



DISASTER RECOVERY PLAN



Disaster Recovery

Disaster Recovery User Group Review
March 8, 2011





Agenda

- Welcome and Introductions – Jack Sturges
- SCMS
 - Project Update – Phil Ruehl
 - Health Services SCMS Exercise Results – Rex Bowman
 - Session Color Recommendation – Dennis Donohue
 - Copying data from SCMS exercise – Robert Jenkins
 - SCMS New Rates Package Review – Natividad Nevarez
- Midrange Disaster Recovery
 - Project Update – Phil Ruehl
 - Solution Architecture – Phil Ruehl
- Q&As from January 26 User Group meeting – All
- Closing Remarks – All





SCMS Project Update

- Completed DR exercise for Health Services
- Preparing for DR exercise for EDD
- Created manual failover procedures for SCO
 - Includes Network, Storage, z/OS, CICS, DB2, IDMS and Product Support / Licenses
- Scheduling SCMS exercise for the Triplex customers (Targeting week of May 9)
- **Key Issue:** Inability to fill vacant positions to develop failover automation will impact the recovery time objective



SCMS Project Update - Schedule

Milestone	% Comp	Baseline	Estimated / Actual Completion Date
1. CWS	100%	2/4/11	2/14/11
2. SCMS Service Documentation and Rates Created	100%	11/29/10	11/15/10
3. Mainframe Procurement	100%	11/12/10	12/13/10
4. Mainframe Install and Control LPAR build	10%	1/11/11	3/31/11
5. SCO	42%	3Q11	6/3/11
a. Document Procedure and test plan for manual failover	85%	1Q11	3/7/11
b. OTech test for SCO mainframe	0%	1Q11	4/8/11
c. Customer exercise for SCO mainframe applications	0%	1Q11	4/22/11
d. Remove customer from warmsite contract	0%	3Q11	6/3/11
6. Vacaville Shared	62%	4/22/11	5/6/11
a. Document Procedure and test plan for manual failover	100%	1Q11	1/31/11
b. OTech test for Vacaville Shared mainframe	100%	1Q11	2/11/11
c. Customer exercise for DHCS mainframe applications	100%	1Q11	2/18/11
d. Customer exercise for EDD mainframe applications	0%	1Q11	3/25/11
e. Remove customers from warmsite contract	0%	3Q11	5/6/11
7. Gold Camp Shared (Triplex)	0%	2Q11	TBD
8. Update Service documentation	10%	2Q11	TBD
9. Create failover automation	0%	2Q11	TBD
10. Close	0%	3Q11	TBD



Health Services Exercise Review

Incident	Description	Resolution
105261	SCMS - S1S1/S2S2 Network CICS connectivity	Modified the ADJCLUST
105717	Reverse Lookup unavailable	Added DR IP address to DNS server
105835	IPL of S1S1DR and S2S2DR for IOF.	IPL SCMS systems to reset IOF license
105894	Possible VTS scratch tape shortage	
106197	Network issues (Kern Co.)	Updated ACL on county router HIP15POP.
106285	Network Issues (Mariposa Co.)	Updated ACL on county router HIP22POP.
106408	SMS error during batch processing	Cataloged Tape DSN



Session Color Recommendation

- OTech recommends user change the color of the DR test environment session
- The following slides show how to change the color.



Session Color Recommendation

Currently Production and DR look the same

1:3270 Display - Teale - A - TDCIP055

File Edit View Communication Actions Help

Menu Utilities Compilers Options Status Help

ISPF Primary Option Menu

Option ==> _

0	Settings	Terminal and user parameters	User ID
1	View	Display source data or listings	Time. .
2	Edit	Create or change source data	Terminal
3	Utilities	Perform utility functions	Screen.
4	Foreground	Interactive language processing	Language
5	Batch	Submit job for language processing	Appl ID
6	Command	Enter TSD or Workstation commands	TSD logo
7	Dialog Test	Perform dialog testing	TSD pref
9	IBM Products	IBM program development products	System I
10	SCLM	SW Configuration Library Manager	MVS acct
11	Workplace	ISPF Object/Action Workplace	Release
12	z/OS User	z/OS user applications	
A	Applications	Additional ISPF Applications	

