



# 智慧点 红动未来



2011 IBM主机软件高端客户年终大会





# 实现更高标准的灾备解决方案

---- 双活最新技术介绍

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IBM System z高级工程师



**智慧点**  **红动未来**

2011 IBM主机软件高端客户年终大会

## 内容

- 主机灾备解决方案回顾
- 双活概念与定位
- 双活最新技术方案介绍

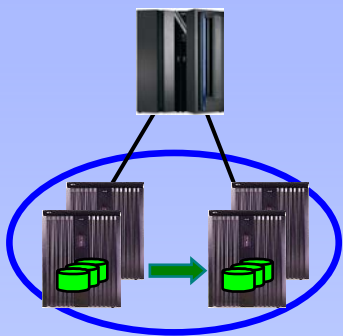
# 主机灾备解决方案回顾

# 主机灾备解决方案回顾 ---- GDPS家族

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**

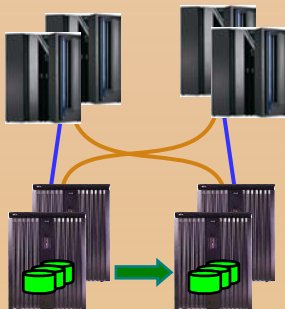


GDPS/HyperSwap Mgr  
RPO=0 & RTO=0

Continuous Availability / Disaster Recovery within a **Metropolitan** Region

**Two** Data Centers  
Systems remain active

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

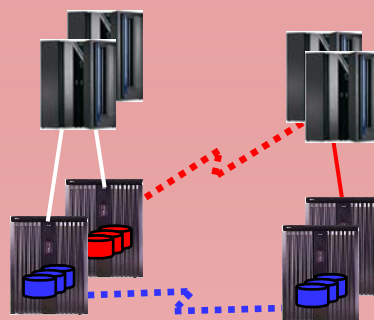


GDPS/PPRC  
RPO=0 & RTO<1 hr

Disaster Recovery at **Extended** Distance

Two Data Centers  
Rapid Systems Disaster Recovery with "**seconds**" of **Data Loss**

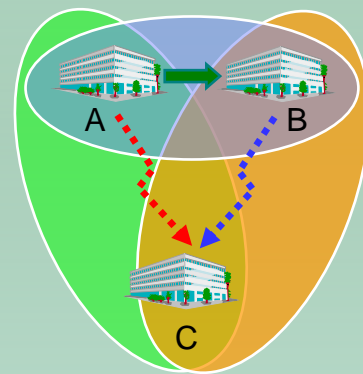
Disaster recovery for out of region interruptions



GDPS/GM & GDPS/XRC  
RPO secs & RTO <1 hr

Continuous Availability Regionally and Disaster Recovery Extended Distance

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



GDPS/MGM & GDPS/MzGM

RPO – Recovery Point Objective  
RTO – Recovery Time Objective

## GDPS/PPRC用户怎么做？

- GDPS/PPRC：是一种基于跨站点的Parallel Sysplex与同步磁盘复制技术（Metro-Mirror，即PPRC）的灾备解决方案，为用户提供同城距离内的业务连续性。
- GDPS/PPRC支持两种配置方式：
  - Active/Standby
  - Active/Active
- 一些实施GDPS/PPRC Active/Active配置的用户：
  - 关键数据都是用PPRC进行同步，且激活HyperSwap
  - CF Structure都做duplex处理
  - 由于光纤线传输的时延，会对联机的吞吐以及批量窗口造成影响，因此两个站点之间的距离一般不超过20KM。

## GDPS/XRC和GDPS/GM用户怎么做？

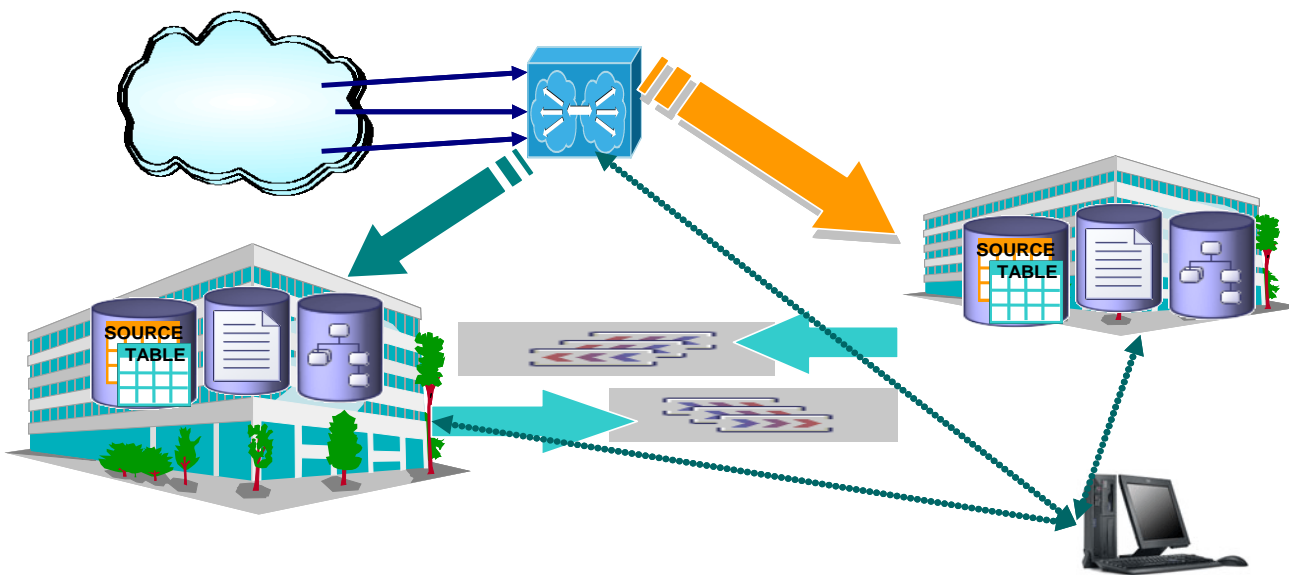
- GDPS/XRC和GDPS/GM：是一种基于异步磁盘复制技术的灾备解决方案，站点间没有距离限制。
- 所使用的异步磁盘复制技术要求在异地重启切换过去的负载，这个过程大约需要30-60分钟
  - 停机一致性处理
  - 交易一致性处理
- 问题：GDPS/XRC和GDPS/GM都无法达到秒级的异地恢复时间（RTO）

