



**Welcome** to Hello Computers Rack access web page. We recommend using [SecureCRT](#) or [putty](#) as your telnet application. Click on each device hyperlink to telnet. You can also telnet to each device from command line, e.g. telnet ts2.hellocomputers.com 2001 will telnet to rack1 r1. On bigger racks we allow you to telnet directly to terminal server and then reverse telnet out to individual devices. Type ctrl-shift-6 and X to switch between devices.

### Notes

- **VPN and IDS have been added to rack 61 and rack 14.** At the moment we are testing our lab workbook version 3.0 with VPN and IDS on these racks. We will make them available to public in the near future.
- **CCIE Voice rack (#21) is added.** Currently we are developing lab workbook on this rack and it is only available to Admins. If you are taking your CCIE Voice lab exam and want to rent it, please contact us at [info@hellocomputers.com](mailto:info@hellocomputers.com)
- Clean Rack Script has been added to automatically clean up all the rack devices configurations. A link has been added to the racks supporting this script. For more information click [here](#)
- Rack45 and rack 46 have been added for CCSP/CCNP.
- If you want to be notified of rack notifications, e.g. downtime, equipment upgrade, isdn simulator status or such, please visit this [message board](#) and click on popit to receive email notifications or check them online.
- **Do not use any other password except hello (lower case).**



### Message Boards

Participate in our message boards to learn and contribute. Some of the message forums are restricted to enrolled students for a particular program. Try logging in with your username and password provided by Hello Computers. If you can not login, simply register and fill out information including your username and password, courses you are enrolled in and we will be happy to give you access to the appropriate message boards.

### Technical Support

For technical support please open TAC case by submitting this web form. Once you submit this form, a case number will be assigned to your case and you will be notified. Hello Computers technical staff will contact you by email and/or phone until the case is resolved.

[Requesting Rack Time](#)


Check rack calendars by clicking on links below and submit your request for the rack access. **This request must be submitted by Thursday for rack access in the following week.** All times are in pacific time zone. You can request access to one of the rack during a week. e.g. You can not send request to work on rack1 for Monday and Tuesday and rack41 for Wednesday and Thursday.


[Submit Your Solutions](#)




We encourage you to submit your solutions to our labs by filling out this web form. Upload necessary output from show commands to prove that your configuration worked. You can also upload all your routers, pix and switch configuration. Our technical experts do and will go through your answers and notify you as and when necessary.





Time on our racks is in Pacific Time (GMT - 8).


[For time conversion please click here, <http://www.worldtimeserver.com/time.asp?locationid=US-CA>. We are located in US California.]



Get Current Time with <b>World Time Server</b>	
	Enter a country or city: <input type="text"/> <input type="button" value="GO"/>



Rack#	Physical Location	Network	Calendars	Login	Clean Rack [2]	Notes
rack 1	<b>Fremont, Front Office</b>	As per CCIE R/S and Network	<a href="#">rack1 calendar</a>	<a href="#">ts2</a> [ts2] <a href="#">r1</a> [ts2, line1] <a href="#">r2</a> [ts2, line2, FastE,Voice] <a href="#">r3</a> [ts2, line3, ATM] <a href="#">r4</a> [ts2, line4, ISDN] <a href="#">r5</a> [ts2, line5, ISDN,Voice,IDS] <a href="#">r6</a> [ts2, line6] <a href="#">r7</a> [ts2, line7] <a href="#">bb1</a> [ts2, line9] <a href="#">bb2</a> [ts2, line10]	<a href="#">Clean</a>	 Program: CCIE R/S and Security



<p><a href="#">Notes</a></p>		<p>Security Lab Workbooks.</p>		<p><a href="#">bb3</a> [ts24, line8]  <a href="#">pix1</a> [ts2, line13] PIX 520  <a href="#">pix2</a> [ts2, line14] PIX 501  <a href="#">frame relay switch</a> [ts2,line12]  <a href="#">cat1_3550</a> [ts2, line16]  <a href="#">cat2_3550</a> [ts2, line15]  <a href="#">ACS</a> [Admins Only]  <a href="#">CA</a> [Admins Only]</p>		<p>3550 = Yes                  ISDN = Yes                  ATM = Yes                  Voice = Yes                  PIX = Yes                  TACACS = Yes                  CA = Yes</p>
<p>rack 11</p> <p><a href="#">Notes</a></p>	<p><b>Fremont, Front Office</b></p> 	<p>Network</p> <p>As per CCIE R/S and Security Lab Workbooks.</p>	<p><a href="#">rack11 calendar</a></p>	<p><a href="#">ts11</a> [ts11]  <a href="#">r1</a> [ts11, line1]  <a href="#">r2</a> [ts11, line2, FastE, Voice]  <a href="#">r3</a> [ts11, line3, ATM]  <a href="#">r4</a> [ts11, line4, ISDN]  <a href="#">r5</a> [ts11, line5, ISDN, Voice, IDS]  <a href="#">r6</a> [ts11, line6]  <a href="#">r7</a> [ts11, line7]  <a href="#">bb1</a> [ts11, line9]  <a href="#">bb2</a> [ts11, line10]  <a href="#">bb3</a> [ts24, line8]  <a href="#">pix1</a> [ts11, line13] PIX 520  <a href="#">pix2</a> [ts11, line14] PIX 501  <a href="#">frame relay switch</a> [ts11,line12]  <a href="#">cat 3550</a> [ts11, line16]  <a href="#">cat 2900XL switch</a> [ts11, line15]  <a href="#">ACS</a> [Admins Only]  <a href="#">CA</a> [Admins Only]</p>	<p><a href="#">Clean</a></p>	 <p>Program: CCIE R/S and Security</p> <p>3550 = Yes                  ISDN = Yes                  ATM = Yes                  Voice = Yes                  PIX = Yes                  TACACS = Yes                  CA = Yes</p>
	<p><b>Fremont, Front</b></p>	<p>Network</p>		<p><a href="#">ts12</a> [ts12]  <a href="#">r1</a> [ts12, line1]  <a href="#">r2</a> [ts12, line2, FastE, Voice]  <a href="#">r3</a> [ts12, line3, ATM]</p>		

<p>rack 12</p> <p><a href="#">Notes</a></p>	<p><b>Office</b></p> 	<p>As per CCIE R/S and Security Lab Workbooks.</p>	<p><a href="#">rack12 calendar</a></p>	<p><a href="#">r4</a> [ts12, line4, ISDN]  <a href="#">r5</a> [ts12, line5, ISDN, Voice, IDS]  <a href="#">r6</a> [ts12, line6]  <a href="#">r7</a> [ts12, line7]  <a href="#">bb1</a> [ts12, line9]  <a href="#">bb2</a> [ts12, line10]  <a href="#">bb3</a> [<b>ts24</b>, line8]  <a href="#">pix1</a> [ts12, line13] PIX 520  <a href="#">pix2</a> [ts12, line14] PIX 501  <a href="#">frame relay switch</a> [ts12, line12]  <a href="#">cat1 3550</a> [ts12, line16]  <a href="#">cat2 2924XL switch</a> [ts12, line15]  <a href="#">ACS</a> [Admins Only]  <a href="#">CA</a> [Admins Only]</p>	<p><a href="#">Clean</a></p>	 <p>Program: CCIE R/S and Security</p> <p>3550 = Yes          ATM = Yes          ISDN = Yes          Voice = Yes          PIX = Yes          AAA = Yes          CA = Yes</p>
<p>rack 13</p> <p><a href="#">Notes</a></p>	<p><b>Fremont, TR2</b></p> 	<p>Network</p> <p>As per CCIE R/S and Security Lab Workbooks.</p>	<p><a href="#">rack13 calendar</a></p>	<p><a href="#">ts23</a> [ts23]  <a href="#">r1</a> [ts23, line1]  <a href="#">r2</a> [ts23, line2, FastE, Voice]  <a href="#">r3</a> [ts23, line3]  <a href="#">r4</a> [ts23, line4, ISDN]  <a href="#">r5</a> [ts23, line5, ISDN, Voice]  <a href="#">r6</a> [ts23, line6]  <a href="#">r7</a> [ts23, line7]  <a href="#">bb1</a> [ts23, line9]  <a href="#">bb2</a> [ts23, line10]  <a href="#">bb3</a> [ts23, line11]  <a href="#">pix1</a> [ts23, line13] PIX 501  <a href="#">pix2</a> [ts23, line14] PIX 501  <a href="#">frame relay switch</a> [ts23, line12]  <a href="#">cat1 3550</a> [ts23, line16]</p>	<p><a href="#">Clean</a></p>	 <p>Program: CCIE R/S and Security</p> <p>3550 = Yes          ATM = No          ISDN = Yes          Voice = Yes          PIX = Yes</p>