Enter X to Terminate using log/list defaults

MA a

2:3270 Display - DR/SCMS Teale - F - TDCIP114

File Edit View Communication Actions Help

Menu Utilities Compilers Options Status Help

z/OS Primary Option Menu

Option ==> _

0	Settings	Terminal and user parameters	User ID . . : SYSE25
1	View	Display source data or listings	Time. . . : 10:33
2	Edit	Create or change source data	Terminal. : 3278
3	Utilities	Perform utility functions	Screen. . : 1
4	Foreground	Interactive language processing	Language. : ENGLISH
5	Batch	Submit job for language processing	Appl ID . : ISR
6	Command	Enter TSD or Workstation commands	TSD logon : DCGENRLS
7	Dialog Test	Perform dialog testing	TSD prefix: SYSE25
9	IBM Products	IBM program development products	System ID : SY5
10	SCLM	SW Configuration Library Manager	MVS acct. : NB297T.S
11	Workplace	ISPF Object/Action Workplace	Release . : ISPF 6.1
12	z/OS System	z/OS system programmer applications	
13	z/OS User	z/OS user applications	
A	Applications	Additional ISPF Applications	

Enter X to Terminate using log/list defaults

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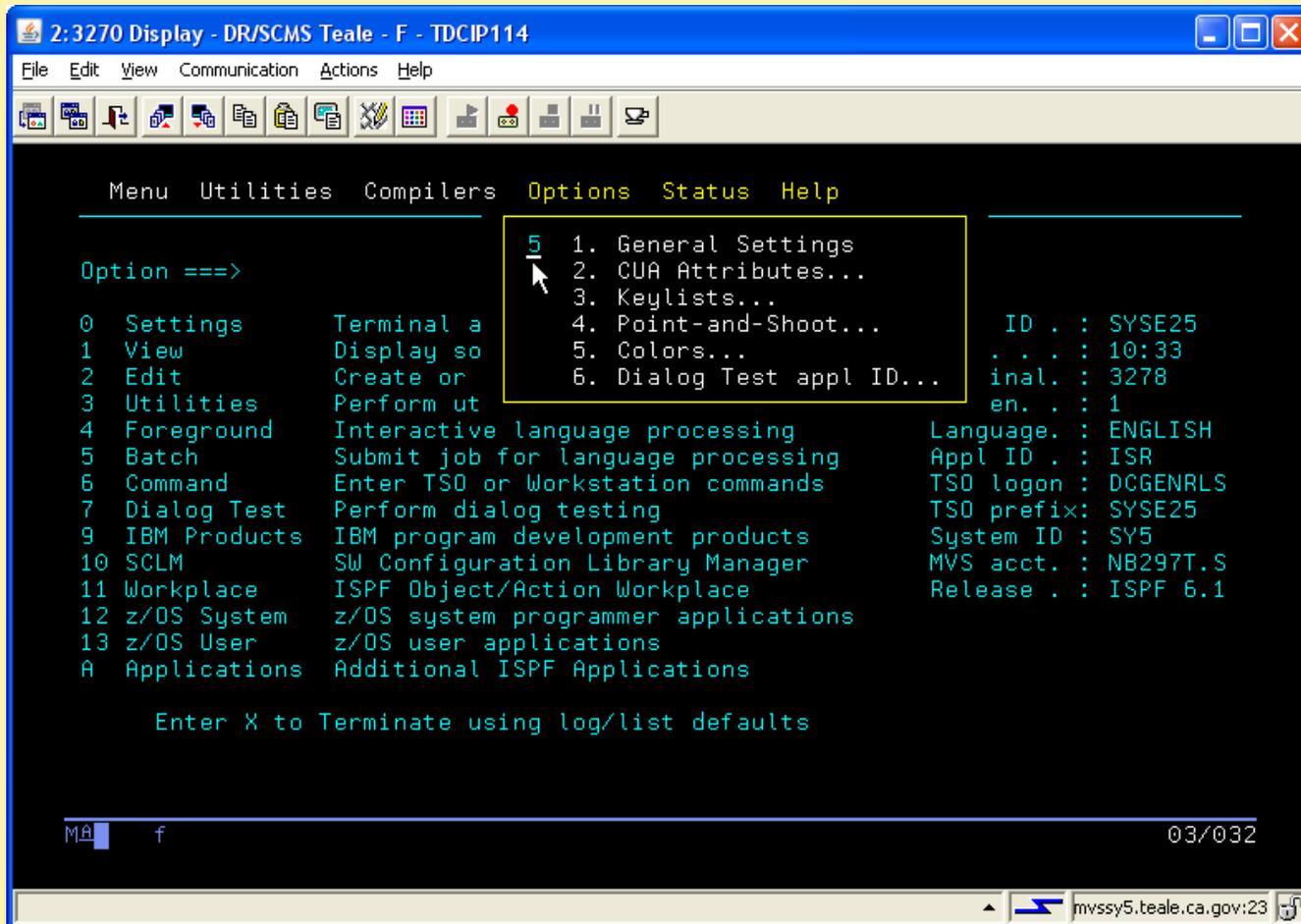
04/014