# 双活概念与定位

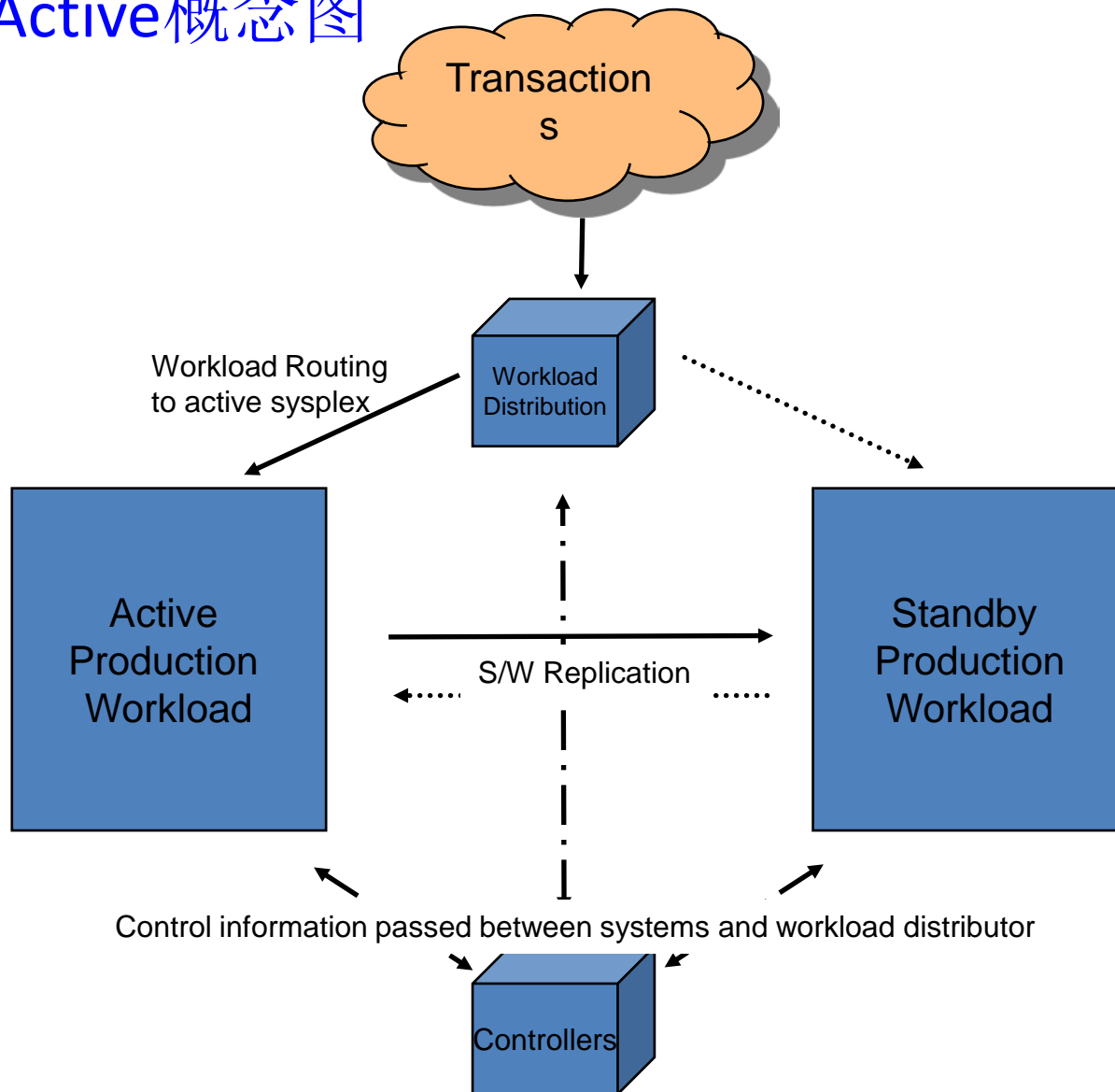


## Active/Active所解决的问题

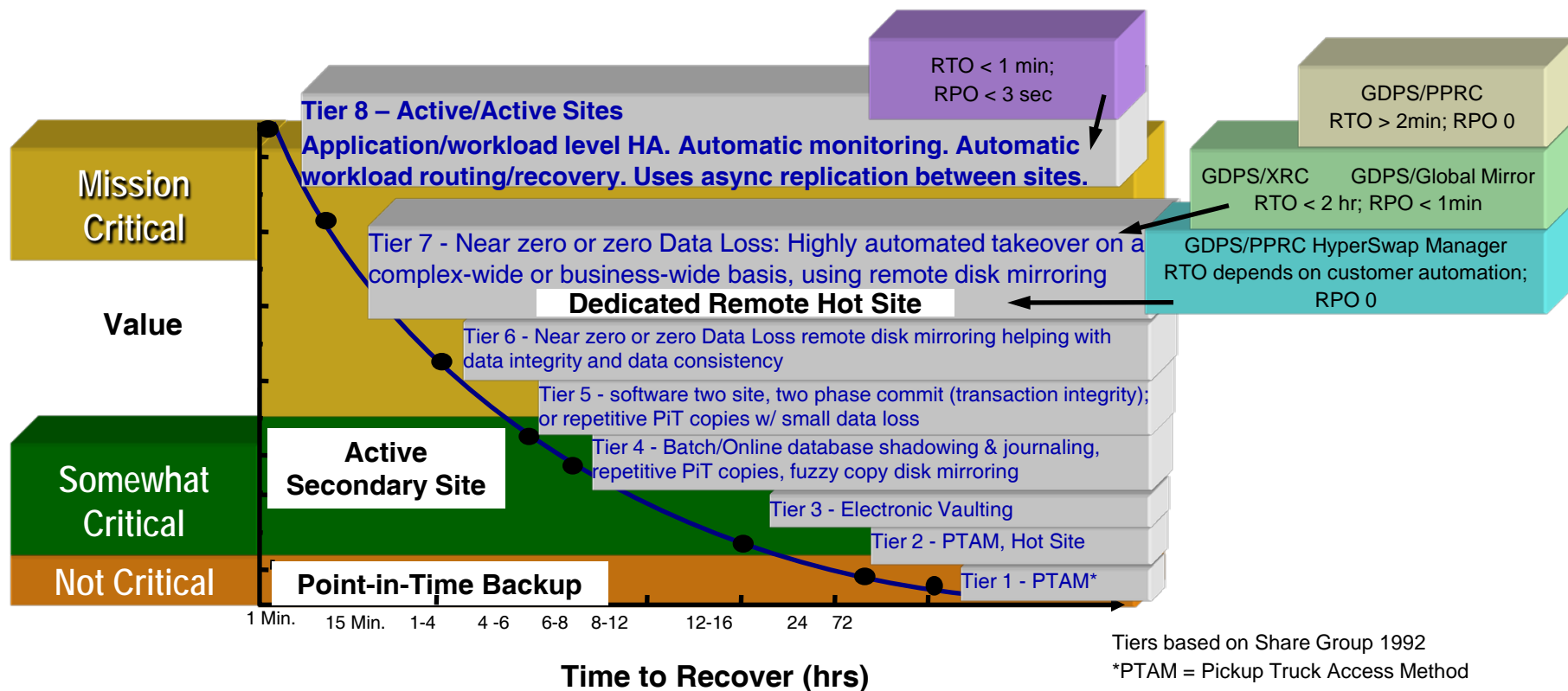
GDPS/PPRC	GDPS/XRC or GDPS/GM	Active/Active
<b>Failover model</b>	<b>Failover model</b>	<b>Near CA model</b>
<b>Recovery time &gt; 2 minutes</b>	<b>Recovery time &lt; 1 hour</b>	<b>Recovery time &lt; 1 minute</b>
<b>Distance &lt; 20 KM</b>	<b>Unlimited distance</b>	<b>Unlimited distance</b>



# Active/Active概念图



# Tiers of Disaster Recovery



Failover models can only achieve so much in improving RTO

# 双活最新技术方案介绍

## IBM® GDPS® Active/Active continuous availability发布

- IBM United States Services Announcement 611-023, dated May 24, 2011
  - <http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?infotype=AN&subtype=CA&htmlfid=897/ENUS611-023&appname=USN>
- IBM® GDPS® active/active continuous availability is the *next generation of GDPS* and a fundamental paradigm shift for *near continuous availability solutions*.

## 发布要点之：概览

- GDPS Active/Active:
  - 建立在无距离限制的两个站点之上
  - 两个站点同时运行同样的应用，使用同样的数据
  - 跨站点间负载监控与分发
  - 整合了一系列IBM产品与GDPS控制软件

## 发布要点之：Statement of Direction

- IBM intends to deliver, over time, additional configurations that comprise GDPS active/active continuous availability. In addition to [the Active/Standby configuration, which was announced today](#), IBM plans to make available the Active/Query configuration which will provide the ability to selectively query data in either site.

## GDPS Active/Active方案定位

- GDPS/Active-Active: 满足用户关键业务的异地快速恢复目标
  - 计划外站点切换的秒级业务恢复 (RTO)
  - 计划外站点切换的秒级数据丢失 (RPO)
  - 业务负载的不中断跨站点切换
  - 无任何距离限制
  - 并不意味着要取代本地高可用性方案 (如Parallel Sysplex方式的应用部署)