				<a href="#">cat2 2924XL</a> [ts23, line15] <a href="#">ACS</a> [Admins Only] <a href="#">CA</a> [Admins Only]		AAA = Yes CA = Yes
rack 14  <a href="#">Notes</a>	<b>Santa Clara, TR6</b>	Network  As per CCIE R/S and Security Lab Workbooks.	<a href="#">rack14 calendar</a>	<a href="#">ts14</a> [ts14] <a href="#">r1</a> [ts14, line1] <a href="#">r2</a> [ts14, line2, FastE, Voice] <a href="#">r3</a> [ts14, line3] <a href="#">r4</a> [ts14, line4, ISDN] <a href="#">r5</a> [ts14, line5, ISDN, Voice] <a href="#">r6</a> [ts14, line6] <a href="#">r7</a> [ts14, line7] <a href="#">bb1</a> [ts14, line9] <a href="#">bb2</a> [ts14, line10] <a href="#">bb3</a> [ts14, line11] <a href="#">pix1</a> [ts14, line13] PIX 501 <a href="#">pix2</a> [ts14, line14] PIX 501 vpn 3060 [ts14, line] <b>NEW!</b> IDS 4230 [ts14, line] <b>NEW!</b> <a href="#">frame relay switch</a> [ts14,line12] <a href="#">cat1 3550</a> [ts14, line16] <a href="#">cat2 2924XL</a> [ts14, line15] <a href="#">ACS</a> [Admins Only] <a href="#">CA</a> [Admins Only]	<a href="#">Clean</a>	  Program: CCIE R/S and Security  3550 = Yes ISDN = Yes ATM = No Voice = Yes PIX = Yes TACACS = Yes CA = Yes
				<a href="#">ts21</a> [ts21] <a href="#">r1</a> [ts21, line1] <a href="#">r2</a> [ts21, line2] <a href="#">r3</a> [ts2, line3]		



<p>rack 21</p> <p><a href="#">Notes</a></p>	<p><b>Santa Clara, TR7</b></p>	<p>Network</p> <p>As per CCIE Voice Lab Workbook.</p>	<p><a href="#">rack21 calendar</a></p>	<p><a href="#">gatekeeper</a> [ts21, line4]  <a href="#">cat1 6509 with 6608</a> [ts21, line5]  <a href="#">cat2 3550</a> [ts21, line6]  <a href="#">frame relay switch</a> [ts21,line7]  <a href="#">VG 248</a> [ts21, line7]  <a href="#">ATA 186</a> [ts21, line8]                      CM RDP                      Unity RDP                      CRS RDP</p>		 <p>Program: CCIE Voice</p> <p>6500 = Yes                      6608 = Yes                      VG 248 = Yes                      ATA 186 = Yes                      CM 3.3 = Yes                      Unity 4.0 = Yes                      CRS = Yes</p>
<p>rack 31</p> <p><a href="#">Notes</a></p>	<p><b>Rack Rental Partner: 6colabs.com</b></p>	<p>Network</p> <p>As per CCIE R/S and Security Lab Workbooks.</p>	<p><a href="#">rack31 calendar</a></p>	<p><a href="#">ts31</a> [ts31]  <a href="#">r1</a> [ts31, line40]  <a href="#">r2</a> [ts31, line34, FastE, Voice]  <a href="#">r3</a> [ts31, line38, ATM]  <a href="#">r4</a> [ts31, line42, ISDN]  <a href="#">r5</a> [ts31, line37, ISDN,Voice,IDS]  <a href="#">r6</a> [ts31, line35]  <a href="#">r7</a> [ts31, line36]  <a href="#">bb1</a> [ts31, line41]  <a href="#">bb2</a> [ts31, line33]  <a href="#">bb3</a> [ts31, line43, ATM]  <a href="#">pix1</a> [ts31, line48] PIX 501  <a href="#">pix2</a> [ts31, line65] PIX 501  <a href="#">frame relay switch</a> [ts31,line39]  <a href="#">cat1 3550</a> [ts31, line44]  <a href="#">cat2 3550</a> [ts31, line45]  <a href="#">apc</a> [ts31, line48]</p>		 <p>Program: CCIE R/S and Security</p> <p>3550 = Yes                      ISDN = Yes                      ATM = Yes                      Voice = Yes                      PIX = Yes</p>


				<a href="#">ACS GUI</a> [Admins Only] <a href="#">CA VNC</a> [Admins Only]		TACACS = Yes CA = Yes
rack 32  <a href="#">Notes</a>	<b>Rack Rental Partner:</b> <b>6colabs.com</b>	Network  As per CCIE R/S and Security Lab Workbooks.	<a href="#">rack32 calendar</a>	<a href="#">ts32</a> [ts32] <a href="#">r1</a> [ts32, line40] <a href="#">r2</a> [ts32, line34, FastE, Voice] <a href="#">r3</a> [ts32, line38, ATM] <a href="#">r4</a> [ts32, line42, ISDN] <a href="#">r5</a> [ts32, line37, ISDN,Voice,IDS] <a href="#">r6</a> [ts32, line35] <a href="#">r7</a> [ts32, line36] <a href="#">bb1</a> [ts32, line41] <a href="#">bb2</a> [ts32, line33] <a href="#">bb3</a> [ts32, line43, ATM] <a href="#">frame relay switch</a> [ts32,line39] <a href="#">cat1_3550</a> [ts32, line44] <a href="#">cat2_3550</a> [ts32, line45] <a href="#">apc</a> [ts32, line48]		  Program: CCIE R/S  3550 = Yes ISDN = Yes ATM = Yes Voice = Yes PIX = No TACACS = No CA = No
rack 33  <a href="#">Notes</a>	<b>Rack Rental Partner:</b> <b>racktimerentals.com</b>	Network  As per CCIE R/S and Security Lab Workbooks.	<a href="#">rack33 calendar</a>	<a href="#">ts33</a> [ts33] <a href="#">r1</a> [ts33, line1] <a href="#">r2</a> [ts33, line2, FastE, Voice] <a href="#">r3</a> [ts33, line3] <a href="#">r4</a> [ts33, line4, ISDN] <a href="#">r5</a> [ts33, line5, ISDN,Voice,IDS] <a href="#">r6</a> [ts33, line6] <a href="#">r7</a> [ts33, line7] <a href="#">bb1</a> [ts33, line8] <a href="#">bb2</a> [ts33, line9] <a href="#">bb3</a> [ts33, line10] <a href="#">pix1</a> [ts33, line16] PIX 520 <a href="#">pix2</a> [ts33, line14] PIX 501 <a href="#">frame relay switch</a> [ts33,line13] <a href="#">cat1_3550</a> [ts33, line11] <a href="#">cat2_3550</a> [ts33, line12]	<a href="#">Clean</a>	  Program: CCIE R/S and Security  3550 = Yes ISDN = Yes ATM = Yes Voice = Yes