mvssy5.teale.ca.gov:23



Session Color Recommendation

Step 1: In the DR environment, Select Options, then 5





Session Color Recommendation

Step 2: Change Green to Red and White to Yellow

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2:3270 Display - DR/SCMS Teale - F - TDCIP114
File Edit View Communication Actions Help
[Icons]

      ISPF Settings
      Global Color Change Utility
Command ==> _____ Defaults

0
Globally change one or more of the ISPF default colors and
0 press ENTER to immediately see the effect. Clearing a color
1 field and pressing ENTER restores the default color or
2 selecting the Defaults point-and-shoot field restores all
3 default colors.
4
5 Enter the EXIT command to save changes or enter the CANCEL
6 command to exit without saving.
7
9 ISPF Default Color
1 Blue . . . . . TURQ
1 Red . . . . . TURQ
1 Pink . . . . . _____
1 Green . . . . . RED
A Turquoise . . . _____
  Yellow . . . . . _____
  White . . . . . YELLOW

: SYSE25
: 10:33
: 3278
: 1
: ENGLISH
: ISR
: DCGENRLS
: SYSE25
: SY5
: NB297T.S
: ISPF 6.1

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Session Color Recommendation

Result

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2:3270 Display - DR/SCMS Teale - F - TDCIP114
File Edit View Communication Actions Help
[Icons]
Menu Utilities Compilers Options Status Help
z/OS Primary Option Menu
Option ==> _
0 Settings Terminal and user parameters User ID . : SYSE25
1 View Display source data or listings Time . . . : 10:33
2 Edit Create or change source data Terminal . : 3278
3 Utilities Perform utility functions Screen . . : 1
4 Foreground Interactive language processing Language . : ENGLISH
5 Batch Submit job for language processing Appl ID . : ISR
6 Command Enter TSO or Workstation commands TSO logon : DCGENRLS
7 Dialog Test Perform dialog testing TSO prefix: SYSE25
9 IBM Products IBM program development products System ID : SY5
10 SCLM SW Configuration Library Manager MVS acct. : NB297T.S
11 Workplace ISPF Object/Action Workplace Release . : ISPF 6.1
12 z/OS System z/OS system programmer applications
13 z/OS User z/OS user applications
A Applications Additional ISPF Applications
Enter X to Terminate using log/list defaults
MA f 04/014
mvssy5.teale.ca.gov:23
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Copying Data from an Exercise

- If data is required from the exercise, each customer will need to FTP any dataset from SCMS that they want to keep back to their production system. This FTP needs to be completed prior to the end of the SCMS exercise.
- If there are OTech-owned datasets, like the Tape Management Catalog (TMC) or SAR (CA-View) database that the client wants returned, they would need to be specified in the G&Os and we will attempt to satisfy the request.
- In no case will SCMS VTS volumes be available after an SCMS exercise, but any dataset on a VTS volume can be FTP it back to the production system, as in the first bullet.
- If a client needs to write a physical tape cartridge, that need should be identified in the G&Os.



