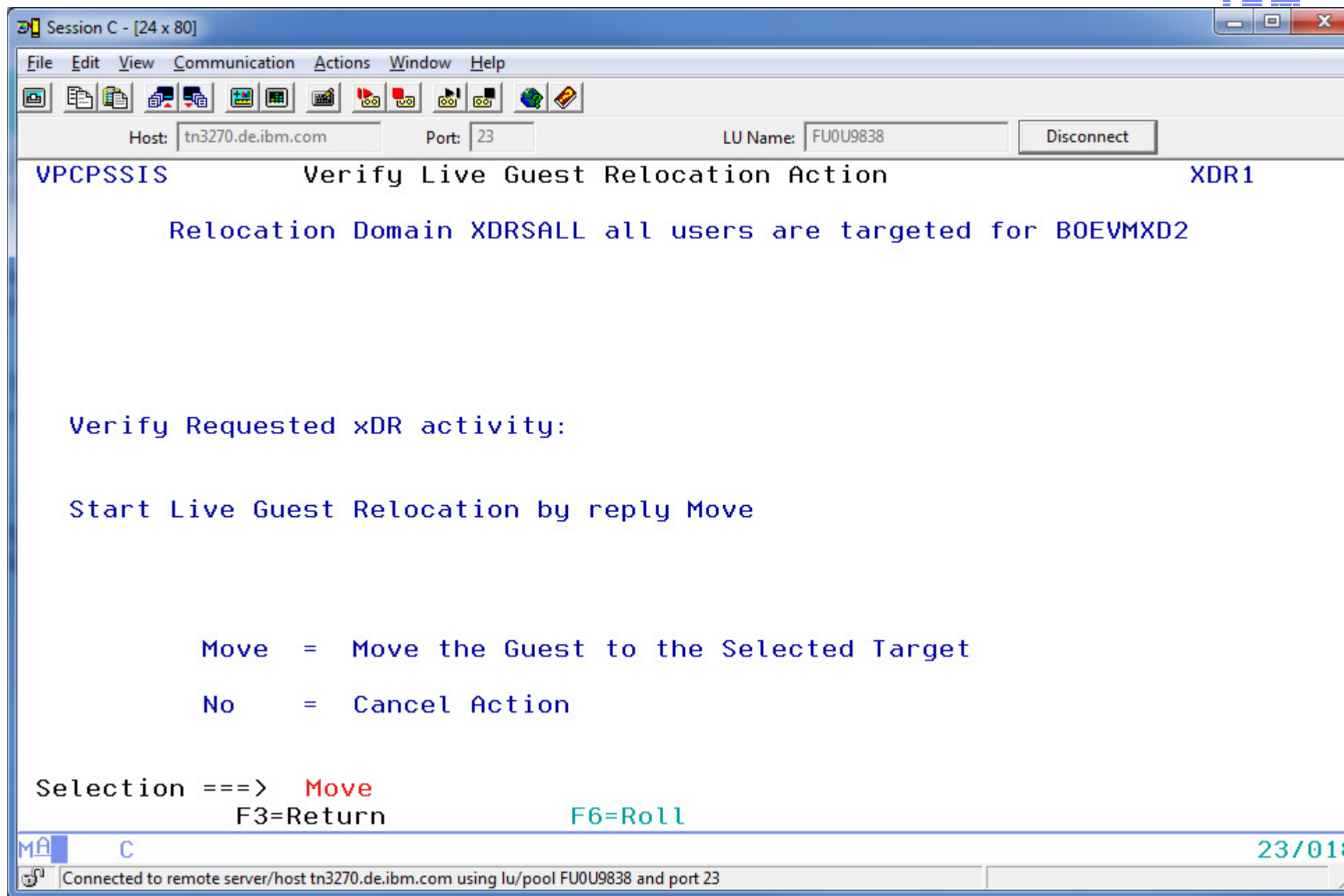
	STATE	USER
SITE1	OK	
Domain	XDRSALL	
GRB0EVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 __XD1PRD19
Userid		__XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__B0EVMXD2	JOINED	
Userid		__XD1PRD25 __XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31
Userid		__XD2PRD43 __XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains
F10=Left F11=Right F12=All Domains