				<a href="#">ACS GUI</a> [Admins Only] <a href="#">CA VNC</a> [Admins Only]		PIX = Yes TACACS = Yes CA = Yes
rack 34  <a href="#">Notes</a>	<b>Rack Rental Partner:</b> <a href="http://racktimerentals.com">racktimerentals.com</a>	Network  As per CCIE R/S and Security Lab Workbooks.	<a href="#">rack34</a> <a href="#">calendar</a>	<a href="#">ts34</a> [ts34] <a href="#">r1</a> [ts34, line1] <a href="#">r2</a> [ts34, line2, FastE, Voice] <a href="#">r3</a> [ts34, line3] <a href="#">r4</a> [ts34, line4, ISDN] <a href="#">r5</a> [ts34, line5, ISDN, Voice, IDS] <a href="#">r6</a> [ts34, line6] <a href="#">r7</a> [ts34, line7] <a href="#">bb1</a> [ts34, line8] <a href="#">bb2</a> [ts34, line9] <a href="#">bb3</a> [ts34, line10] <a href="#">pix1</a> [ts34, line16] PIX 520 <a href="#">pix2</a> [ts34, line14] PIX 501 <a href="#">frame relay switch</a> [ts34, line13] <a href="#">cat1 3550</a> [ts34, line11] <a href="#">cat2 3550</a> [ts34, line12] <a href="#">ACS GUI</a> [Admins Only] <a href="#">CA VNC</a> [Admins Only]	<a href="#">Clean</a>	  Program: CCIE R/S and Security  3550 = Yes ISDN = Yes ATM = Yes Voice = Yes PIX = Yes TACACS = Yes CA = Yes
rack 41  <a href="#">Notes</a>	<b>Fremont, TR4</b> 	<a href="#">Network</a>  Physical and logical network diagram.	<a href="#">rack41</a> <a href="#">calendar</a>	<a href="#">ts43</a> [ts43] <a href="#">r1</a> [ts43, line9] <a href="#">r2</a> [ts43, line10] <a href="#">r3</a> [ts43, line11] <a href="#">r4</a> [ts43, line12, IDS] <a href="#">pix1</a> [ts43, line13] PIX 501 <a href="#">pix2</a> [ts43, line14] PIX 501 <a href="#">vpn 3005</a> [ts43, line15] <a href="#">solaris1</a> [ts43, line7] <a href="#">solaris2</a> [ts43, line8] <a href="#">cat 2900XL switch</a> [ts43, line16]	<a href="#">Clean</a>	Program: Cisco CCSP









<p>rack 42</p> <p><u>Notes</u></p>	<p><b>Fremont, TR4</b></p> 	<p><u>Network</u></p> <p>Physical and logical network diagram.</p>	<p><u>rack42</u> <u>calendar</u></p>	<p><u>ts43</u> [ts43]  <u>r1</u> [ts43, line1]  <u>r2</u> [ts43, line2]  <u>r3</u> [ts43, line3]  <u>r4</u> [ts43, line4]  <u>pix1</u> [ts43, line5] PIX 501  <u>pix2</u> [ts43, line6] PIX 501  <u>vpn 3005</u> [ts43, line15]  <u>cat 2900XL switch</u> [ts43, line16]</p>	<p><u>Clean</u></p>	<p>Program: Cisco CCSP</p>
<p>rack 43</p> <p><u>Notes</u></p>	<p><b>Fremont, TR4</b></p>	<p><u>Network</u></p> <p>Physical and logical network diagram.</p>	<p><u>rack43</u> <u>calendar</u></p>	<p><u>ts4</u> [ts4]  <u>r1</u> [ts4, line13]  <u>r2</u> [ts4, line14]  <u>r3</u> [ts4, line15]  <u>r4</u> [ts4, line16]  <u>cat 2900XL switch</u> [ts4, line8]</p>		<p>Program: Cisco CCNP</p>




						
<p>rack 44</p> <p><u>Notes</u></p>	 <p><b>Fremont, TR4</b></p>	<p><u>Network</u></p> <p>Physical and logical network diagram.</p>	<p><u><a href="#">rack44</a></u></p> <p><u><a href="#">calendar</a></u></p>	<p><u><a href="#">ts4</a></u> [ts4]</p> <p><u><a href="#">r1</a></u> [ts4, line9]</p> <p><u><a href="#">r2</a></u> [ts4, line10]</p> <p><u><a href="#">r3</a></u> [ts4, line11]</p> <p><u><a href="#">r4</a></u> [ts4, line12]</p> <p><u><a href="#">cat 2900XL switch</a></u> [ts4, line8]</p>		<p>Program: Cisco CCNP</p>
<p><b>NEW!</b></p>		<p><u>Network</u></p>		<p><u><a href="#">ts45</a></u> [ts45]</p> <p><u><a href="#">r1</a></u> [ts45, line1]</p>		

<p>rack 45</p> <p><a href="#">Notes</a></p>	 <p><b>Fremont, TR4</b></p>	<p>Physical and logical network diagram.</p>	<p><a href="#">rack45 calendar</a></p>	<p><a href="#">r2</a> [ts45, line2]  <a href="#">r3</a> [ts45, line3]  <a href="#">r4</a> [ts45, line4]  <a href="#">pix1</a> [ts45, line5]  <a href="#">pix2</a> [ts45, line6]  <a href="#">cat</a> [ts45, line16]</p>		<p>Program: Cisco CCNP, CCSP</p>
<p><b>NEW!</b></p> <p>rack 46</p> <p><a href="#">Notes</a></p>	 <p><b>Fremont, TR4</b></p>	<p><a href="#">Network</a></p> <p>Physical and logical network diagram.</p>	<p><a href="#">rack46 calendar</a></p>	<p><a href="#">ts92</a> [ts92]  <a href="#">r1</a> [ts92, line9]  <a href="#">r2</a> [ts92, line10]  <a href="#">r3</a> [ts92, line11]  <a href="#">r4</a> [ts92, line12]  <a href="#">cat</a> [ts92, line16]</p>		<p>Program: Cisco CCNP</p>
		<p><a href="#">Network</a></p> <p>Physical</p>		<p><a href="#">ts42</a> [ts42]  <a href="#">sw1</a>, Cat 2912XL [ts42, line1]</p>		

<p>rack 51</p>	<p><b>Santa Clara, TR6</b></p>	<p>and logical network diagram.</p>	<p><a href="#">rack51 calendar</a></p>	<p><a href="#">sw2</a>, Cat 2912XL [ts42, line2]  <a href="#">sw3</a>, Cat 2912XL [ts42, line3]  <a href="#">sw4</a>, Cat 2912XL [ts42, line4]  <a href="#">r1</a>, 1005 [ts42, line5]  <a href="#">r2</a>, 1005 [ts42, line6]</p>		
<p>rack 52</p>	<p><b>Santa Clara, TR6</b></p>	<p><a href="#">Network</a>                  Physical and logical network diagram.</p>	<p><a href="#">rack52 calendar</a></p>	<p><a href="#">ts42</a> [ts42]  <a href="#">sw1</a>, Cat 2912XL [ts42, line9]  <a href="#">sw2</a>, Cat 2912XL [ts42, line10]  <a href="#">sw3</a>, Cat 2912XL [ts42, line11]  <a href="#">sw4</a>, Cat 2912XL [ts42, line12]  <a href="#">r1</a>, [ts42, line13]  <a href="#">r2</a>, [ts42, line14]</p>		
<p>rack 61</p> <p><a href="#">Notes</a></p>	<p><b>Fremont, TR2</b></p> 	<p>Network                  As per CCIE Security Lab Workbooks.</p>	<p><a href="#">rack61 calendar</a></p>	<p><a href="#">ts24</a> [ts24]  <a href="#">r1</a> [ts24, line1]  <a href="#">r2</a> [ts24, line2, FastE, Voice]  <a href="#">r3</a> [ts24, line3, ATM]  <a href="#">r4</a> [ts24, line4, ISDN]  <a href="#">r5</a> [ts24, line5, ISDN, Voice, IDS]  <a href="#">r6</a> [ts24, line6]  <a href="#">r7</a> [ts24, line7]  <a href="#">bb1</a> [ts24, line9]  <a href="#">bb2</a> [ts24, line10]  <a href="#">bb3</a> [ts24, line8]  <a href="#">pix1</a> [ts24, line13] PIX 520  <a href="#">pix2</a> [ts24, line14] PIX 501                  vpn 3060 [ts25, line] <b>NEW!</b>                  IDS 4230 [ts25, line] <b>NEW!</b>  <a href="#">frame relay switch</a> [ts24, line12]  <a href="#">cat1_3550</a> [ts24, line16]  <a href="#">cat2_3550</a> [ts24, line15]  <a href="#">solaris1</a> [ts22, line11]</p>	<p><a href="#">Clean</a></p>	 <p>Program: CCIE R/S and Security</p> <p>3550 = Yes                  ISDN = Yes                  ATM = Yes                  Voice = Yes                  PIX = Yes</p>

