



Data Center Rack Rental Access Guide

Last updated: February 3, 2014

Resources

This guide describes how to use the INE CCIE Data Center Rack Rentals that complement the CCIE Data Center Technology Lab Online Workbook.

Important Notes

- To rent Data Center racks, you must have purchased the Data Center Online Workbook. You can read about, preview, and purchase the workbook [here](#).
- You may rent a Data Center rack for up to 85 hours per month. Data Center rack add-ons are also limited to 85 hours per month.

Common Problems

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Common Problems

Telnet Connection Warning

Some Telnet clients will close the Telnet window if the connection cannot be established. This behavior prevents you from seeing error messages that indicate the line is in use, so it's a good practice to disable this behavior in your Telnet client. If you do not see a command prompt when you establish a Telnet connection, you may need to press Enter to "wake up" the device.

Important Configuration Changes

When you load a saved configuration into the UCS, you must change the interfaces in use to match the Data Center rack you are using; our automation cannot make this modification for you. You will find the necessary configuration changes in the reminder email you receive before your rack session.

Note:

Currently, ONLY UCS can be loaded. N7K and N5K cannot be loaded at this time. Thank you for your patience as we work to remove this limitation.

Port Speed Information

If you receive an error message stating, "SFP validation failed," you must manually set the port speed to 1G (1000) because Nexus does not support auto-negotiation from 10G to 1G.

Scheduling a Rack Session

You schedule your Data Center rack session through your Members account. When you sign in to the Members site, you will see a page like this:

Training

- [Home](#)
- [All Access Pass](#)
- [Workbooks](#)
- [Rack Rentals](#)
- [Mock Labs](#)
- [Graded Labs](#)
- [Bookmarks](#)
- Resources
- [Store](#)
- [FAQs](#)
- [INE Homepage](#)
- [Online Community](#)
- Account Information
- [Profile](#)
- [Account Activity](#)
- [Order History](#)
- [Log Out](#)

My Products

For Workbooks click here.

Data Center

Product Name	Format
Video-on-Demand	
CCIE Data Center: Nexus 1000v on UCS Download (Now Available!)	download
CCIE Data Center: Nexus Course Download CURRENT	download
CCIE Data Center: Nexus NX-OS Primer Course Download CURRENT	download
CCIE Data Center: Storage Course Download CURRENT	download
CCIE Data Center: Unified Communications on UCS (Now Available!)	stream
CCIE Data Center: Unified Communications on UCS Download (Now Available!)	download
CCIE Data Center: Unified Computing Course Download CURRENT	download
CCIE Data Center: Written Bootcamp CURRENT	stream

Live Courses

Product Name	Format
CCIE Routing & Switching Troubleshooting Bootcamp CURRENT	download
Video-on-Demand	
CCIE Routing & Switching Bootcamp CURRENT	stream
Live Classes	
CCIE Routing & Switching Bootcamp Live CURRENT	download

Free CCNA Streaming

[Routing & Switching](#) [Voice](#)

Current Token Balance
181 Tokens

[Purchase Tokens](#)

When you click **Rack Rentals** on the left side of the page, you will see this:

Training

- [Videos](#)
- [Live Courses](#)
- [All Access Pass](#)
- [Workbooks](#)
- [Rack Rentals](#)**
- [Mock Labs](#)
- [Graded Labs](#)
- [Bookmarks](#)
- Resources
- [Store](#)
- [FAQs](#)
- [INE Homepage](#)
- [Online Community](#)
- Account Information
- [Profile](#)
- [Account Activity](#)
- [Order History](#)
- [Log Out](#)

Rack Rentals

[Set a Rack Password](#)

Overview
Upcoming Rentals
Past Rentals

Config Manager
Purchase Tokens

CCIE Routing & Switching

Schedule/Cancel Session

4 Tokens/Hour

[Rack Resources](#)

CCIE Voice

Schedule/Cancel Session

3 Tokens/Hour

[Rack Resources](#)

CCIE R&S Troubleshooting

Schedule / Cancel Session

10 Tokens/Hour

[Schedule Graded Lab](#)