MA C 07/00:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23



Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

SITE	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 __XD1PRD25
Userid		__XD1PRD14 __XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31 __XD2PRD30
Userid		__XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==> sdf Move executing, check pf5 and SDF

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains

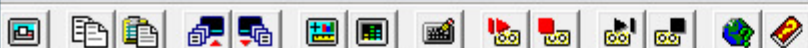
F10=Left F11=Right F12=All Domains

MA C 22/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [32 x 80]

File Edit View Communication Actions Window Help



Host: tn3270.de.ibm.com

Port: 23

LU Name: FU0U9838

Disconnect

SDF - XDR1GDPS GDPS Disaster/Recovery Readiness 02/09/15 16:57:40

Site 1 -----		Site 2 -----	
Automation	RemoteCopy	Automation	RemoteCopy
1/7(7)	1/10(11)	1/6(6)	1/10(11)
XDR2H	XDR2SCSI1	XDR1H	XDR1SCSI1
XDR2CPC	XDR2	XDR1IPL	XDR1
XDR2CPC	XDR2	XDR1AOM	XDR1
XDR2IPL	XDR2	XDR1INI	XDR1
XDR2AOM	XDR2L	XDR1INI	XDR1
XDR2INI	XDR2L	XDR1S	XDR1L
XDR2S	XDR2D		XDR1D
	XDR2D		XDR1D
	XDR2D		XDR1D
	XDR2D		XDR1D

----- Trace Entries ----- 1/7(7)

Time	Text
16:57:35	XDR BOEVMXD1 USER XD1PRD10 IN DOMAIN XDRSALL MOVED TO BOEVMXD2
16:57:06	XDR BOEVMXD1 MOVE RELOCATION SCRIPT STARTED
16:57:07	XDR XDRQRELO ACTION INITIALIZED (1) TRANSACTION
16:57:09	XDR XDRGRELA ACTION INITIALIZED (1) TRANSACTION
16:57:40	XDR XDRGRELA COMMAND RETURN CODE: 0
16:57:40	XDR XDRGRELA XDRSALL BOEVMXD1 IN SITE 1 ENDED
16:57:40	XDR BOEVMXD1 MOVE RELOCATION SCRIPT ENDED

==>

1=Help 2=Detail 3=Return

6=Roll

9=Bottom 10=Previous 11=Next 12=Top

21=DTRACE 22=DDASD 23=DAUT

MA C

19/02

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 __XD1PRD19
Userid		__XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD1PRD25 __XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31
Userid		__XD2PRD43 __XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains
F10=Left F11=Right F12=All Domains

MA C 22/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

	STATE	USER							
SITE1	OK								
Domain	XDRSALL								
__BOEVMXD1	JOINED								
Userid									
SITE2	OK								
Domain	XDRSALL								
__BOEVMXD2	JOINED								
Userid			__XD1PRD10	__XD1PRD11	__XD1PRD12	__XD1PRD13	__XD1PRD14		
Userid			__XD1PRD26	__XD1PRD27	__XD1PRD28	__XD1PRD29	__XD1PRD25		
Userid			__XD2PRD48	__XD2PRD47	__XD2PRD45	__XD2PRD44	__XD2PRD43		

Cmd ===>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains

F10=Left F11=Right F12=All Domains

MA C 22/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Scenario 3: Move guests using GDPS scripts

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		
		__XD1PRD10 __XD1PRD11 __XD1PRD12 __XD1PRD13 __XD1PRD14
		__XD1PRD26 __XD1PRD27 __XD1PRD28 __XD1PRD29 __XD1PRD25
		__XD2PRD48 __XD2PRD47 __XD2PRD45 __XD2PRD44 __XD2PRD43