				<a href="#">solaris2</a> [ts22, line9] <a href="#">pix3</a> [ts24, line11] PIX 520 <b>New!</b> <a href="#">apc</a> power switch [ts22, line10] <a href="#">ACS GUI</a> [Admins Only] <a href="#">CA VNC</a> [Admins Only]		TACACS = Yes CA = Yes PIX Failover = Yes
rack 71  <a href="#">Notes</a>	<b>Santa Clara, Front Office</b>	Network  As per CCIE R/S and Security Lab Workbooks.	<a href="#">rack71 calendar</a>	<a href="#">ts71</a> [ts71] <a href="#">r1</a> , [ts71, line1] <a href="#">r2</a> , [ts71, line2] <a href="#">r3</a> , [ts71, line3] <a href="#">r4</a> , [ts71, line4] <a href="#">r5</a> , [ts71, line5, IDS] <a href="#">r6</a> , [ts71, line6] <a href="#">r7</a> , [ts71, line7] <a href="#">cat1_3550</a> , [ts71, line16] <a href="#">pix1</a> [ts71, line13] PIX 520 <a href="#">pix2</a> [ts71, line14] PIX 520 <a href="#">bb1</a> , [ts71, line9] <a href="#">bb2</a> , [ts71, line10] <a href="#">bb3</a> , [ts71, line8] <a href="#">frame relay switch</a> , [ts71, line12] <a href="#">ACS</a> [Admins Only] <a href="#">CA</a> [Admins Only]	<a href="#">Clean</a>	  Program: CCIE R/S and Security  3550 = Yes ISDN = Yes ATM = No Voice = Yes PIX = Yes TACACS = Yes CA = Yes
rack 81	<b>Fremont, TR2</b>	<a href="#">Network</a>	<a href="#">rack81 calendar</a>	<a href="#">ts22</a> [ts22] <a href="#">r1</a> [ts22, line5] <a href="#">r2</a> [ts22, line6]		Program: CCNA
rack 82	<b>Fremont, TR2</b>	<a href="#">Network</a>	<a href="#">rack82 calendar</a>	<a href="#">ts22</a> [ts22] <a href="#">r1</a> [ts22, line7] <a href="#">r2</a> [ts22, line8]		Program: CCNA
rack 91				<a href="#">ts22</a> [ts22] <a href="#">r1</a> [ts22, line1]		

	<b>Fremont, TR2</b>	<a href="#">Network</a>	<a href="#">rack91 calendar</a>	<a href="#">r2</a> [ts22, line2] <a href="#">r3</a> [ts22, line3] <a href="#">r4</a> [ts22, line4]		Program: CCNA
<b>NEW!</b> rack 92	<b>Santa Clara, TR7</b>	<a href="#">Network</a>	<a href="#">rack92 calendar</a>	<a href="#">ts92</a> [ts92] <a href="#">Rome Firewall</a> [ts92, line1] <a href="#">Oslo Firewall</a> [ts92, line2] <a href="#">Toronto Firewall</a> [ts92, line3] <a href="#">Madrid Firewall</a> [ts92, line4] <a href="#">Rome Mgmt Client</a> <a href="#">Oslo Mgmt Client</a> <a href="#">Toronto Mgmt Client</a> <a href="#">Madrid Mgmt Client</a> <a href="#">Dallas Web Server</a> <a href="#">Cat 1900</a> [ts92, line5] <a href="#">Nokia IP 650</a> [ts92, line6] <a href="#">Cisco 1005</a> router [ts92, line7]		
<b>NEW!</b> rack 93	<b>Fremont, TR1</b>	Network	<a href="#">rack93 calendar</a>	<a href="#">solaris 8</a> [ts1, line3]		
<b>NEW!</b> rack 94	<b>Fremont, TR1</b>	Network	<a href="#">rack94 calendar</a>	<a href="#">solaris 8</a> [ts1, line4]		
<b>NEW!</b> rack 95	<b>Fremont, TR1</b>	Network	<a href="#">rack95 calendar</a>	<a href="#">solaris 8</a> [ts1, line5]		
	<b>Fremont, TR1</b>	Network	<a href="#">rack96 calendar</a>	<a href="#">solaris 8</a> [ts1, line6]		

rack 96						
rack 97	<b>Fremont, TR1</b>	Network	<a href="#">rack97 calendar</a>	<a href="#">solaris 8</a> [ts1, line7]		
rack 98	<b>Fremont, TR1</b>	Network	<a href="#">rack98 calendar</a>	<a href="#">solaris 8</a> [ts1, line8]		
rack 99	<b>Fremont, TR2</b>	Network	<a href="#">rack99 calendar</a>	<a href="#">oracle_9i</a> [ts1, line1]		
<b>NEW!</b> rack 100	<b>Hello Computers</b>			<a href="#">token ring switch</a> [ts2, line8] <a href="#">ATM Is1010 switch</a> [ts22, line13]		

Rack Notes

**Rack1 Notes:**

- All routers serial 0 interfaces are connected to frame relay switch.
- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7 is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.
- Catalyst switch connections:  
 r1 e0 ---> cat1 f0/1  
 r2 f0 ---> cat1 f0/2  
 r3 e0 ---> cat1 f0/3

r4 e0 ---> cat1 f0/4  
r5 e0/0 ---> cat1 f0/5  
r6 e0 ---> cat1 f0/6  
r7 e0 ---> cat1 f0/7  
bb1 e0 ---> cat1 f0/8  
bb2 e0 ---> cat1 f0/9  
pix1 e0 --> **cat2 f0/3**  
pix1 e1 ---> cat1 f0/12  
pix1 e2 ---> cat1 f0/13  
pix2 E0 ---> **cat2 f0/4**  
pix2 E1 ---> cat1 f0/15  
ACS/CA Server ---> cat1 f0/18  
cat1 f0/22 ---> cat2 f0/22  
cat1 f0/23 ---> cat2 f0/23  
cat1 f0/24 ---> cat2 f0/24  
r1 e1 ---> **cat2 f0/1**  
r2 f0/1 ---> **cat2 f0/2**

- Frame relay switch connections:
  - Port s1 to R1 S0
  - Port s2 to R2 S0
  - Port s3 to R3 S0
  - Port s4 to R4 S0
  - Port s5 to R5 S0
  - Port s6 to R6 S0
  - Port s7 to R7 S0
  - Port s0 to BB3 S0
  - Port s0 to BB3 S0
  - Port s8 to R2S1
  - Port s9 to R4S1
- Frame relay switch is pre configured for any router to any router PVC connectivity.
- ISDN Information:

Switch type = basic-ni

Router R4 BRI:

SPID1 = 0835866101

DN1 = 8358661

SPID2 = 0835866301



DN2 = 8358663

Router R5 BRI:

SPID1 = 0835866201

DN1 = 8358662

SPID2 = 0835866401

DN2 = 8358664

- Sample ISDN config that will work on r4/r5:

```
r4#
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0
ip address 150.50.45.4 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.5 broadcast 8358662
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866101
isdn spid2 0835866301
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
-----
r5#
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0/0
ip address 150.50.45.5 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.4 broadcast 8358661
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866201
```

```
isdn spid2 0835866401
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
```

- ATM Info:  
R3 VPI = 7 and VCI = 701  
BB3 VPI = 7 and VCI = 701
- ATM Prefix = 47.00918100000000E01E796F01
- For PVC network between r3/bb3 is 150.50.101.0/24
- For SVC with arp server on bb3 network between r3/bb3 is 150.50.201.0/24
- For SVC without arp server, network between r3/bb3 is 150.50.151.0/24
- R3's host byte is always .3 and bb3's host byte is always .113.
- r3#  
interface Atm0  
ip address 150.50.101.3 255.255.255.0  
pvc 7/761  
protocol ip 150.50.101.113 broadcast  
!

---

## Rack2 Notes:

- concentrator1 public to classroom and private to inside network
  - concentrator2 public and private on cat switch
  - bastion host is accessible from outside world through RDP and VNC
  - More devices will come up on this rack in near future
-

**Rack11 Notes:**

- **NEW!** As documented in ccie security lab workbook version 20.0, pix1 e0 and pix2 e0 LAN connections have been moved to cat2 f0/3 and f0/4 respectively.
- Catalyst switch connections:
  - r1 e0 ---> cat1 f0/1
  - r2 f0 ---> cat1 f0/2
  - r3 e0 ---> cat1 f0/3
  - r4 e0 ---> cat1 f0/4
  - r5 e0/0 ---> cat1 f0/5
  - r6 e0 ---> cat1 f0/6
  - r7 e0 ---> cat1 f0/7
  - bb1 e0 ---> cat1 f0/8
  - bb2 e0 ---> cat1 f0/9
  - pix1 e0 --> **cat2 f0/3**
  - pix1 e1 ---> cat1 f0/12
  - pix1 e2 ---> cat1 f0/13
  - pix2 E0 ---> **cat2 f0/4**
  - pix2 E1 ---> cat1 f0/15
  - ACS/CA Server ---> cat1 f0/18
  - cat1 f0/22 ---> cat2 f0/22
  - cat1 f0/23 ---> cat2 f0/23
  - cat1 f0/24 ---> cat2 f0/24
  - r1 e1 ---> **cat2 f0/1**
  - r2 f0/1 ---> **cat2 f0/2**
- Frame relay switch connections:
  - Port s1 to R1 S0
  - Port s2 to R2 S0
  - Port s3 to R3 S0
  - Port s4 to R4 S0
  - Port s5 to R5 S0
  - Port s6 to R6 S0
  - Port s7 to R7 S0
  - Port s0 to BB3 S0
  - Port s8 to R2S1
  - Port s9 to R4S1
- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7

is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.