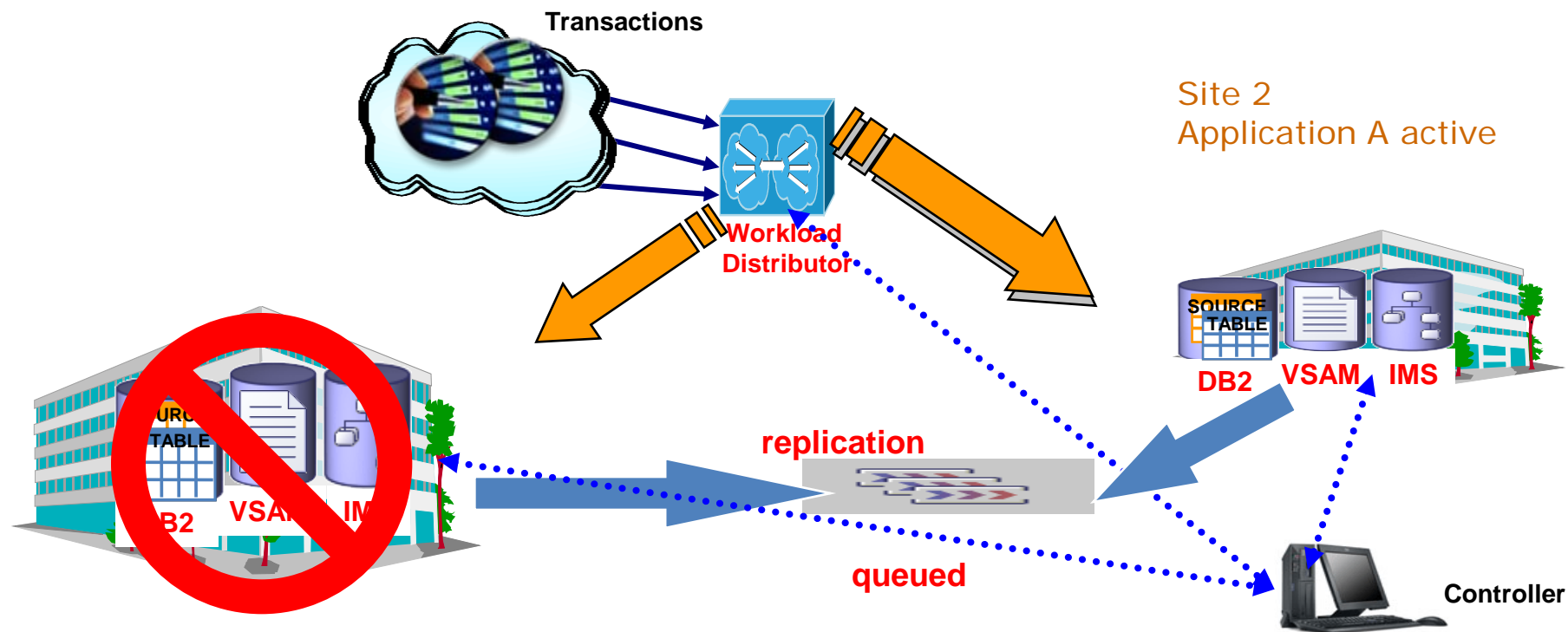


# Active/Standby配置

- Static routing
- Automatic failover

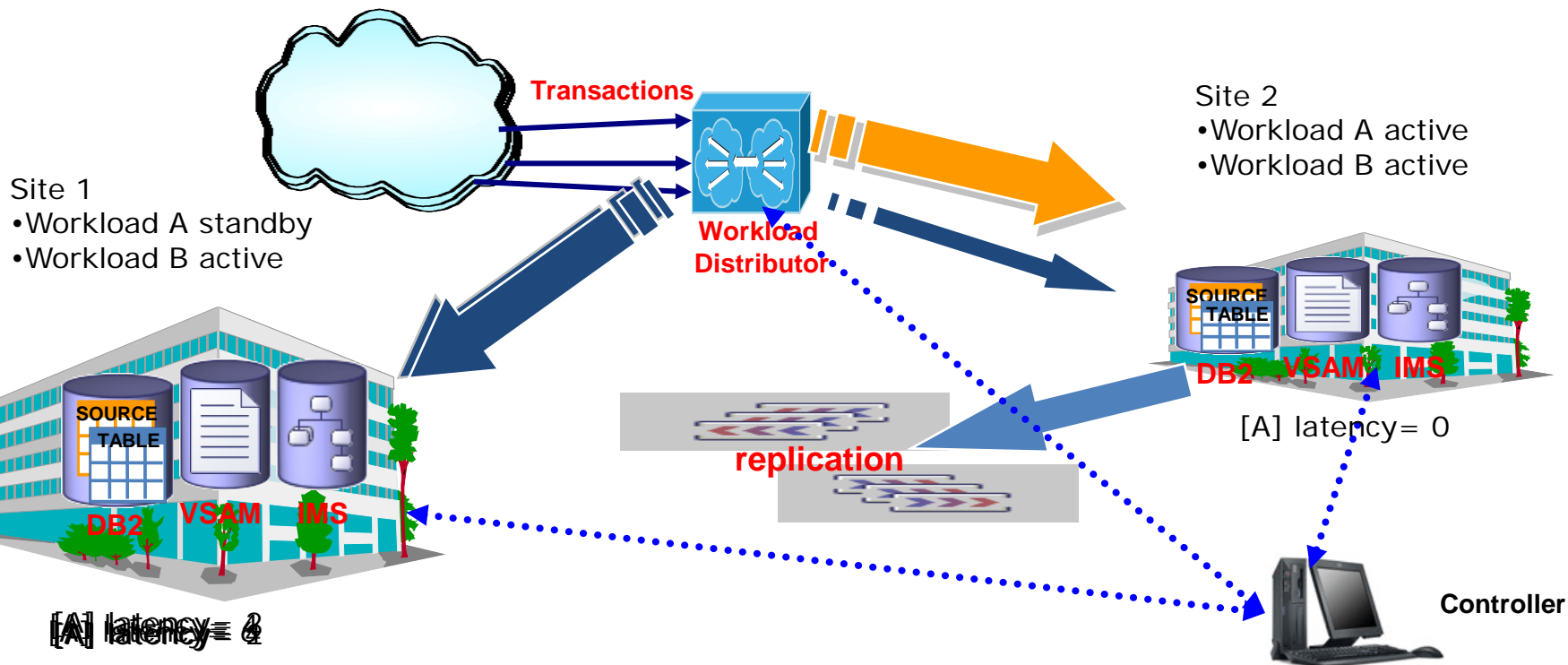
Site 1  
Application A active

Site 2  
Application A standby

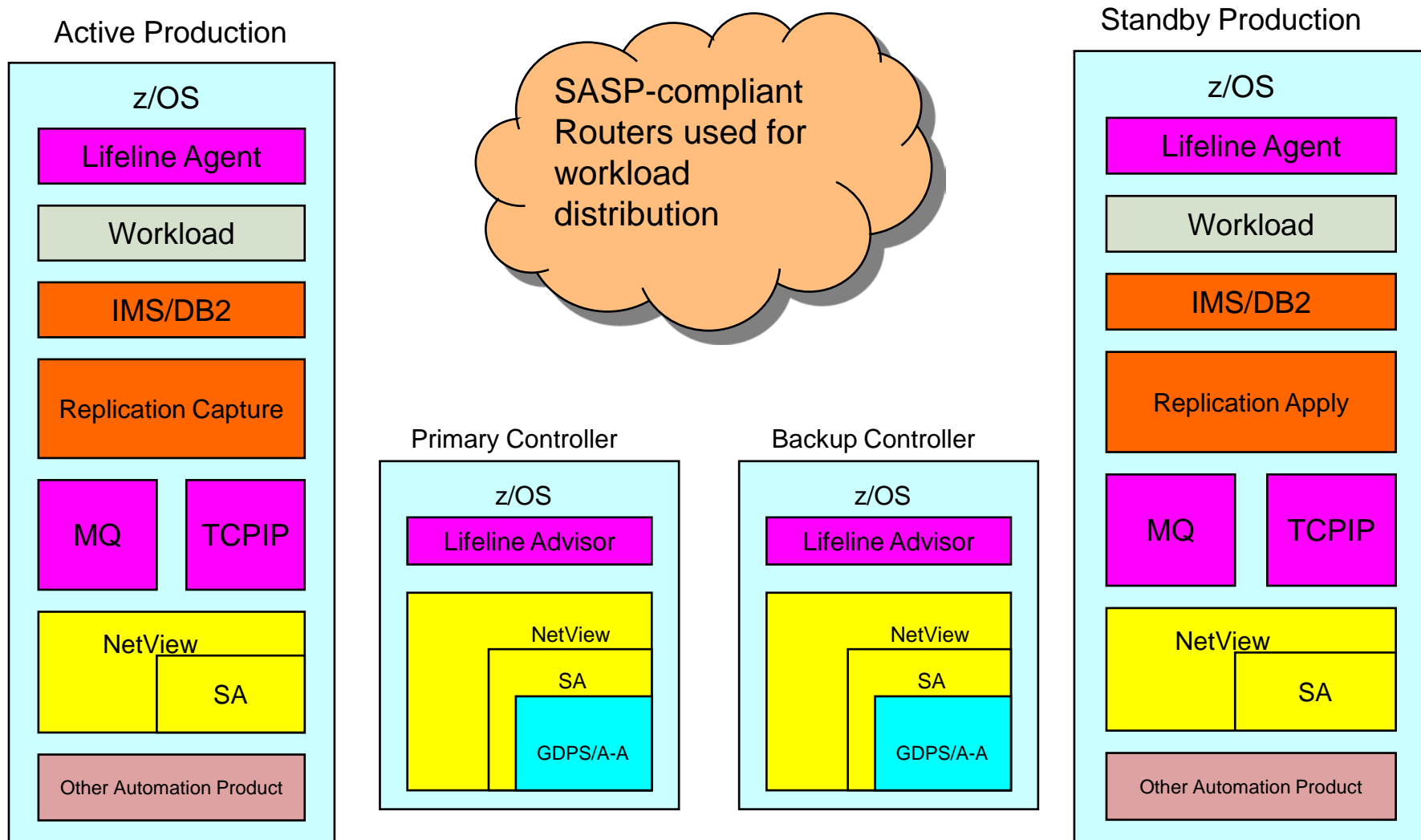


# Active/Query配置

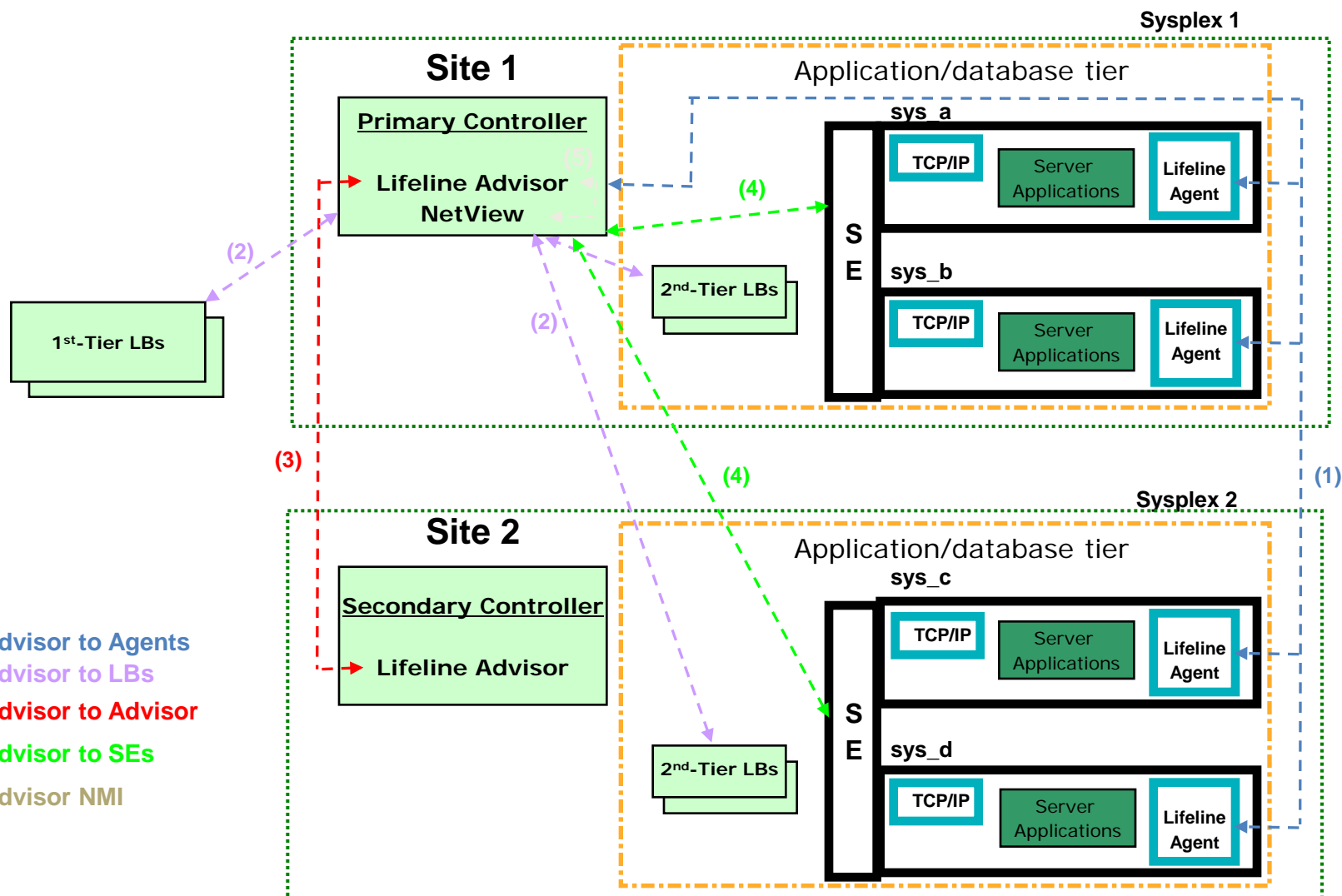
- Workload A (gold) has Active/Standby configuration (R/W)
- Workload B (grey) has Active/Query configuration (R/O)
  - dependent on Workload A (Max Latency 5, Reset Latency 3)
  - Favor Site 1 (secondary site for Workload A)
  - Active on all sites, latency of dependent application affects routing