Cmd ===>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains

F10=Left F11=Right F12=All Domains

MA C 22/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSTDK xDR VM SSI Management - Single Cluster XDR1

Cluster Actions: D Relocation Domains

Member Actions: S Stop Q QryxDR

Receive: OK Dispatch: OK

	Mode	State
Cluster		
_ XDRSSI	STABLE	
SITE1		
_ BOEVMXD1		JOINED
SITE2		
_ BOEVMXD2		JOINED

Cmd ===>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=All SSI

MA C 23/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSTD1 Standard Actions XDR1

Actions: S Stop R ReIPL M odify Q QryxDR V SSI View
 L Load X Reset A Activate D Deactivate U Dump

Sysname	IND	Status	IPLtype	LPAR	IPLmode	Auto	L-addr	Loadparm
SITE1		SITE 1						
XDR2	C	ACTIVE	NORMAL	XDR2	SITE1	YN	502D	410000M1
BOEVMXDR		XDR-P	NORMAL	XDR	NORMAL	VL		
BOEVMXD1	S	XDR-P	NORMAL	VMXD1	NORMAL	VL		
SITE2		SITE 2						
XDR1	C	MASTER	NORMAL	XDR1	SITE2	YN	5008	410000.1
CF01		MANUAL	NORMAL	XDR1CFF	SITE2	NN		
BOEVMXD2	S	XDR-P	NORMAL	VMXD2	NORMAL	VL		

1 CPC Ops 2 SSI Ops
 Selection ==>
 F1=Help F3=Return F6=Roll SSIVIEW Done F11=Right

MA C 23/018

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPPNLP GDPS - Disaster/Recovery System GDPS V3.R10.M5

System	=	XDR1	IPWFL	Primary Dasd	=	NOK	SITE1	SITE 1
Current Master	=	XDR1	IPWFL	Pri FB xDR	=	NOK	SITE1	
Parallel mode	=	YES						
HyperSwap F0/FB	=	DISABLED	YES					
Debug	=	ON						
DCM Status	=							

1 Dasd Remote Copy

3 Standard Actions

4 DCM Actions

6 Planned Actions

7 Sysplex Resource Management

8 Debug ON/OFF

9 View/Alter Definitions

H Health Checks

C Config Management

M Run Monitor1/Monitor3

Selection ==> 6

F1=Help F3=Return F6=Roll

MA C 22/018

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPFUS1 Planned Actions (User Defined) XDR1

V view X ecute

X	MOVE_HOME_XD1	'MOVE GUESTS HOME TO BOEVMXD1'
_	MOVE_HOME_XD2	'MOVE GUESTS HOME TO BOEVMXD2'
_	STARTSEC	'START SECONDARY'
_	SWAP_RESYNCH	'SWITCH HYPERSWAP RESYNCH'
_	SWAP_SUSPEND	'SWITCH HYPERSWAP SUSPEND'
_	SWAP_TERMINATE	'SWITCH HYPERSWAP TERMINATE'

Selection ==>

F1=Help F3=Return F6=Roll

F7=Up F8=Down

MA C 05/00:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPFLFV Verify Planned Action XDR1

Requested action =====> MOVE_HOME_XD1
Of =====>

Total no of steps 2 Current step 1

Steps: Est.time

COMM='MOVE GUESTS HOME TO BOEVMXD1'
SSIRELOC='MOVE DOMAIN(XDRSALL) SOURCE(BOEVMXD2) TARGET(BOEVM
- XD1) USER(XD1*)'

ARE YOU SURE REPLY YES or NO
Selection ==> YES

F1=Help F3=Return F6=Roll

MA C 23/018

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPFUS1 Planned Actions (User Defined) XDR1

V view X ecute

—	MOVE_HOME_XD1	'MOVE GUESTS HOME TO BOEVMXD1'
—	MOVE_HOME_XD2	'MOVE GUESTS HOME TO BOEVMXD2'
—	STARTSEC	'START SECONDARY'
—	SWAP_RESYNCH	'SWITCH HYPERSWAP RESYNCH'
—	SWAP_SUSPEND	'SWITCH HYPERSWAP SUSPEND'
—	SWAP_TERMINATE	'SWITCH HYPERSWAP TERMINATE'