- Routers r6s1 connects to r7s1 back to back.
- ISDN Information:

Switch Type = Basic-ni

Router R4 BRI:

SPID1 = 0835866101

DN1 = 8358661

SPID2 = 0835866301

DN2 = 8358663

Router R5 BRI:

SPID1 = 0835866201

DN1 = 8358662

SPID2 = 0835866401

DN2 = 8358664

- Sample ISDN config that will work on r4/r5:

```
r4#
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0
ip address 150.50.45.4 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.5 broadcast 8358662
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866101
isdn spid2 0835866301
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
-----
r5#
```

```
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0/0
ip address 150.50.45.5 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.4 broadcast 8358661
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866201
isdn spid2 0835866401
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
```

- ATM Info:  
R3 VPI = 7 and VCI = 711  
BB3 VPI = 7 and VCI = 711
- ATM Prefix = 47.00918100000000E01E796F01
- For PVC network between r3/bb3 is 150.50.111.0/24
- For SVC with arp server on bb3 network between r3/bb3 is 150.50.211.0/24
- For SVC without arp server, network between r3/bb3 is 150.50.161.0/24
- R3's host byte is always .3 and bb3's host byte is always .113.

---

### **Rack12 Notes :**

- **NEW!** As documented in ccie security lab workbook version 20.0, pix1 e0 and pix2 e0 LAN connections have been moved to cat2 f0/3 and f0/4 respectively.
- Catalyst switch connections:  
r1 e0 ---> cat1 f0/1  
r2 f0 ---> cat1 f0/2  
r3 e0 ---> cat1 f0/3

```
r4 e0 ---> cat1 f0/4
r5 e0/0 ---> cat1 f0/5
r6 e0 ---> cat1 f0/6
r7 e0 ---> cat1 f0/7
bb1 e0 ---> cat1 f0/8
bb2 e0 ---> cat1 f0/9
pix1 e0 --> cat2 f0/3
pix1 e1 ---> cat1 f0/12
pix1 e2 ---> cat1 f0/13
pix2 E0 ---> cat2 f0/4
pix2 E1 ---> cat1 f0/15
ACS/CA Server ---> cat1 f0/18
cat1 f0/22 ---> cat2 f0/22
cat1 f0/23 ---> cat2 f0/23
cat1 f0/24 ---> cat2 f0/24
r1 e1 ---> cat2 f0/1
r2 f0/1 ---> cat2 f0/2
```

- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7 is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.
- ISDN Information:

Switch type = basic-ni

Router r4 BRI:

SPID1 = 0835866101

DN1 = 8358661

SPID2 = 0835866301

DN2 = 8358663

Router r5 BRI:

SPID1 = 0835866201

DN1 = 8358662

SPID2 = 0835866401

DN2 = 8358664

- Sample ISDN config that will work on r4/r5:

```
r4#
```

```
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0
ip address 150.50.45.4 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.5 broadcast 8358662
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866101
isdn spid2 0835866301
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
-----
r5#
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0/0
ip address 150.50.45.5 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.4 broadcast 8358661
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866201
isdn spid2 0835866401
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
```

---

**Rack13 Notes :**

- Catalyst switch connections:

r1 e0 ---> cat1 f0/1  
r2 f0 ---> cat1 f0/2  
r3 e0 ---> cat1 f0/3  
r4 e0 ---> cat1 f0/4  
r5 e0/0 ---> cat1 f0/5  
r6 e0 ---> cat1 f0/6  
r7 e0 ---> cat1 f0/7  
bb1 e0 ---> cat1 f0/8  
bb2 e0 ---> cat1 f0/9  
pix1 e0 --> **cat2 f0/3**  
pix1 e1 ---> cat1 f0/12  
pix1 e2 ---> cat1 f0/13  
pix2 E0 ---> **cat2 f0/4**  
pix2 E1 ---> cat1 f0/15  
ACS/CA Server ---> cat1 f0/18  
cat1 f0/22 ---> cat2 f0/22  
cat1 f0/23 ---> cat2 f0/23  
cat1 f0/24 ---> cat2 f0/24  
r1 e1 ---> **cat2 f0/1**  
r2 f0/1 ---> **cat2 f0/2**

- Frame relay switch connections:

Port s1 to R1 S0  
Port s2 to R2 S0  
Port s3 to R3 S0  
Port s4 to R4 S0  
Port s5 to R5 S0  
Port s6 to R6 S0  
Port s7 to R7 S0  
Port s0 to BB3 S0  
Port s8 to R2S1  
Port s9 to R4S1

- Frame relay switch is pre configured for any router to any router PVC connectivity.
- Routers r6s1 connects to r7s1 back to back.
- ISDN Information:

Switch type = basic-ni



Router R4 BRI:

SPID1 = 0835866101

DN1 = 8358661

SPID2 = 0835866301

DN2 = 8358663

Router R5 BRI:

SPID1 = 0835866201

DN1 = 8358662

SPID2 = 0835866401

DN2 = 8358664

- Sample ISDN config that will work on r4/r5:

```
r4#
```

```
isdn switch-type basic -ni  
username r5 password hello
```

```
!
```

```
interface BRI0
```

```
ip address 150.50.45.4 255.255.255.0
```

```
encapsulation ppp
```

```
dialer map ip 150.50.45.5 broadcast 8358662
```

```
dialer-group 1
```

```
isdn switch-type basic -ni
```

```
isdn spid1 0835866101
```

```
isdn spid2 0835866301
```

```
ppp authentication chap
```

```
!
```

```
dialer-list 1 protocol ip permit
```

```
!
```

```
end
```

```
-----
```

```
r5#
```

```
isdn switch-type basic -ni
```

```
username r5 password hello
```

```
!
```

```
interface BRI0/0
```

```
ip address 150.50.45.5 255.255.255.0
```

```
encapsulation ppp
dialer map ip 150.50.45.4 broadcast 8358661
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866201
isdn spid2 0835866401
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
```

---

#### Rack14 Notes :

- All routers serial 0 interfaces are connected to frame relay switch.
- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7 is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.
- Connection between routers r1/r2/r3/r4 should be frame relay encapsulation. Back to back HDLC connections between routers r1/r2/r3/r4 will not work anymore.
- Catalyst switch connections:
  - r1 e0 ---> cat1 f0/1
  - r2 f0 ---> cat1 f0/2
  - r3 e0 ---> cat1 f0/3
  - r4 e0 ---> cat1 f0/4
  - r5 e0/0 ---> cat1 f0/5
  - r6 e0 ---> cat1 f0/6
  - r7 e0 ---> cat1 f0/7
  - bb1 e0 ---> cat1 f0/8
  - bb2 e0 ---> cat1 f0/9
  - pix1 e0 --> **cat2 f0/3**
  - pix1 e1 ---> cat1 f0/12
  - pix1 e2 ---> cat1 f0/13
  - pix2 E0 ---> **cat2 f0/4**
  - pix2 E1 ---> cat1 f0/15

ACS/CA Server ---> cat1 f0/18

cat1 f0/22 ---> cat2 f0/22

cat1 f0/23 ---> cat2 f0/23

cat1 f0/24 ---> cat2 f0/24

r1 e1 ---> **cat2 f0/1**

r2 f0/1 ---> **cat2 f0/2**

- Frame relay switch connections:

Port s1 to R1 S0

Port s2 to R2 S0

Port s3 to R3 S0

Port s4 to R4 S0

Port s5 to R5 S0

Port s6 to R6 S0

Port s7 to R7 S0

Port s0 to BB3 S0

Port s8 to R2S1

Port s9 to R4S1

- Frame relay switch is pre configured for any router to any router PVC connectivity.
- Routers R6S1 and R7S1 are connected back to back
- ISDN Information:

Switch type = basic-ni

Router R4 BRI:

SPID1 = 0555100001

DN1 = 5551000

SPID2 = 0555300001

DN2 = 5553000

Router R5 BRI:

SPID1 = 0555200001

DN1 = 5552000

SPID2 = 0555400001

DN2 = 5554000

- Sample ISDN config that will work on r4/r5:

r4#

```
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0
ip address 150.50.45.4 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.5 broadcast 5552000
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0555100001
isdn spid2 0555300001
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
```

-----

r5#

```
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0/0
ip address 150.50.45.5 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.4 broadcast 5551000
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0555200001
isdn spid2 0555400001
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
```

- APC connections:  
Outlet 1 = bb2, r2  
Outlet 2 = r6, r7  
Outlet 3 = r4, r5, isdn simulator

Outlet 4 = r1, bb1, frame  
Outlet 5 = r3  
Outlet 6 = bb3  
Outlet 7 = cat1  
Outlet 8 = cat2

---

### **Rack31 Notes :**

- This rack is hosted by our Rack Rental Partner [www.6colabs.com](http://www.6colabs.com)
- After logging into the terminal server, type these host names to access devices,  
hellor1  
hellor2  
hellor3  
hellor4  
hellor5  
hellor6  
hellor7  
hellocat1  
hellocat2  
hellopix1  
hellopix2  
hellobb1  
hellobb2  
hellobb3  
helloframe
- Do not use host names r1, r2 etc to access this rack.
- Catalyst Switch connections:  
R1 E0/0 -> cat1 f0/8  
R2 E0/0 -> cat1 f0/2  
R3 E0/0 -> cat1 f0/23  
R4 E0/0 -> cat1 f0/5  
R5 E0/0 -> cat1 f0/6  
R6 E0/0 -> cat1 f0/3  
R7 E0/0 -> cat1 f0/4

BB1 E0/0 -> cat1 f0/9

BB2 E0/0 -> cat1 f0/1

R1 E0/1 -> cat2 f0/8

R2 E0/1 -> cat2 f0/2

Pix1 e0 -> cat1 f0/10

Pix1 e1 -> cat1 f0/11

Pix2 e0 -> cat1 f0/12

Pix2 e1 -> cat1 f0/13

cat1 f0/19 -> cat2 f0/19

cat1 f0/20 -> cat2 f0/20

TACACS/TFTP -> cat1 f0/21

- Frame relay switch connections:

R1 S0/0 -> S 1/7

R2 S0/0 -> S 1/1

R3 S0/0 -> S 0/0

R4 S0/0 -> S 1/5

R5 S0/0 -> S 1/2

R6 S0/0 -> S 1/3

R7 S0/0 -> S 1/4

R2 S0/0 -> S 1/2

R4 S0/0 -> S 1/0

BB3 S0/0 -> s0/1

- Routers r6s1 connects to r7s1 back to back with r6 as DCE.

- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7 is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.

- ISDN Information:

Switch Type = Basic-ni

Router R4 BRI:

SPID1 = 0780100001

DN1 = 7801000

SPID2 = 0780300001

DN2 = 7803000

Router R5 BRI:

SPID1 = 0780200001

```
DN1 = 7802000
SPID2 = 0780400001
DN2 = 7804000
```

- Sample ISDN config that will work on r4/r5:

```
r4#
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0
ip address 150.50.45.4 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.5 broadcast 8358662
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866101
isdn spid2 0835866301
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
-----
r5#
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0/0
ip address 150.50.45.5 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.4 broadcast 8358661
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866201
isdn spid2 0835866401
ppp authentication chap
!
dialer-list 1 protocol ip permit
```

!

end

- ATM PVC on r3 is 0/100 and bb3 is 0/101
  - ATM Prefix is: 47.0091.8100.0000.1234.5678.1234
  - APC information:
    - outlet 1 = hellor2, hellobb2
    - outlet 2 = hellor6, hellor7
    - outlet 3 = hellor4, hellor5, isdn simulator
    - outlet 4 = hellor1, hellobb1, helloframe
    - outlet 5 = hellor3
    - outlet 6 = hellobb3
    - outlet 7 = hellocat1
    - outlet 8 = hellocat2
- 

### **Rack32 Notes :**

- This rack is hosted by our Rack Rental Partner [www.6colabs.com](http://www.6colabs.com)
- After logging into the terminal server, type these host names to access devices,
  - hellor1
  - hellor2
  - hellor3
  - hellor4
  - hellor5
  - hellor6
  - hellor7
  - hellocat1
  - hellocat2
  - hellopix1
  - hellopix2
  - helloframe
  - hellobb1
  - hellobb2
  - hellobb3
- Do not use host names r1, r2 etc to access this rack.



- Catalyst Switch connections:

R1 E0/0 -> cat1 f0/8  
R2 E0/0 -> cat1 f0/2  
R3 E0/0 -> cat1 f0/23  
R4 E0/0 -> cat1 f0/5  
R5 E0/0 -> cat1 f0/6  
R6 E0/0 -> cat1 f0/3  
R7 E0/0 -> cat1 f0/4  
BB1 E0/0 -> cat1 f0/9  
BB2 E0/0 -> cat1 f0/1  
R1 E0/1 -> cat2 f0/8  
R2 E0/1 -> cat2 f0/2  
cat1 f0/19 -> cat2 f0/19  
cat1 f0/20 -> cat2 f0/20

- Frame relay switch connections:

R1 S0/0 -> S 1/7  
R2 S0/0 -> S 1/1  
R3 S0/0 -> S 0/0  
R4 S0/0 -> S 1/5  
R5 S0/0 -> S 1/2  
R6 S0/0 -> S 1/3  
R7 S0/0 -> S 1/4  
R2 S0/0 -> S 1/2  
R4 S0/0 -> S 1/0  
BB3 S0/0 -> s0/1

- Routers r6s1 connects to r7s1 back to back with r6 as DCE.

- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7 is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.

- ISDN Information:

Switch Type = Basic-ni

Router R4 BRI:

SPID1 = 0780100001  
DN1 = 7801000  
SPID2 = 0780300001  
DN2 = 7803000

Router R5 BRI:

SPID1 = 0780200001

DN1 = 7802000

SPID2 = 0780400001

DN2 = 7804000

- Sample ISDN config that will work on r4/r5:

```
r4#
```

```
isdn switch-type basic -ni  
username r5 password hello
```

```
!
```

```
interface BRI0
```

```
ip address 150.50.45.4 255.255.255.0
```

```
encapsulation ppp
```

```
dialer map ip 150.50.45.5 broadcast 8358662
```

```
dialer-group 1
```

```
isdn switch-type basic -ni
```

```
isdn spid1 0835866101
```

```
isdn spid2 0835866301
```

```
ppp authentication chap
```

```
!
```

```
dialer-list 1 protocol ip permit
```

```
!
```

```
end
```

```
-----
```

```
r5#
```

```
isdn switch-type basic -ni
```

```
username r5 password hello
```

```
!
```

```
interface BRI0/0
```

```
ip address 150.50.45.5 255.255.255.0
```

```
encapsulation ppp
```

```
dialer map ip 150.50.45.4 broadcast 8358661
```

```
dialer-group 1
```

```
isdn switch-type basic -ni
```

```
isdn spid1 0835866201
```

```
isdn spid2 0835866401
```

```
ppp authentication chap
!  
dialer-list 1 protocol ip permit
!  
end
```

- ATM PVC on r3 is 0/100 and bb3 is 0/101
  - ATM Prefix is: 47.0091.8100.0000.1234.5678.1234
  - APC information:
    - outlet 1 = hellor2, hellobb2
    - outlet 2 = hellor6, hellor7
    - outlet 3 = hellor4, hellor5, isdn simulator
    - outlet 4 = hellor1, hellobb1, helloframe
    - outlet 5 = hellor3
    - outlet 6 = hellobb3
    - outlet 7 = hellocat1
    - outlet 8 = hellocat2
- 

### **Rack33 Notes :**

- This rack is hosted by our Rack Rental Partner [www.racktimerentals.com](http://www.racktimerentals.com)
- After logging into the terminal server, type these host names to access devices,
  - r1
  - r2
  - r3
  - r4
  - r5
  - r6
  - r7
  - cat1
  - cat2
  - frame
  - bb1
  - bb2
  - bb3