CCIE Data Center

Schedule/Cancel Session

7 Tokens/Hour

[Rack Resources](#)

CCIE Service Provider

Schedule/Cancel Session

6 Tokens/Hour

[Rack Resources](#)

CCIE Security

Schedule/Cancel Session

3 Tokens/Hour

[Rack Resources](#)

Click **Schedule/Cancel Session** to see the rack session booking page:

 Data Center Rack Rental [Quick Tour](#)

BASE 5K/7K
UCS/SAN ADD-ON +\$
ACE ADD-ON +\$
N2K/SAN ADD-ON +\$

2013-08-19 01:30 PM to 2013-08-19 04:30 PM

Start Date	Duration	End Date	
2013-08-19 01:30 PM	— 3h →	2013-08-19 04:30 PM	Rent Now 20 Tokens

Current Balance

1002 tokens

Reserved Sessions

[Active Sessions](#) [Upcoming Sessions](#)

You do not have any upcoming sessions.

In this section, enter a preferred start date and time for your rack rental session.

In this section, enter a preferred end date and time for your rack rental session.

This panel shows all sessions that are available to rent based on your chosen start and end times.

FULLY BOOKED means that the session is not available to rent.

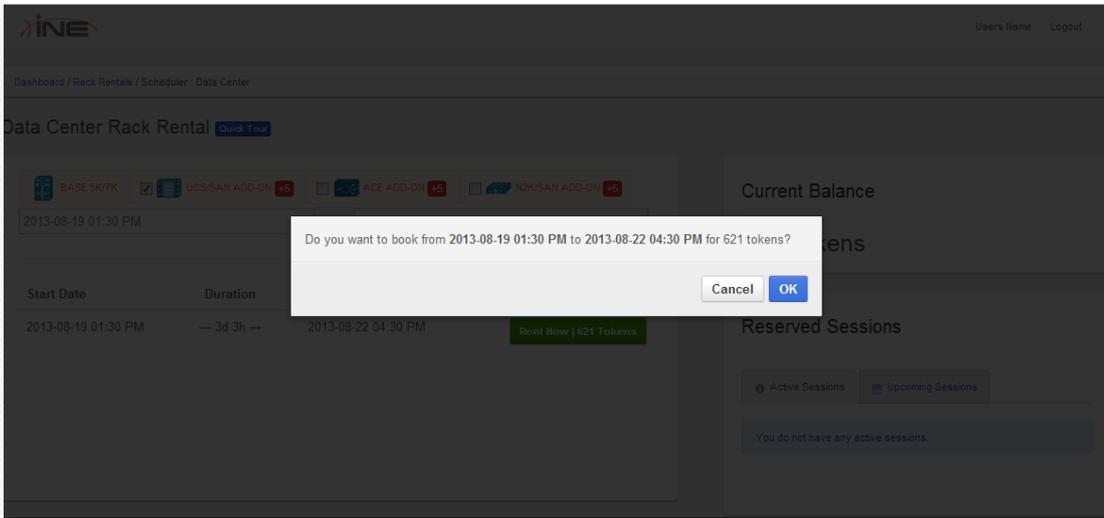
Book means that you may reserve this session. It also displays the number of tokens required to reserve this session.

Rent Now means that the session is available for immediate rental.