Action initiated, check SDF

Selection ==> sdf_

F1=Help F2=Copy F3=Return F6=Roll
F7=Up F8=Down

21 MA C 22/

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [32 x 80]

File Edit View Communication Actions Window Help



Host: tn3270.de.ibm.com

Port: 23

LU Name: FU0U9838

Disconnect

SDF - XDR1GDPS

GDPS Disaster/Recovery Readiness

02/09/15 17:19:37

Site 1 -----

Automation

1/6(6)

RemoteCopy

1/10(11)

XDR2H

XDR2CPC

XDR2CPC

XDR2IPL

XDR2INI

XDR2S

XDR2SCSI1

XDR2

XDR2

XDR2

XDR2L

XDR2L

XDR2D

XDR2D

XDR2D

XDR2D

Site 2 -----

Automation

1/6(6)

RemoteCopy

1/10(11)

XDR1H

XDR1IPL

XDR1AOM

XDR1INI

XDR1INI

XDR1S

XDR1SCSI1

XDR1

XDR1

XDR1

XDR1

XDR1L

XDR1D

XDR1D

XDR1D

XDR1D

----- Trace Entries ----- 1/9(9)

Time

Text

17:19:00 MOVE_HOME_XD1 PLANNED/STANDARD ACTION STARTED

17:19:30 XDR BOEVMXD2 15 MOVE VMRELOCATION EXECUTED OUT OF TOTAL 15

17:19:30 XDR BOEVMXD2 USER XD1PRD25 IN DOMAIN XDRSALL MOVED TO BOEVMXD1

17:19:00 SSIRELOC='MOVE DOMAIN(XDRSALL) SOURCE(BOEVMXD2) TARGET(BOEVMXD1) USEF

17:19:35 XDR XDRGRELA COMMAND RETURN CODE: 0

17:19:35 SSIRELOC='MOVE DOMAIN(XDRSALL) SOURCE(BOEVMXD2) TARGET(BOEVMXD1) USEF

17:19:35 MOVE_HOME_XD1 PLANNED/STANDARD ACTION ENDED

17:19:35 XDR XDRQRELO ACTION INITIALIZED (1) TRANSACTION

17:19:35 XDR XDRGRELA ACTION INITIALIZED (1) TRANSACTION

==>

1=Help 2=Detail 3=Return

6=Roll

9=Bottom

10=Previous 11=Next 12=Top

21=DTRACE 22=DDASD 23=DAUT

MA C

19/023

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPFUS1 Planned Actions (User Defined) XDR1

V iew X ecute

—	MOVE_HOME_XD1	'MOVE GUESTS HOME TO BOEVMXD1'
—	MOVE_HOME_XD2	'MOVE GUESTS HOME TO BOEVMXD2'
—	STARTSEC	'START SECONDARY'
—	SWAP_RESYNCH	'SWITCH HYPERSWAP RESYNCH'
—	SWAP_SUSPEND	'SWITCH HYPERSWAP SUSPEND'
—	SWAP_TERMINATE	'SWITCH HYPERSWAP TERMINATE'

Selection ==>

F1=Help F3=Return F6=Roll

F7=Up F8=Down

MA C 22/018

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPPNLP GDPS - Disaster/Recovery System GDPS V3.R10.M5

System	=	XDR1	IPWFL	Primary Dasd	=	NOK	SITE1	SITE 1
Current Master	=	XDR1	IPWFL	Pri FB xDR	=	NOK	SITE1	
Parallel mode	=	YES						
HyperSwap F0/FB	=	DISABLED	YES					
Debug	=	ON						
DCM Status	=							