- Catalyst switch connections:

r1 e0 ---> cat1 f0/1  
r2 f0 ---> cat1 f0/2  
r3 e0 ---> cat1 f0/3  
r4 e0 ---> cat1 f0/4  
r5 e0/0 ---> cat1 f0/5  
r6 e0 ---> cat1 f0/6  
r7 e0 ---> cat1 f0/7  
bb1 e0 ---> cat1 f0/8  
bb2 e0 ---> cat1 f0/9  
pix1 e0 --> **cat2 f0/3**  
pix1 e1 ---> cat1 f0/12  
pix1 e2 ---> cat1 f0/13  
pix2 E0 ---> **cat2 f0/4**  
pix2 E1 ---> cat1 f0/15  
ACS/CA Server ---> cat1 f0/18  
cat1 f0/22 ---> cat2 f0/22  
cat1 f0/23 ---> cat2 f0/23  
cat1 f0/24 ---> cat2 f0/24  
r1 e1 ---> **cat2 f0/1**  
r2 f0/1 ---> **cat2 f0/2**

- Frame relay switch connections:

R1 S0/0 -> S 1/7  
R2 S0/0 -> S 1/1  
R3 S0/0 -> S 0/0  
R4 S0/0 -> S 1/5  
R5 S0/0 -> S 1/2  
R6 S0/0 -> S 1/3  
R7 S0/0 -> S 1/4  
R2 S0/0 -> S 1/2  
R4 S0/0 -> S 1/0  
BB3 S0/0 -> s0/1

- Routers r6s1 connects to r7s1 back to back with r6 as DCE.

- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7 is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.

- ISDN Information:

Switch Type = Basic-ni

Router R4 BRI:

SPID1 = 0835866101

DN1 = 8358661

SPID2 = 0835866301

DN2 = 8358663

Router R5 BRI:

SPID1 = 0835866201

DN1 = 8358662

SPID2 = 0835866401

DN2 = 8358664

- Sample ISDN config that will work on r4/r5:

```
r4#
```

```
isdn switch-type basic -ni  
username r5 password hello
```

```
!
```

```
interface BRI0
```

```
ip address 150.50.45.4 255.255.255.0
```

```
encapsulation ppp
```

```
dialer map ip 150.50.45.5 broadcast 8358662
```

```
dialer-group 1
```

```
isdn switch-type basic -ni
```

```
isdn spid1 0835866101
```

```
isdn spid2 0835866301
```

```
ppp authentication chap
```

```
!
```

```
dialer-list 1 protocol ip permit
```

```
!
```

```
end
```

```
-----
```

```
r5#
```

```
isdn switch-type basic -ni
```

```
username r5 password hello
```

```
!
```

```
interface BRI0/0
```

```
ip address 150.50.45.5 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.4 broadcast 8358661
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866201
isdn spid2 0835866401
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
```

- ATM PVC on r3 is 7/733 and bb3 is 7/733
- ATM Prefix is:
- For PVC network between r3/bb3 is 150.50.133.0/24
- For SVC with arp server on bb3 network between r3/bb3 is 150.50.233.0/24
- For SVC without arp server, network between r3/bb3 is 150.50.183.0/24
- R3's host byte is always .3 and bb3's host byte is always .113.
- You have enable access to bb3 on this rack.

---

#### **Rack34 Notes :**

- This rack is hosted by our Rack Rental Partner [www.racktimerentals.com](http://www.racktimerentals.com)
- After logging into the terminal server, type these host names to access devices,  
r1  
r2  
r3  
r4  
r5  
r6  
r7  
cat1  
cat2  
frame

bb1  
bb2  
bb3

- Catalyst switch connections:

r1 e0 ---> cat1 f0/1  
r2 f0 ---> cat1 f0/2  
r3 e0 ---> cat1 f0/3  
r4 e0 ---> cat1 f0/4  
r5 e0/0 ---> cat1 f0/5  
r6 e0 ---> cat1 f0/6  
r7 e0 ---> cat1 f0/7  
bb1 e0 ---> cat1 f0/8  
bb2 e0 ---> cat1 f0/9  
pix1 e0 --> **cat2 f0/3**  
pix1 e1 ---> cat1 f0/12  
pix1 e2 ---> cat1 f0/13  
pix2 E0 ---> **cat2 f0/4**  
pix2 E1 ---> cat1 f0/15  
ACS/CA Server ---> cat1 f0/18  
cat1 f0/22 ---> cat2 f0/22  
cat1 f0/23 ---> cat2 f0/23  
cat1 f0/24 ---> cat2 f0/24  
r1 e1 ---> **cat2 f0/1**  
r2 f0/1 ---> **cat2 f0/2**

- Frame relay switch connections:

R1 S0/0 -> S 1/7  
R2 S0/0 -> S 1/1  
R3 S0/0 -> S 0/0  
R4 S0/0 -> S 1/5  
R5 S0/0 -> S 1/2  
R6 S0/0 -> S 1/3  
R7 S0/0 -> S 1/4  
R2 S0/0 -> S 1/2  
R4 S0/0 -> S 1/0  
BB3 S0/0 -> s0/1

- Routers r6s1 connects to r7s1 back to back with r6 as DCE.

- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7

is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.

- ISDN Information:

Switch Type = Basic-ni

Router R4 BRI:

SPID1 = 0835866101

DN1 = 8358661

SPID2 = 0835866301

DN2 = 8358663

Router R5 BRI:

SPID1 = 0835866201

DN1 = 8358662

SPID2 = 0835866401

DN2 = 8358664

- Sample ISDN config that will work on r4/r5:

```
r4#
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0
ip address 150.50.45.4 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.5 broadcast 8358662
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866101
isdn spid2 0835866301
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
-----
r5#
isdn switch-type basic -ni
```



```
username r5 password hello
!  
interface BRI0/0  
ip address 150.50.45.5 255.255.255.0  
encapsulation ppp  
dialer map ip 150.50.45.4 broadcast 8358661  
dialer-group 1  
isdn switch-type basic -ni  
isdn spid1 0835866201  
isdn spid2 0835866401  
ppp authentication chap  
!  
dialer-list 1 protocol ip permit  
!  
end
```

- ATM PVC on r3 is 7/733 and bb3 is 7/733
- ATM Prefix is:
- For PVC network between r3/bb3 is 150.50.133.0/24
- For SVC with arp server on bb3 network between r3/bb3 is 150.50.233.0/24
- For SVC without arp server, network between r3/bb3 is 150.50.183.0/24
- R3's host byte is always .3 and bb3's host byte is always .113.
- You have enable access to bb3 on this rack.

---

#### **Rack41 Notes:**

- Catalyst 2900XL switch is preconfigured and does not need to be configured during the lab. Please disregard CSS1 lab workbook lab exercise 1.3 and 1.4. Use has no access to catalyst switch on this rack.
- solaris1 and solaris2 are added
- r4 has IDS image
- TACACS server web interface is not accessible from internet at this time.
- Ethernet port assignments are,  
f0/1 = r1e0  
f0/2 = r2e0

f0/3 = r3e0  
f0/4 = r4e0  
f0/5 = pix1e0  
f0/6 = pix1e1  
f0/7 = pix2e0  
f0/8 = pix2e1  
f0/9 = AAA & CA server  
f0/10 = CSPM with VNC access  
f0/11 = solaris1  
f0/12 = solaris2

---

**Rack42 Notes:**

- Catalyst 2900XL switch is preconfigured and does not need to be configured during the lab. Please disregard CSS1 lab workbook lab exercise 1.3 and 1.4. Use has no access to catalyst switch on this rack.
  - CA/TACACS server is not installed on rack42 at this time.
  - Ethernet port assignments are,  
f0/13 = r1e0  
f0/14 = r2e0  
f0/15 = r3e0  
f0/16 = r4e0  
f0/17 = pix1e0  
f0/18 = pix1e1  
f0/19 = pix2e0  
f0/20 = pix2e1  
f0/21 = AAA & CA server
- 

**Rack43 Notes:**

- Catalyst 2900XL switch is preconfigured and does not need to be configured during the lab.
- Switch ports connections:

```
r1eo --> switch f0/5
r2eo --> switch f0/6
r3eo --> switch f0/7
r4eo --> switch f0/8
```

---

**Rack44 Notes:**

- Routers r2 and r4 are DCE. Verify by typing show controller serial 0 command to check which end is DTE and which end is DCE.
- 