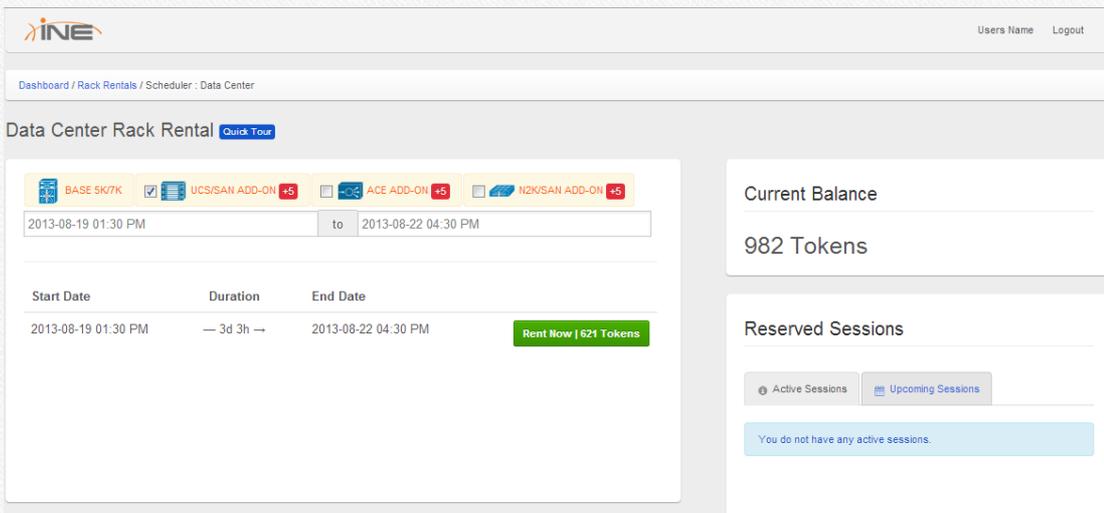
Note:

Before booking or reserving a session, select any add-ons you want by using the check boxes above the calendar tool.

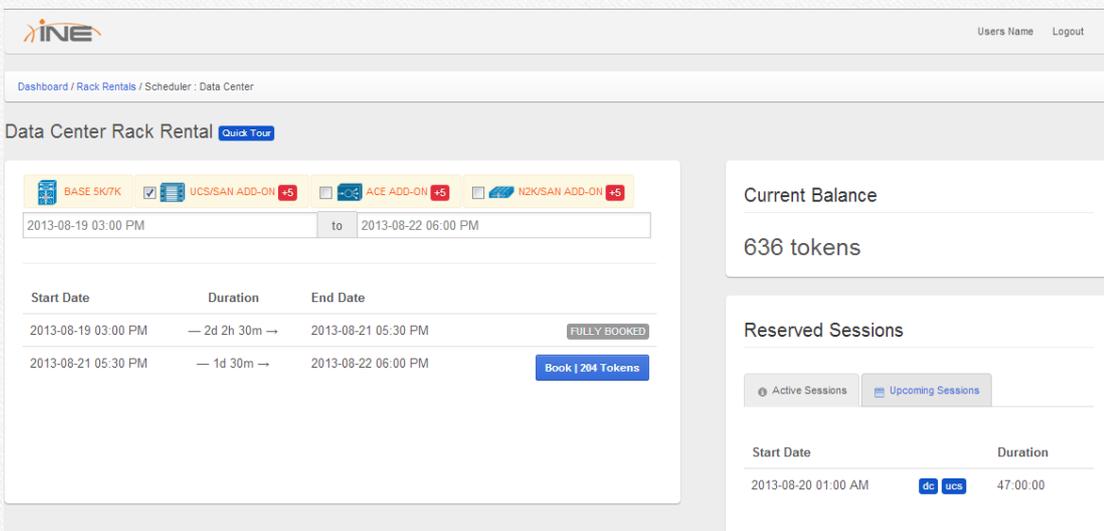
When you have chosen your session, a dialog box asks you to confirm the session reservation and displays the number of tokens required. Click **OK** to reserve the session. Then click **OK** again when you see confirmation of your reservation.



The **Current Balance** area displays the number of tokens available in your account.



In the **Reserved Sessions** area, the **Active Sessions** tab displays any sessions that have already started. These sessions cannot be cancelled. The **Upcoming Sessions** tab displays your reserved sessions, which can be cancelled at any time before the start time of the session.