1 Dasd Remote Copy

3 Standard Actions

4 DCM Actions

6 Planned Actions

7 Sysplex Resource Management

8 Debug ON/OFF

9 View/Alter Definitions

H Health Checks

C Config Management

M Run Monitor1/Monitor3

Selection ==> 3

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MA C 22/018

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSTD1 Standard Actions XDR1

Actions: S Stop R ReIPL M odify Q QryxDR V SSI View
L Load X Reset A Activate D Deactivate U Dump

Sysname	IND	Status	IPLtype	LPAR	IPLmode	Auto	L-addr	Loadparm
— SITE1		SITE 1						
— XDR2	C	ACTIVE	NORMAL	XDR2	SITE1	YN	502D	410000M1
— BOEVMXDR		XDR-P	NORMAL	XDR	NORMAL	VL		
V BOEVMXD1	S	XDR-P	NORMAL	VMXD1	NORMAL	VL		
— SITE2		SITE 2						
— XDR1	C	MASTER	NORMAL	XDR1	SITE2	YN	5008	410000.1
— CF01		MANUAL	NORMAL	XDR1CFF	SITE2	NN		
— BOEVMXD2	S	XDR-P	NORMAL	VMXD2	NORMAL	VL		

1 CPC Ops 2 SSI Ops
Selection ==>
F1=Help F3=Return F6=Roll F11=Right

MA C 23/018

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSTDK xDR VM SSI Management - Single Cluster XDR1

Cluster Actions: D Relocation Domains

Member Actions: S Stop Q QryxDR

Receive: OK Dispatch: OK

	Mode	State
Cluster		
D XDRSSI	STABLE	
SITE1		
_ BOEVMXD1		JOINED
SITE2		
_ BOEVMXD2		JOINED

Cmd ===>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=All SSI

MA C 23/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

Session C - [24 x 80]

File Edit View Communication Actions Window Help

Host: tn3270.de.ibm.com Port: 23 LU Name: FU0U9838 Disconnect

VPCPSSIL xDR Relocation Domain Status for SSI Cluster XDRSSI XDR1

Actions: GR Guest Reloc TR Test Guest Reloc Receive: OK Dispatch: OK

	STATE	USER
SITE1	OK	
Domain	XDRSALL	
__BOEVMXD1	JOINED	
Userid		__XD1PRD29 __XD1PRD28 __XD1PRD27 __XD1PRD26 __XD1PRD25
Userid		__XD1PRD14 __XD1PRD13 __XD1PRD12 __XD1PRD11 __XD1PRD10
SITE2	OK	
Domain	XDRSALL	
__BOEVMXD2	JOINED	
Userid		__XD2PRD49 __XD2PRD46 __XD2PRD32 __XD2PRD31 __XD2PRD30
Userid		__XD2PRD42 __XD2PRD41 __XD2PRD40

Cmd ==>

F1=Help F3=Return F5=Refresh F6=Roll F7=Up F8=Down F9=Active Domains
F10=Left F11=Right F12=All Domains

MA C 22/01:

Connected to remote server/host tn3270.de.ibm.com using lu/pool FU0U9838 and port 23

End of Demo

GDPS Control Script

- Test a relocation
SSIRELOC ='TEST [DOMAIN(domain_name|ALL)]
SOURCE(sysname)[TARGET(sysname|ANY)] [USER(userid|ALL)]'
- Relocate a guest
SSIRELOC ='MOVE [DOMAIN(domain_name|ALL)]
SOURCE(sysname)[TARGET(sysname|ANY)] [USER(userid|ALL)]'
- Wildcards are possible for domain name and userid

GDPS Control Script Examples

Site Maintenance

Move all guests from site 1 to site 2

```
SSIRELOC = 'MOVE DOMAIN(PROD*)
SOURCE(VM11) TARGET(VM21) USER(ALL)
SSIRELOC = 'MOVE DOMAIN(PROD*)
SOURCE(VM12) TARGET(VM22) USER(ALL)
SYSPLEX = 'STOP ...'
```