**Rack45 Notes:**

- Catalyst 2900XL switch is preconfigured and does not need to be configured during the lab.
  - Switch ports connections:

```
r1eo --> switch f0/1
r2eo --> switch f0/2
r3eo --> switch f0/3
r4eo --> switch f0/4
pix1 e0 --> switch f0/5
pix1 e1 --> switch f0/6
pix2 e0 --> switch f0/7
pix2 e1 --> switch f0/8
```
- 

**Rack46 Notes:**

- Catalyst 2900XL switch is preconfigured and does not need to be configured during the lab.
- Switch ports connections:

```
r1eo --> switch f0/1
r2eo --> switch f0/2
```

r3e0 --> switch f0/3  
r4e0 --> switch f0/4

---

### Rack61 Notes:

- Catalyst switch connections:

r1 e0 ---> cat1 f0/1  
r2 f0 ---> cat1 f0/2  
r3 e0 ---> cat1 f0/3  
r4 e0 ---> cat1 f0/4  
r5 e0/0 ---> cat1 f0/5  
r6 e0 ---> cat1 f0/6  
r7 e0 ---> cat1 f0/7  
bb1 e0 ---> cat1 f0/8  
bb2 e0 ---> cat1 f0/9  
pix1 e0 --> **cat2 f0/3**  
pix1 e1 ---> cat1 f0/12  
pix1 e2 ---> cat1 f0/13  
pix2 e0 ---> **cat2 f0/4**  
pix2 e1 ---> cat1 f0/15  
pix3 e0 ---> **cat2 f0/5**  
pix3 e1 ---> **cat2 f0/6**  
pix3 e2 ---> **cat2 f0/7**  
ACS/CA Server ---> cat1 f0/18  
cat1 f0/22 ---> cat2 f0/22  
cat1 f0/23 ---> cat2 f0/23  
cat1 f0/24 ---> cat2 f0/24  
r1 e1 ---> **cat2 f0/1**  
r2 f0/1 ---> **cat2 f0/2**

- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7 is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.
- Frame relay switch connections:  
Port s1 to R1 S0  
Port s2 to R2 S0

Port s3 to R3 S0  
Port s4 to R4 S0  
Port s5 to R5 S0  
Port s6 to R6 S0  
Port s7 to R7 S0  
Port s0 to BB3 S0  
Port s0 to BB3 S0  
Port s8 to R2S1  
Port s9 to R4S1

- Frame relay switch is pre configured for any router to any router PVC connectivity.
- ISDN Information:

Switch type = basic-ni

Router R4 BRI:

SPID1 = 0835866101  
DN1 = 8358661  
SPID2 = 0835866301  
DN2 = 8358663

Router R5 BRI:

SPID1 = 0835866201  
DN1 = 8358662  
SPID2 = 0835866401  
DN2 = 8358664

- Sample ISDN config that will work on r4/r5:

```
r4#  
isdn switch-type basic -ni  
username r5 password hello  
!  
interface BRI0  
ip address 150.50.45.4 255.255.255.0  
encapsulation ppp  
dialer map ip 150.50.45.5 broadcast 8358662  
dialer-group 1  
isdn switch-type basic -ni  
isdn spid1 0835866101
```

```
isdn spid2 0835866301
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
-----
r5#
isdn switch-type basic -ni
username r5 password hello
!
interface BRI0/0
ip address 150.50.45.5 255.255.255.0
encapsulation ppp
dialer map ip 150.50.45.4 broadcast 8358661
dialer-group 1
isdn switch-type basic -ni
isdn spid1 0835866201
isdn spid2 0835866401
ppp authentication chap
!
dialer-list 1 protocol ip permit
!
end
```

- ATM Info:  
R3 VPI = 7 and VCI = 761  
BB3 VPI = 7 and VCI = 761
- ATM Prefix = 47.00918100000000E01E796F01
- For PVC network between r3/bb3 is 150.50.161.0/24
- For SVC with arp server on bb3 network between r3/bb3 is 150.50.216.0/24
- For SVC without arp server, network between r3/bb3 is 150.50.166.0/24
- R3's host byte is always .3 and bb3's host byte is always .113.
- Working ATM Config:  
r3#  
interface Atm0

```
ip address 150.50.161.3 255.255.255.0
pvc 7/761
protocol ip 150.50.161.113 broadcast
!
```

- There is no need to connect to ACS server web interface through the internet. If you would still like to access it, then after you enter login and password information, it will fail to load next page. Simply replace private ip address in the URL, e.g. 192.168.150.150 to rack61tacacs.hellocomputers.com. Leave everything else before and after IP address intact. This is due to a bug in ACS.
- After initial user logon to the APC line, APC power switch username is apc and password is apc. APC power switch ports are connected to:

```
apc port1: r1
apc port2: r2
apc port3: r3
apc port4: r4
apc port5: r5
apc port6: r6
apc port7: r7
apc port8: ISDN Simulator
```

---

### **Rack71 Notes:**

- Catalyst switch connections:

```
r1 e0 ---> cat1 f0/1
r2 e0/0 ---> cat1 f0/2
r3 e0 ---> cat1 f0/3
r4 e0 ---> cat1 f0/4
r5 e0/0 ---> cat1 f0/5
r6 e0 ---> cat1 f0/6
r7 e0 ---> cat1 f0/7
bb1 e0 ---> cat1 f0/8
bb2 e0 ---> cat1 f0/9
```

bb3 e0 ---> cat1 f0/10  
pix1 e0 --> **cat2 f0/3**  
pix1 e1 ---> cat1 f0/12  
pix1 e2 ---> cat1 f0/13  
pix2 E0 ---> **cat2 f0/4**  
pix2 E1 ---> cat1 f0/15  
ACS/CA Server ---> cat1 f0/18  
cat1 f0/22 ---> cat2 f0/22  
cat1 f0/23 ---> cat2 f0/23  
cat1 f0/24 ---> cat2 f0/24  
r1 e1 ---> **cat2 f0/1**  
r2 e0/1 ---> **cat2 f0/2**

- Frame relay switch is fully meshed. Router r1 has PVCs to r2 thru r8. DLCI numbers are 1[From router][To router], e.g. DLCI between r3 and r7 is 137 on r3 and 173 on r7 and DLCI between r4 and r6 is 146 on r4 and 164 on r6.
- Frame relay switch connections:
  - Port s1 to R1 S0
  - Port s2 to R2 S0
  - Port s3 to R3 S0
  - Port s4 to R4 S0
  - Port s5 to R5 S0
  - Port s6 to R6 S0
  - Port s7 to R7 S0
  - Port s0 to BB3 S0
  - Port s0 to BB3 S0
  - Port s8 to R2S1
  - Port s9 to R4S1
- Frame relay switch is pre configured for any router to any router PVC connectivity.
- ISDN Information:

Switch type = basic-ni

Router R4 BRI:  
SPID1 = 11110101  
DN1 = 1111  
SPID2 = 11120101  
DN2 = 1112



Router R5 BRI:

SPID1 = 22210101

DN1 = 2222

SPID2 = 22220101

DN2 = 2222

- Sample ISDN config that will work on r4/r5:

```
r4#
```

```
isdn switch-type basic -ni
```

```
username r5 password hello
```

```
!
```

```
interface BRI0
```

```
ip address 150.50.45.4 255.255.255.0
```

```
encapsulation ppp
```

```
dialer map ip 150.50.45.5 broadcast 2222
```

```
dialer-group 1
```

```
isdn switch-type basic -ni
```

```
isdn spid1 11110101
```

```
isdn spid2 11120101
```

```
ppp authentication chap
```

```
!
```

```
dialer-list 1 protocol ip permit
```

```
!
```

```
end
```

```
-----
```

```
r5#
```

```
isdn switch-type basic -ni
```

```
username r5 password hello
```

```
!
```

```
interface BRI0/0
```

```
ip address 150.50.45.5 255.255.255.0
```

```
encapsulation ppp
```

```
dialer map ip 150.50.45.4 broadcast 1111
```

```
dialer-group 1
```

```
isdn switch-type basic -ni
```

```
isdn spid1 22210101
```

```
isdn spid2 22220101
```

```
ppp authentication chap
!  
dialer-list 1 protocol ip permit
!  
end
```

---

## Clean Rack Utility

We have developed clean rack utility for automated cleanup of device current configurations. Run it only during your time slot. It generally takes about 7-8 minutes to finish. Once you start the script do not resize your browser or do anything else until you see a message that says all done and browser icon stops moving on the top right hand corner. If you encounter any problem with this script, please open the [ticket](#) or send email to [support@hellocomputers.com](mailto:support@hellocomputers.com)