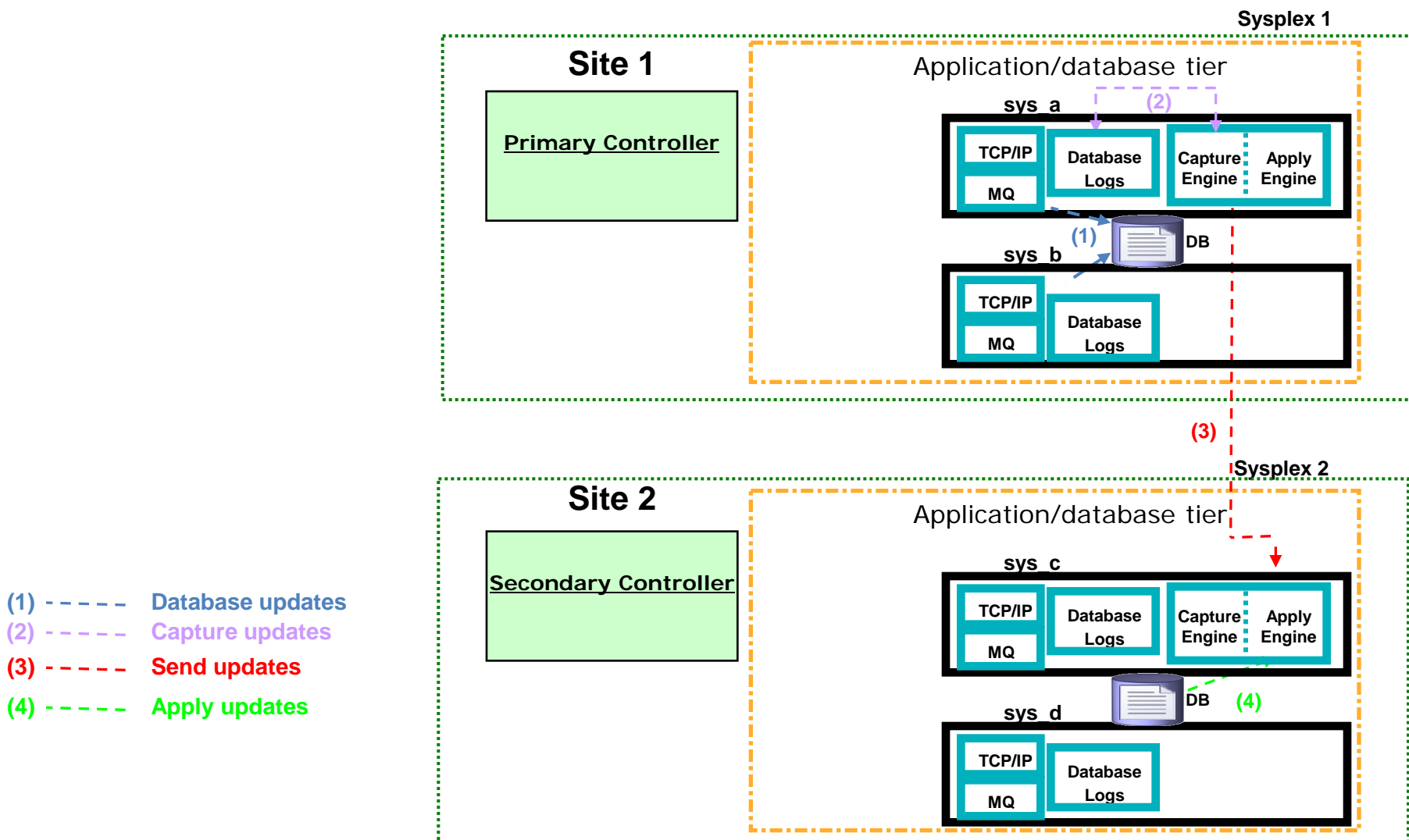
# 功能组件的部署



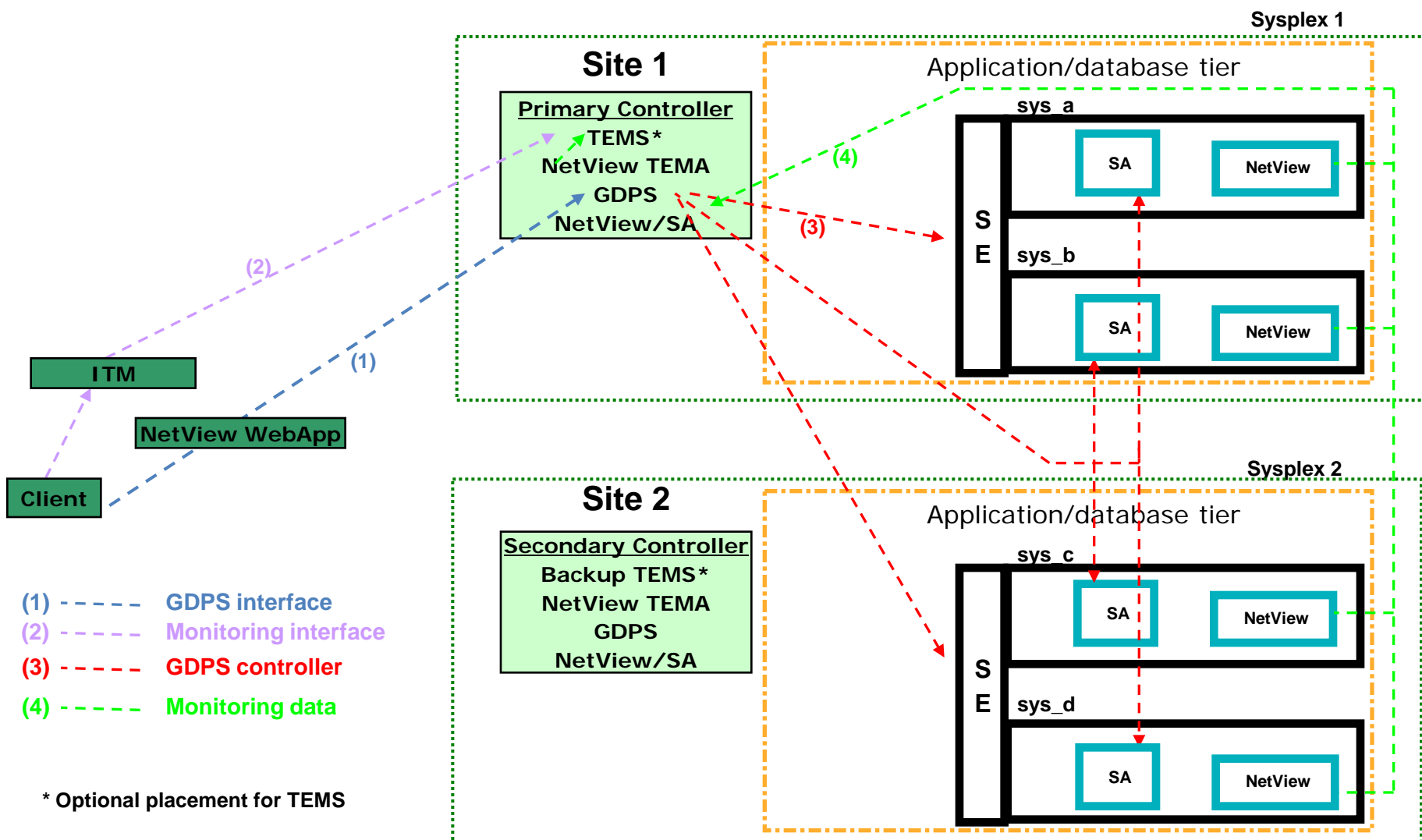
# Workload Distributor Structure



# Data Replication Structure



# Controller Structure



## 组成GDPS/Active-Active环境的软件

- Operating systems required/supported
  - z/OS V1R11 (including Tivoli Directory Server for z/OS)
- Applications/MiddleWare
  - DB2 for z/OS v9
  - IMS v11
  - WS MQ v7.0
- Replication
  - InfoSphere Replication Server (DB2) V10
  - InfoSphere IMS Replication for z/OS V10.1
- Management and monitoring
  - GDPS/Active-Active 1.1 (new)
  - NetView for z/OS Next
  - System Automation for z/OS Next
  - IBM Multi-site Workload Lifeline v1.1 (new)
  - IBM Tivoli Monitoring 6.2.2
  - OMEGAMON products (Optional for some details about subsystems)
    - OMEGAMON XE on z/OS v4.2.0
    - OMEGAMON XE for Mainframe Networks v4.2.0
    - OMEGAMON XE for Storage v4.2.0
    - OMEGAMON XE for DB2 Performance Expert (or Performance Monitor) on z/OS v4.2.0
    - OMEGAMON XE on CICS for z/OS v4.2.0
    - OMEGAMON XE on IMS v4.2.0
    - OMEGAMON XE for Messaging v7.0







謝謝

Thank  
You

谢谢



# Backup Charts

**Tivoli.**

## NetView for z/OS



Domain: A6P41

User Name: dave

Password: ••••••

OK



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## GDPS / Active-Active links

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## Controllers

## GDPS / Active-Active

WTORs

SDE

GDPS / A-A V1.R1.M0

DAVE

20 Oct 2011

20:48:55

A6P41

G4C1

GDPS Page: VPCWAACO

Refresh

Print Screen

Logoff

Help

## Controllers:

System/Domain	G4C1 / A6P41	Status	PRIMARY CONTROLLER
System/Domain	G5C1	Status	BACKUP CONTROLLER

## Commands:

Change MASTER

## Tivoli NetView for z/OS



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## Controllers

A6P41 / dave

## Controllers

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## GDPS / Active-Active

WTORs

SDF

GDPS / A-A V1.R1.M0

DAVE

20 Oct 2011

20:50:13

A6P41

G4C1

GDPS Page: VPCWPFYX

Return

Refresh

Print Screen

Logoff

Help

Load

Stop

Reset

Activate LPAR

Deactivate LPAR

Buttons locked, you cannot execute these commands against the system which you are logged in to.

## Selected IPLtype/mode

System	IPLtype	IPLmode	Loadaddr	LoadParm	Status
G4C1	NORMAL	NORMAL	2800	2807G4M	ACTIVE

## Modify IPLtype/IPLmode

Select

Modify

New

Delete

## Optional IPLtypes/modes for system: G4C1

IPLtype	IPLmode	Loadaddr	LoadParm
NORMAL	NORMAL	2800	2807G4M



## Tivoli NetView for z/OS



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Controllers

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## Controllers



## GDPS / Active-Active

WTOs

SDF

GDPS / A-A V1.R1.M0

DAVE

20 Oct 2011

20:50:53

A6P41

G4C1

GDPS Page: VPCWPFYX

Return

Refresh

Print Screen

Logoff

Help

Load

Stop

Reset

Activate LPAR

Deactivate LPAR

## Selected IPLtype/mode

System	IPLtype	IPLmode	Loadaddr	LoadParm	Status
G5C1	NORMAL	NORMAL	2820	2827G5M	UNKNOWN