SCMS Rates (Monthly)

- For each Mainframe customer
 - \$5000 base
 - \$60 Per MIP required in a Disaster (1 – 500)
 - \$75 Per MIP required in a Disaster (501 and over)
- Example 1: 50 MIPS required in a Disaster
 - $5000 + (60 * 50) = \$8000$
- Example 2: 650 MIPS required in a Disaster
 - $5000 + (60 * 500) + (75 * 150) = \$46,250$



SCMS Rate – Customer Impact

Prefix	Customer	Current Monthly Rate	Number of MIPS in Current DR Solution*	Tier 1 MIPS	Tier 2 MIPS	Total	Change	% Change
CA	Consumer Affairs	\$10,407	100	100	0	\$11,000	593	6%
CO/PD	State Controller's Office	\$23,603	150*	150	0	\$14,000	(9,603)	-41%
CR	Dept of Corrections - OBIS	\$10,453	150	150	0	\$14,000	3,547	34%
EQ	BOE	\$22,415	250*	250	0	\$20,000	(2,415)	-11%
FI	Dept of Finance	\$7,823	50	50	0	\$8,000	177	2%
FS	Forestry & Fire Protection	\$5,618	10	10	0	\$5,600	(18)	0%
HD	Health Services	\$22,858	250*	250	0	\$20,000	(2,858)	-13%
EM	EDD	\$55,645	550*	500	50	\$38,750	(16,895)	-30%
LB	Contractor's State License	\$6,858	30*	30	0	\$6,800	(58)	-1%
LO	Ca Lottery	\$6,934	20	20	0	\$6,200	(734)	-11%
MV	Dept of Motor Vehicles	\$21,111	300*	300	0	\$23,000	1,889	9%
PB	State Personnel Board	\$6,074	20	20	0	\$6,200	126	2%
RB	Horse Racing Board	\$5,982	10	10	0	\$5,600	(382)	-6%
ST	State Teachers Retirement	\$15,968	150*	150	0	\$14,000	(1,968)	-12%
B5	OSI – CWS	\$103,544	1200	500	700	\$87,500	(16,044)	-15%

* MIPS for SCMS may be different based on application requirements



SCMS Rate – Disaster Cost

Additional cost in the event of a disaster

Customers	Current Actual Disaster Cost (60 Days)	SCMS Actual Disaster Cost (60 Days)
Vacaville (MF, Network, VTS)	\$1,101,280	\$140,000
Gold Camp (MF, Network, VTS)	\$1,268,860	\$60,000



Midrange Disaster Recovery



Midrange DR – Project Update

Creating design for SCO 21st Century (TFC) that will be leveraged for the standard solution