End of Site Maintenance

Move guests home to site 1

```
SSIRELOC = 'MOVE DOMAIN(PROD*)
SOURCE(VM21) TARGET(VM11) USER(lnx1*)
SSIRELOC = 'MOVE DOMAIN(PROD*)
SOURCE(VM22) TARGET(VM12) USER(lnx1*)'
```

VM Maintenance

Move all guests away from VM11

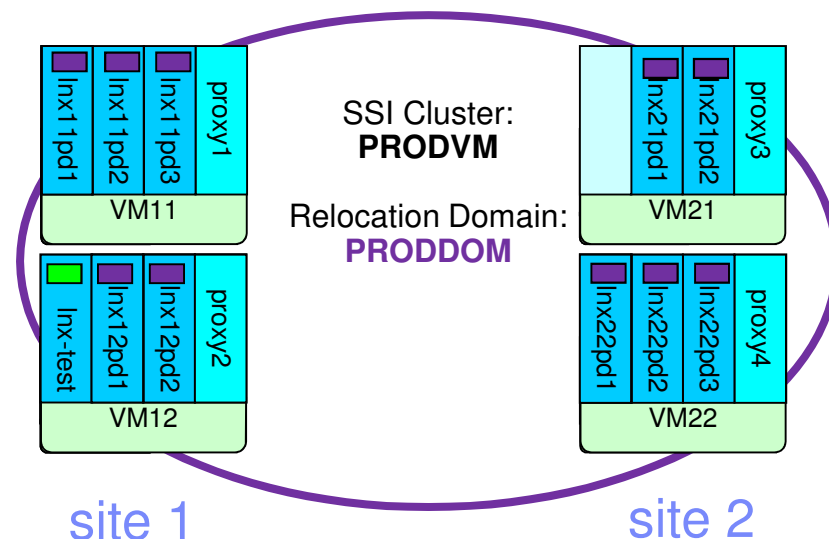
```
SSIRELOC = 'MOVE DOMAIN(PROD*)
SOURCE(VM11) TARGET(ANY) USER(ALL)'
```

Move guests home to VM11

```
SSIRELOC = 'MOVE DOMAIN(PROD*)
SOURCE(VM21) TARGET(VM11) USER(lnx11*)
SSIRELOC = 'MOVE DOMAIN(PROD*)
SOURCE(VM22) TARGET(VM11) USER(lnx11*)
SSIRELOC = 'MOVE DOMAIN(PROD*)
SOURCE(VM12) TARGET(VM11) USER(lnx11*)'
```

Move guests on same site from VM11 to VM12

```
SSIRELOC = 'MOVE DOMAIN(PROD*)
SOURCE(VM11) TARGET(VM12) USER(ALL)'
```



Recommendation:

- use naming conventions for guest systems in order to have "move home" scripts
e.g. <prefix><site index><member index>...
- With good naming conventions, one relocation domain containing all SSI members might be sufficient

Summary, Best Practices – Means to control SSI via GDPS

- Use Relocation Domains
 - select workload per type (test, production, development, ...)
 - restrict where guests can move to e.g. limit to a specified site, hardware
- Naming Convention: Relocation domain controlled by GDPS must have the same 4-character-prefix as the SSI Name
- Use Naming Conventions for guest names to be able to „move home“ via GDPS scripts
 - ➔ Allows to select guest names in GDPS scripts via wildcards
 - Examples:
 - guestname=<prefix><site index><vm index><workload><nr> e.g. lnx11dv1, lnx21pd2
Allows to select all guests on a site or guest independent of workload type
 - guestname=<workload><site index><vm index><var><nr> e.g. prd11lx1, dev21lx2
Allows to select guests per workload type – consider to use different relocation domains for that purpose
- Decide on number of members in a Relocation Domain
 - 4 members
 - Advantage: very flexible
 - Disadvantage: guest relocation operations require to specify target
 - 2 members
 - Advantage: no need to specify a target in case of guest relocation
 - Disadvantage: loss of flexibility

Questions?



Backup Slides