## Modify IPLtype/IPLmode

Select

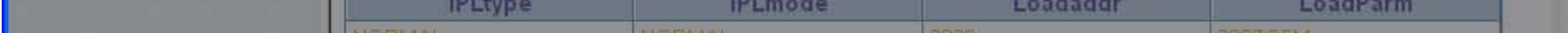
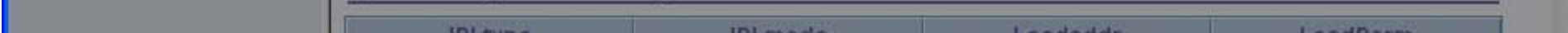
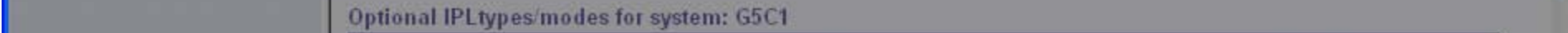
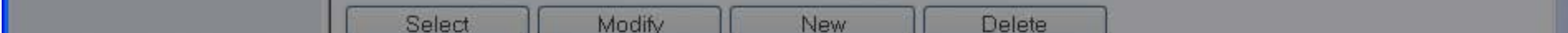
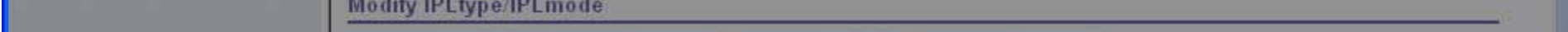
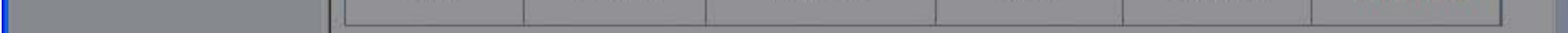
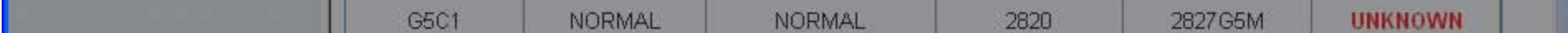
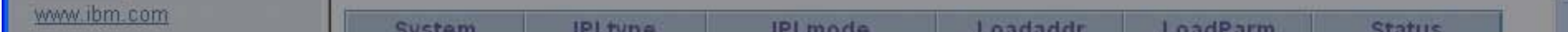
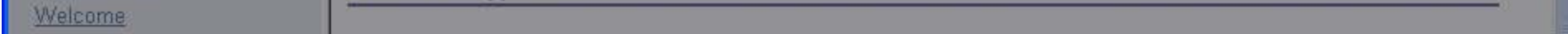
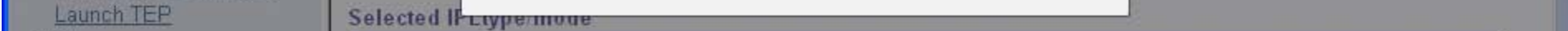
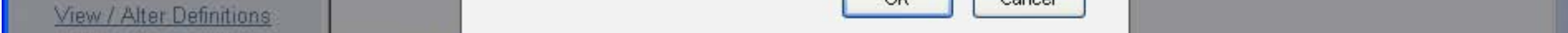
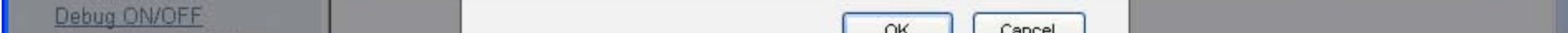
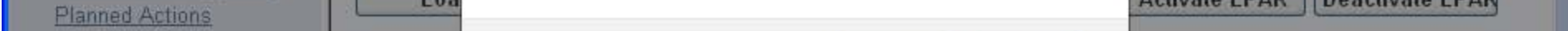
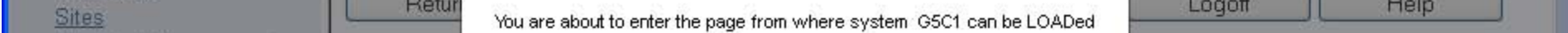
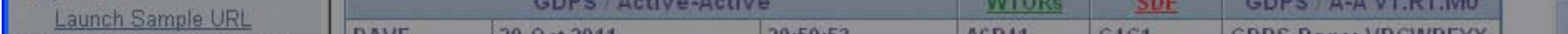
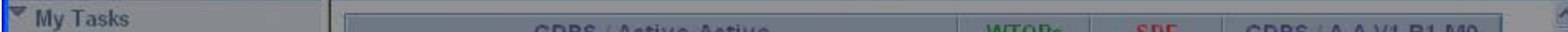
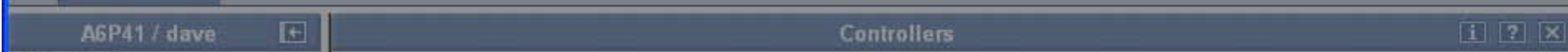
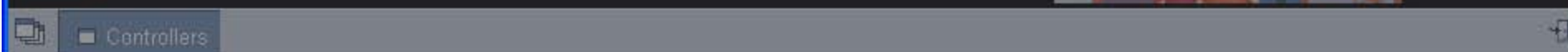
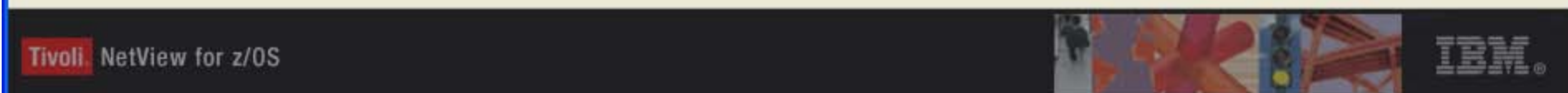
Modify

New

Delete

## Optional IPLtypes/modes for system: G5C1

IPLtype	IPLmode	Loadaddr	LoadParm
NORMAL	NORMAL	2820	2827G5M



You are about to enter the page from where system G5C1 can be LOAded

OK

Cancel

Selected IPLtype mode

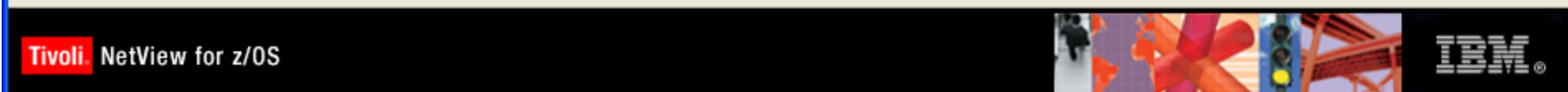
System	IPLtype	IPLmode	Loadaddr	LoadParm	Status
G5C1	NORMAL	NORMAL	2820	2827G5M	UNKNOWN

Modify IPLtype/IPLmode

Select	Modify	New	Delete
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Optional IPLtypes/modes for system: G5C1

IPLtype	IPLmode	Loadaddr	LoadParm
NORMAL	NORMAL	2820	2827G5M



A6P41 / dave

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Controllers

GDPS			WTOs	SDF	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	20:51:27	A6P41	G4C1	GDPS Page: VPCWPLSR

Yes (LOAD)

No (Return)

Print Screen

Logoff

Requested Action:

System	G5C1
LoadAddress	2820
LoadParm	2827G5M

Help

Yes (LOAD)	System will be LOAded. You will be linked to the Controllers page. Use the Refresh-button to follow the progress.
NO	No actions will be taken, you will be linked to the Controllers page.



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## Controllers

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GDPS / Active-Active			WTOs	SDF	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	20:52:15	A6P41	G4C1	GDPS Page: VPCWPFYX

Return

Refresh

Print Screen

Logoff

Help

Load

Stop

Reset

Activate LPAR

Deactivate LPAR

Standard Action or user defined action Already Active. Buttons above are disabled.

## Selected IPLtype/mode

System	IPLtype	IPLmode	Loadaddr	LoadParm	Status
G5C1	NORMAL	NORMAL	2820	2827G5M	GRS_JOIN

## Modify IPLtype/IPLmode

Select

Modify

New

Delete

## Optional IPLtypes/modes for system: G5C1

IPLtype	IPLmode	Loadaddr	LoadParm
NORMAL	NORMAL	2820	2827G5M



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## GDPS / Active-Active

WTORs

SDF

GDPS / A-A V1.R1.M0

DAVE

20 Oct 2011

20:53:17

A6P41

G4C1

GDPS Page: VPCWPFYX

Return

Refresh

Print Screen

Logoff

Help

Load

Stop

Reset

Activate LPAR

Deactivate LPAR

Standard Action or user defined action Already Active. Buttons above are disabled.

## Selected IPLtype/mode

System	IPLtype	IPLmode	Loadaddr	LoadParm	Status
G5C1	NORMAL	NORMAL	2820	2827G5M	WAIT4COM

## Modify IPLtype/IPLmode

Select

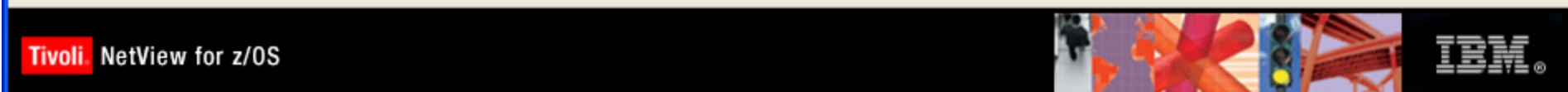
Modify

New

Delete

## Optional IPLtypes/modes for system: G5C1

IPLtype	IPLmode	Loadaddr	LoadParm
NORMAL	NORMAL	2820	2827G5M



GDPS / Active-Active			WTORs	SDE	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	20:56:46	A6P51	G5C1	GDPS Page: VPCWAACO

Refresh

Print Screen

Logoff

Help

Controllers:

System/Domain	G5C1 / A6P51	Status	BACKUP CONTROLLER
System/Domain	G4C1 / A6P41	Status	PRIMARY CONTROLLER

Commands:

Change MASTER

## Tivoli NetView for z/OS



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A6P41 / dave

Sites

i ? x

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## GDPS / Active-Active

WTORs

SDE

GDPS / A-A V1.R1.M0

DAVE

20 Oct 2011

20:58:02

A6P41

G4C1

GDPS Page: VPCWAASI

Refresh

Print Screen

Logoff

Help

## Sites

Site	G4	Status	ACTIVE 2 out of 2 Systems
Site	G5	Status	ACTIVE 2 out of 2 Systems

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Tasks

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Sites



GDPS / Active-Active

[WTORs](#)[SDE](#)

GDPS / A-A V1.R1.M0

DAVE

20 Oct 2011

20:59:59

A6P41

G4C1

GDPS Page: VPCWAASP

Return

Refresh

Print Screen

AutoRefresh ON

Logoff

Help

STOP Systems

Selected Site: G4

Sysname	CA	Status	IPLtype	Lpar	IPLmode	Auto	Loadaddr	Loadparm
<a href="#">G4P1</a>	A	ACTIVE	NORMAL	S235	NORMAL	YY	2900	2908G4M
<a href="#">G4P2</a>	A	ACTIVE	NORMAL	S236	NORMAL	YY	2900	2908G4M
<a href="#">CF1</a>		MANUAL	NORMAL	S238	NORMAL	NN		