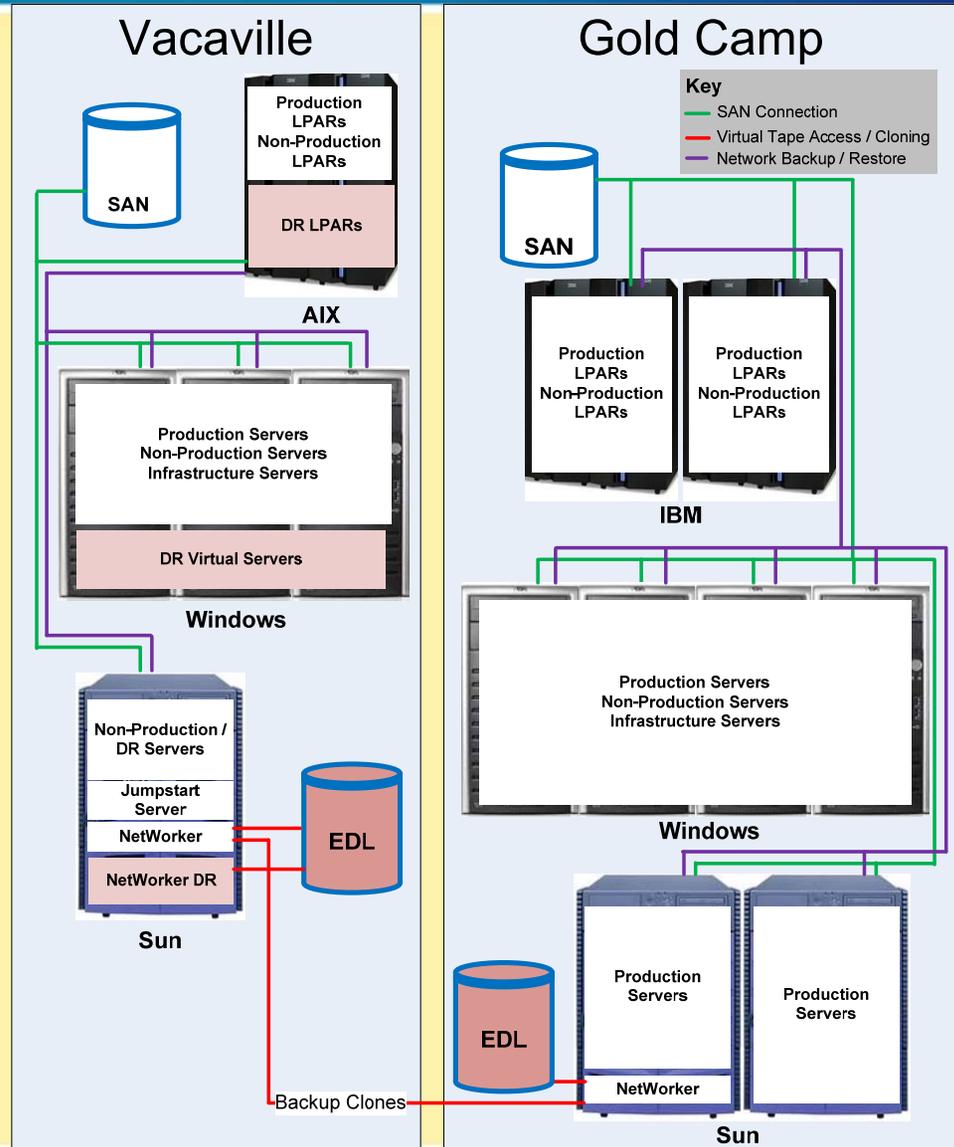
Submitted SR for AIX upgrade at Vacaville

Creating point solutions for Solaris (BOE and DOI)



Midrange DR – Planned Architecture

- Leveraging Enterprise Backup / Restore to provide Operating System, file systems (with applications) and data
- AIX to utilize Capacity-on-Demand on upgraded 795 frame
- Windows to utilize virtual servers
- Leverage existing DNS, LDAP, and Domain Controllers
- DR servers will have static names and IP addresses that will not be modified in the event of a disaster
- In a disaster, Enterprise DNS will be updated to DR servers' names