# NetView for z/OS



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Sites



GDPS / Active-Active			WTORs	SDE	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	21:01:17	A6P41	G4C1	GDPS Page: VPCWPFYX

Return

Refresh

Print Screen

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Help

Load

Stop

Reset

Activate LPAR

Deactivate LPAR

## Selected IPLtype/mode

System	IPLtype	IPLmode	Loadaddr	LoadParm	Status
G4P1	NORMAL	NORMAL	2900	2908G4M	ACTIVE

## Modify IPLtype/IPLmode

Select

Modify

New

Delete

## Optional IPLtypes/modes for system: G4P1

IPLtype	IPLmode	Loadaddr	LoadParm
NORMAL	NORMAL	2900	2908G4M
ABNORMAL	ABNORMAL	2900	2908G4M

newHistorybookmarksToolsHelp

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9.212.128.71https://9.212.128.71:9943/netview/a6p41

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Workload Management

GDPS / Active-Active			WTORs	SDE	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	21:18:47	A6P41	G4C1	GDPS Page: VPCWAWOM

RefreshLogoffHelp

Workloads

Workload	Site 1	Site 2
<a href="#">CICS_WORKLOAD_1</a>	UP / G4	UP / G5
<a href="#">CICS_WORKLOAD_2</a>	DEGRADED / G4	UP / G5
<a href="#">CICS_WORKLOAD_3</a>	UP / G4	UP / G5
<a href="#">CICS_WORKLOAD_4</a>	UP / G4	UP / G5
<a href="#">CICS_WORKLOAD_5</a>	UP / G4	UP / G5
<a href="#">CICS_WORKLOAD_6</a>	UP / G4	UP / G5
<a href="#">CICS_WORKLOAD_7</a>	UP / G4	UP / G5
<a href="#">CICS_WORKLOAD_8</a>	UP / G4	UP / G5
<a href="#">CICS_WORKLOAD_9</a>	UP / G4	UP / G5
<a href="#">IMS_WORKLOAD_1</a>	UP / G4	UP / G5
<a href="#">CICS_WORKLOAD_0</a>	DOWN / G4	DOWN / G5
<a href="#">TEST_WORKLOAD_@_#_\$</a>	DOWN / G4	DOWN / G5



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## Workload Management



GDPS / Active-Active			WTOs	SDE	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	21:04:28	A6P41	G4C1	GDPS Page: VPCWAW01

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## Commands against workload: CICS\_WORKLOAD\_2

[Start Workload](#)[Start Workload G4](#)[Start Workload G5](#)[Stop Workload](#)[Stop Workload G4](#)[Stop Workload G5](#)[Start Repl. G4 to G5](#)[Start Repl. G5 to G4](#)[Stop Repl. G4 to G5](#)[Stop Repl. G5 to G4](#)[Start Routing to G4](#)[Start Routing to G5](#)[Stop Routing to G4](#)[Stop Routing to G5](#)

Workload	CICS_WORKLOAD_2		
Site 1	G4	Status	UP
Site 2	G5	Status	UP
ROUTING direction	N/A	Status	QUIESCED
Configuration Type	ACTIVESTANDBY		
Workload Failure	PROMPT		
Site Failure	PROMPT		
Assigned Auto Op	AUTWWA2		





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## Workload Management



GDPS / Active-Active			WTOs	SDE	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	21:06:23	A6P41	G4C1	GDPS Page: VPCWAW02

Execute Cancel Logoff Help

### Requested Action

Workload	CICS_WORKLOAD_2
Command	ROUTING START WORKLOAD=CICS_WORKLOAD_2 SITE=G4

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## Workload Management



GDPS / Active-Active			WTOs	SDE	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	21:06:38	A6P41	G4C1	GDPS Page: VPCWAW01

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### Message:

**GEO1200I Command ROUTING START WORKLOAD=CICS\_WORKLOAD\_2 SITE=G4 started by DAVE**

### Commands against workload: CICS\_WORKLOAD\_2

Start Workload	Start Workload G4	Start Workload G5
Stop Workload	Stop Workload G4	Stop Workload G5
	Start Repl. G4 to G5	Start Repl. G5 to G4
	Stop Repl. G4 to G5	Stop Repl. G5 to G4
	Start Routing to G4	Start Routing to G5
	Stop Routing to G4	Stop Routing to G5

Workload	CICS_WORKLOAD_2		
Site 1	G4	Status	UP
Site 2	G5	Status	UP
ROUTING direction	N/A	Status	QUIESCED
Configuration Type	ACTIVESTANDBY		

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## Workload Management



GDPS / Active-Active			WTOs	SDE	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	21:07:23	A6P41	G4C1	GDPS Page: VPCWAW01

Return Refresh Print Screen Logoff Help

### Commands against workload: CICS\_WORKLOAD\_2

Start Workload	Start Workload G4	Start Workload G5
Stop Workload	Stop Workload G4	Stop Workload G5
	Start Repl. G4 to G5	Start Repl. G5 to G4
	Stop Repl. G4 to G5	Stop Repl. G5 to G4
	Start Routing to G4	Start Routing to G5
	Stop Routing to G4	Stop Routing to G5

Workload	CICS_WORKLOAD_2		
Site 1	G4	Status	UP
Site 2	G5	Status	UP
ROUTING direction	G4	Status	ACTIVE
Configuration Type	ACTIVESTANDBY		
Workload Failure	PROMPT		
Site Failure	PROMPT		
Assigned Auto Op	AUTWWA2		

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Workload Management



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Start Routing to G4

Start Routing to G5

Stop Routing to G4

Stop Routing to G5

Workload	CICS_WORKLOAD_2		
Site 1	G4	Status	UP
Site 2	G5	Status	UP
ROUTING direction	G4	Status	ACTIVE
Configuration Type	ACTIVESTANDBY		
Workload Failure	PROMPT		
Site Failure	PROMPT		
Assigned Auto Op	AUTWWA2		

Replication	System	Jobname	Status
DB2 / Apply	G4P1	QASN1APP	ACTIVE
DB2 / Apply	G4P2	QASN1APP	INACTIVE
DB2 / Capture	G4P1	QASN1CAP	ACTIVE
DB2 / Capture	G4P2	QASN1CAP	INACTIVE
DB2 / Apply	G5P1	QASN1APP	ACTIVE
DB2 / Apply	G5P2	QASN1APP	INACTIVE
DB2 / Capture	G5P1	QASN1CAP	ACTIVE
DB2 / Capture	G5P2	QASN1CAP	INACTIVE

GDPS / Active-Active			WTORs	SDE	GDPS / A-A V1.R1.M0
	20 Oct 2011	21:08:55	A6P41	G4C1	GDPS Page: VPCWASDL

Site1: G4		Site2: G5	
WorkLoad	System/Site	WorkLoad	System/Site
<a href="#">GE01131</a>		<a href="#">G5_GE01131</a>	
<a href="#">GE01131</a>		<a href="#">G5_GE01131</a>	

Controller alerts
<a href="#">099I GDPS/A-A INITIALIZATION IS COMPLETE</a>
<a href="#">006I GDPS/A-A MESSAGE HEALTH CHECK OK</a>

Trace Entries
<a href="#">11 21:06:38 ROUTING PLANNED/STANDARD ACTION STARTED</a>
<a href="#">11 21:06:38 ROUTING=START WORKLOAD=CICS_WORKLOAD_2 SITE=G4 STARTED /1</a>
<a href="#">11 21:06:43 ROUTING=START WORKLOAD=CICS_WORKLOAD_2 SITE=G4 ENDED RC=0 /1</a>
<a href="#">11 21:06:44 ROUTING PLANNED/STANDARD ACTION ENDED</a>

GDPS			WTORs	SDE	GDPS / A-A V1.R1.M0
	20 Oct 2011	21:09:08	A6P41	G4C1	GDPS Page: VPCWPSDD

Component	WK	System	G4C1
Color	RED	Priority	140
Date	10/20/11	Time	21:08:00
Reporter	AUTGE02	Node	A6P41
Ref.Value	G4_GE01131		

ext

311 WORKLOAD CICS\_WORKLOAD\_0 IN G4PXPlexGRP IS :DOWN

Trace Entry

Next Trace Entry

Window

Delete Alert

GDPS			WTORs	SDF	GDPS / A-A V1.R1.M0
	20 Oct 2011	21:09:22	A6P41	G4C1	GDPS Page: VPCWPHMS

[e Window](#)

# E01131

**11 Workload** <WKLD\_name> is :<WKLD\_status>

**tion:** The GDPS defined workload <WKLD\_name> is in status <WKLD\_status> as requested from a STOP or START command. This message is also issued during GDPS/Active-Active monitoring. The <WKLD\_status> follows the SA definitions for application status.

If the workload is found to be in an invalid status a red SDF message is issued. Determine if the workload is in intended status. If not, take appropriate actions.

**tion:** NETLOG, SDF alert - red (cleared by A-A monitor)


GDPS/Active-Active


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Planned Actions

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<a href="#">OOCOD_ACT_CP63</a>	OOCOD FOR CPC CP63 WITH ASK WAIT PROMPT PARM
<a href="#">OOCOD_UNDO_CP23</a>	OOCOD UNOD FOR CPC CP23 WITH WAIT PARM
<a href="#">OOCOD_UNDO_CP63</a>	OOCOD UNOD FOR CPC CP63 WITH WAIT PARM
<a href="#">REDIRWKL1</a>	REDIRECTION WORKLOAD1
<a href="#">RESET_G4C1</a>	RESET G4C1 (SITE 1)
<a href="#">RESET_G4P1</a>	RESET G4P1 ON SITE1
<a href="#">RESET_G4P2</a>	RESET G4P2 ON SITE1
<a href="#">RESET_G5C1</a>	RESET G5C1 (SITE 2)
<a href="#">RESET_G5P1</a>	RESET G5P1 ON SITE2
<a href="#">RESET_G5P2</a>	RESET G5P2 ON SITE2
<a href="#">RESET_SITE_G4</a>	RESET SITE G4
<a href="#">RESET_SITE_G5</a>	RESET ALL SYSTEMS IN G5
<a href="#">R0_G4_TO_G5</a>	STOP ROUTING G4 => START ROUTING G5 ALL WORKLOADS
<a href="#">R0_G5_TO_G4</a>	STOP ROUTING G5 => START ROUTING G4 ALL WORKLOADS
<a href="#">SLD_5_4_3_1</a>	ACT, IPLTYPE, LOAD FOR SITE G4
<a href="#">SLD_5_4_3_2</a>	ACT, IPLTYPE, LOAD FOR SITE G5
<a href="#">SLD_5_4_4_CICS</a>	START WORKLOAD & REPLICATION & ROUTING FOR CICS
<a href="#">SLD_5_4_4_IMS</a>	START WORKLOAD & REPLICATION & ROUTING FOR IMS
<a href="#">SLD_5_4_5_CICS</a>	STOP WORKLOAD & REPLICATION & ROUTING FOR CICS
<a href="#">SLD_5_4_5_IMS</a>	STOP WORKLOAD & REPLICATION & ROUTING FOR IMS
<a href="#">SLD_5_4_6_S1R1</a>	STOP SITE1 & REDIRECTION
<a href="#">SLD_5_4_6_S2R1</a>	STOP SITE2 & NO REDIRECTION
<a href="#">SLD_5_4_6_S2R2</a>	STOP SITE2 & REDIRECTION
<a href="#">START_G5P1</a>	ACTIVATE, LOAD G5P1, START WORKLOAD & START ROUTING
<a href="#">STOP_G4C1</a>	STOP G4C1 ON SITE1
<a href="#">STOP_G4P1</a>	STOP G4P1 & G4P2



# NetView for z/OS



Controllers Sites **Planned Actions** Workload Management

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## Planned Actions



GDPS / Active-Active			WTOs	SDE	GDPS / A-A V1.R1.M0
DAVE	20 Oct 2011	21:10:32	A6P41	G4C1	GDPS Page: VPCWPFU2

Total no of steps :11 Script statements in order

COMM='STOP SITE1 & REDIRECTION'
ROUTING='STOP WORKLOAD=CICS_WORKLOAD_1 SITE=G4'
ROUTING='STOP WORKLOAD=CICS_WORKLOAD_2 SITE=G4'
ROUTING='STOP WORKLOAD=IMS_WORKLOAD_1 SITE=G4'
ROUTING='START WORKLOAD=CICS_WORKLOAD_1 SITE=G5'
ROUTING='START WORKLOAD=CICS_WORKLOAD_2 SITE=G5'
ROUTING='START WORKLOAD=IMS_WORKLOAD_1 SITE=G5'
SYSPLEX='STOP WORKLOAD=CICS_WORKLOAD_1 SITE=G4'
SYSPLEX='STOP WORKLOAD=CICS_WORKLOAD_2 SITE=G4'
SYSPLEX='STOP WORKLOAD=IMS_WORKLOAD_1 SITE=G4'
SYSPLEX='STOP G4P1 G4P2'

Display Filter View Print Options Help

-----  
SF SYSLOG 9343.101 G4C1 G4C1 10/20/2011 2W 45,567 COLUMNS 50- 1

MMAND INPUT ==> \_ SCROLL ==> CS

090 SYSTEM NAME : G4P2 SITE : G4 STATE : UNAVAIL

090 IPADDR..PORT : 10.212.128.151..40012

090 SYSTEM NAME : G4P1 SITE : G4 STATE : UNAVAIL

090 12 OF 12 RECORDS DISPLAYED

090 \*AQS0180W WORKLOAD CICS\_WORKLOAD\_2 HAS UNAVAILABLE SERVERS ON SITE G4

090 \*GEO1172E GDPS/A-A SWITCH PROMPT 733

090 .  
090 . STATUS: ACTION POLICY FOR WORKLOAD FAILURE IS PROMPT.

090 . ACTIVE SITE: G4

090 . WORKLOAD PROBLEM: CICS\_WORKLOAD\_2 IS DOWN.

090 .  
090 . STANDBY SITE: G5

090 . WORKLOAD: CICS\_WORKLOAD\_2 IS UP.

090 .  
090 .  
090 . OPTIONS:

090 . REPLY 'YES' TO INITIATE SWITCH.

090 . 'NO' TO SUPPRESS ANY ACTION.

090 \*0014 GEO1174A G5 WORKLOAD CICS\_WORKLOAD\_2 READY FOR SWITCH. REPLY YES  
NO.

GDPS / Active-Active			WTORs	SDE	GDPS / A-A V1.R1.M0
	20 Oct 2011	21:15:32	A6P41	G4C1	GDPS Page: VPCWASDL

Refresh

Close Window

Help

Write Trace

Customize

Site1: G4		Site2: G5	
WorkLoad	System/Site	WorkLoad	System/Site
<u>GE01131</u>		<u>G5_GE01131</u>	
<u>GE01131</u>		<u>G5_GE01131</u>	
<u>GE01131</u>			
<u>GE09990</u>			

Controller alerts
<u>990I OUTSTANDING SWITCH PROMPT IN G4C1</u>
<u>999I GDPS/A-A INITIALIZATION IS COMPLETE</u>

Trace Entries
<u>11 21:06:38 ROUTING PLANNED/STANDARD ACTION STARTED</u>
<u>11 21:06:38 ROUTING=START WORKLOAD=CICS_WORKLOAD_2 SITE=G4 STARTED /1</u>
<u>11 21:06:43 ROUTING=START WORKLOAD=CICS_WORKLOAD_2 SITE=G4 ENDED RC=0 /1</u>
<u>11 21:06:44 ROUTING PLANNED/STANDARD ACTION ENDED</u>

GDPS			WTORs	SDE	GDPS / A-A V1.R1.M0
	20 Oct 2011	21:16:19	A6P41	G4C1	GDPS Page: VPCWPX03

Will be automatically refreshed every 30th second.

Window

Refresh

Help

s

Outstanding WTORs	
21.13.42 G4C1 STC09447 *0014 GE01174A G5 WORKLOAD CICS_WORKLOAD_2 READY FOR SWITCH. REPLY YES OR NO.	
17.18.13 G4C1 *0011 DSI802A A6P41 REPLY WITH VALID NCCF SYSTEM OPERATOR COMMAND	

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9.212.128.71https://9.212.128.71:9943/netview/a6p41/?DSICMD5+=+%255P.VPCWAX04+a(+VPC\_NWA\_DAVE\_WTOR\_1)Google

GDPS		WTORs	SDE	GDPS / A-A V1.R1.M0
20 Oct 2011	21:16:33	A6P41	G4C1	GDPS Page: VPCWAX04

WindowHelp

to WTOR

21.13.42 G4C1 STC09447 \*0014 GE01174A G5 WORKLOAD CICS\_WORKLOAD\_2 READY FOR SWITCH. REPLY YES OR NO.

ending SWITCH prompt

2E GDPS/A-A SWITCH PROMPT

S: ACTION POLICY FOR WORKLOAD FAILURE IS PROMPT.

E SITE: G4

LOAD PROBLEM: CICS\_WORKLOAD\_2 IS DOWN.

BY SITE: G5

LOAD: CICS\_WORKLOAD\_2 IS UP.

NS:

YES' TO INITIATE SWITCH.

NO SUPPRESS ANY ACTION.

YESNO

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