Q & As from January 26, 2010

See attached



Rich Text Format



Future Agenda Items? Questions / Comments? Next Meeting TBD in April

http://www.dts.ca.gov/news_events/user_groups/scms.asp



References



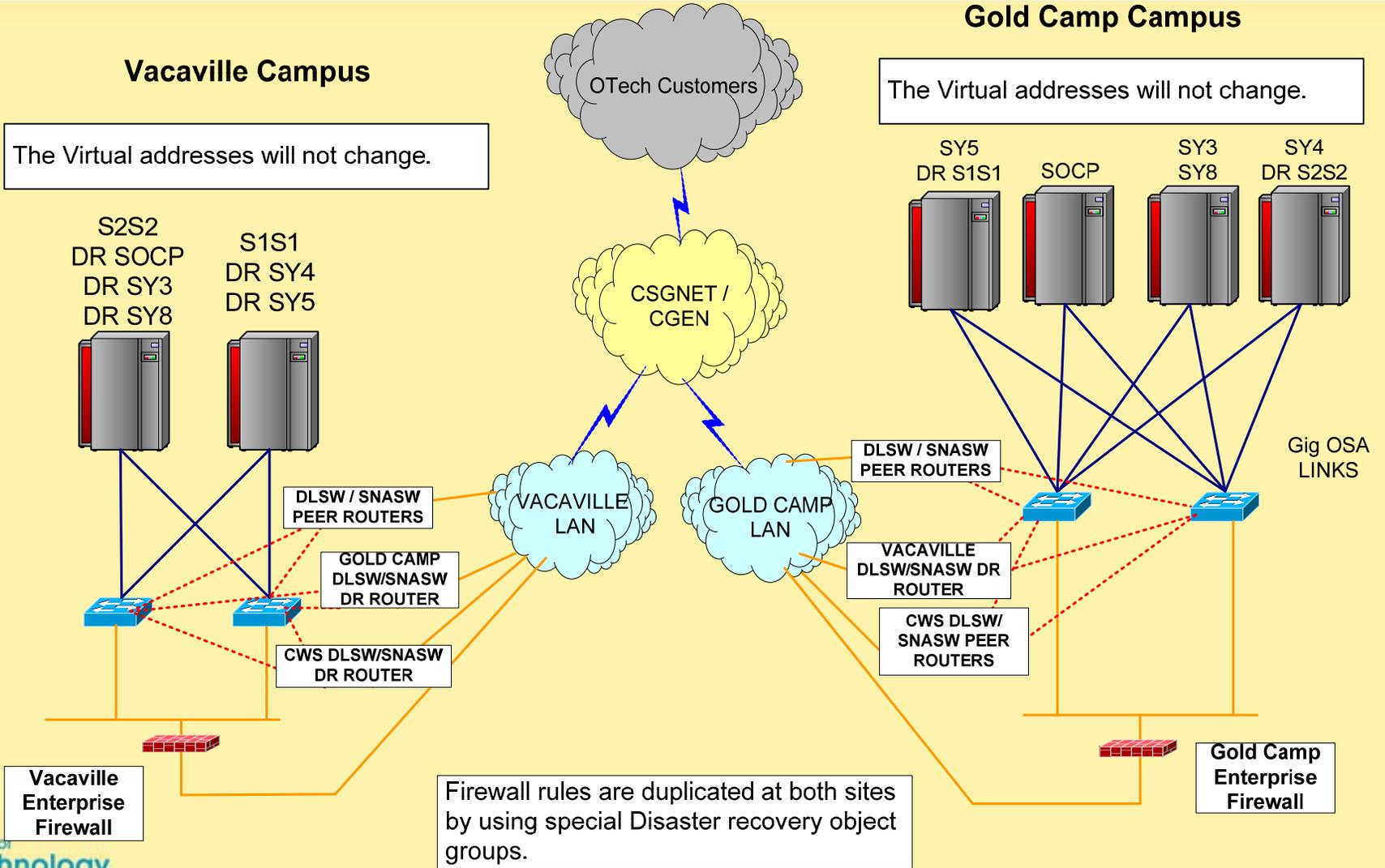
SCMS Network Design

Vacaville Campus

Gold Camp Campus

The Virtual addresses will not change.

The Virtual addresses will not change.





SCMS Production & DR Connectivity

- DR systems access Business Continuity Volume (BCV) DASD
- Communication between sites utilizes two OTech OC-192 circuits
- Redundant connections not shown