Passwords

Device	IP Address	Username/password (case-sensitive)
Apache1	10.0.110.1	root / Cciedc01
Apache2	10.0.110.2	root / Cciedc01
Apache3	10.0.110.3	root / Cciedc01
ESXi1	10.0.115.11	root / cciedc01

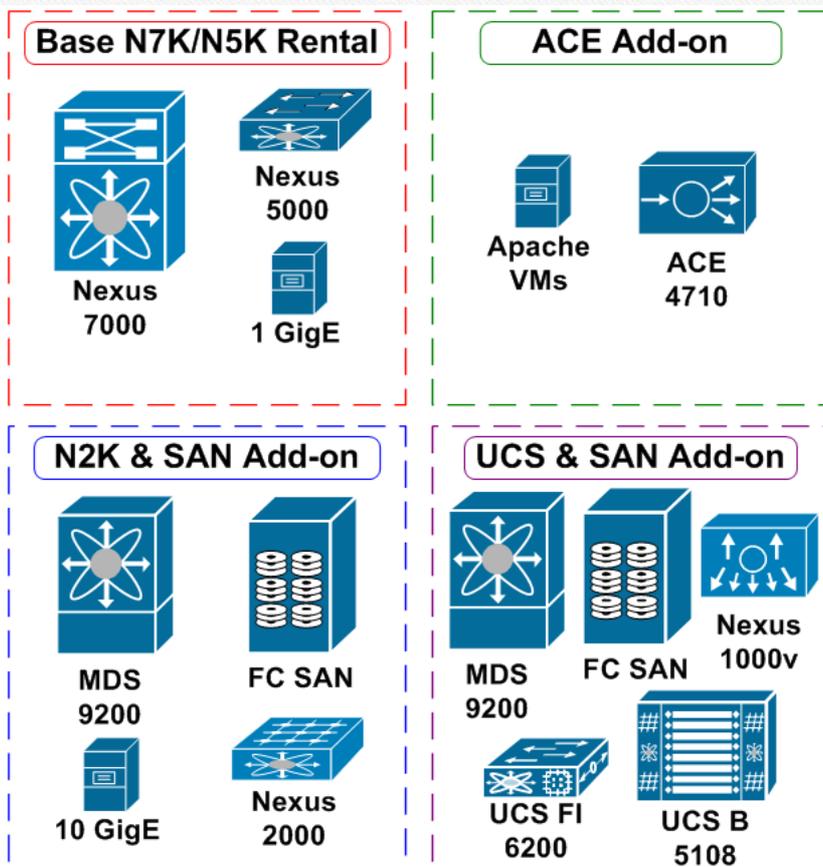
ESXi2	10.0.115.12	root / cciedc01
ESXi-VMFEX	10.0.115.21	root / cciedc01
Win2k8-BM	10.0.114.21	Administrator / Cciedc01
ACE		cisco / ciscocisco or admin / Cciedc01
N7K and N5K		cisco / cisco
MDS		cisco / cisco (role = cisco)

Scheduling Data Center Rack Add-ons

Data Center Rack Rentals are modular.

By default, each 'Base 5K/7K' rental includes access to 2 x Nexus 7000 VDCs, 2 x Nexus 5000s, and 2 x Windows Server Virtual Machines.

- By selecting the **UCS/SAN Add-On**, you also get access to the UCS Blade Server chassis, UCS 6200 Fabric Interconnects, MDS 9200 SAN Switches, and the Fibre Channel SAN.
- By selecting the **N2K/SAN Add-On**, you also get access to the Nexus 2000 Fabric Extenders with a 10GigE attached server, MDS 9200 SAN Switches, and the Fibre Channel SAN.
- By selecting the **ACE Add-On**, you also get access to the ACE 4710 application switch.



Note that not all labs require each Add-On. You can determine which labs need which Add-Ons by comparing the Data Center Rack Rental Access Guide CCIE DC Physical Diagram, located in the Resources section in the upper-right corner of this page, with the diagram for the individual workbook section that you are working on.

Use the following general guidelines to help determine which add-ons you need:

- The **Nexus** labs require only the **Base N5K/N7K** rental, unless you are working on the Fabric Extender or SAN labs, in which case they require the **N2K/SAN Add-On**.
- The **UCS** labs require the Base N5K/N7K rental plus the **UCS Add-On**.
- The **ACE** labs require the Base N5K/N7K rental plus the **ACE Add-On**.

Loading and Saving Configurations

When you load a saved configuration into the UCS, you must change the interfaces in use to match the Data Center rack you are using; our automation cannot make this modification for you. You will find the necessary configuration changes in the reminder email you receive before your rack session.

Before saving any configuration, make sure that all of your devices are at the command prompt or a login prompt.

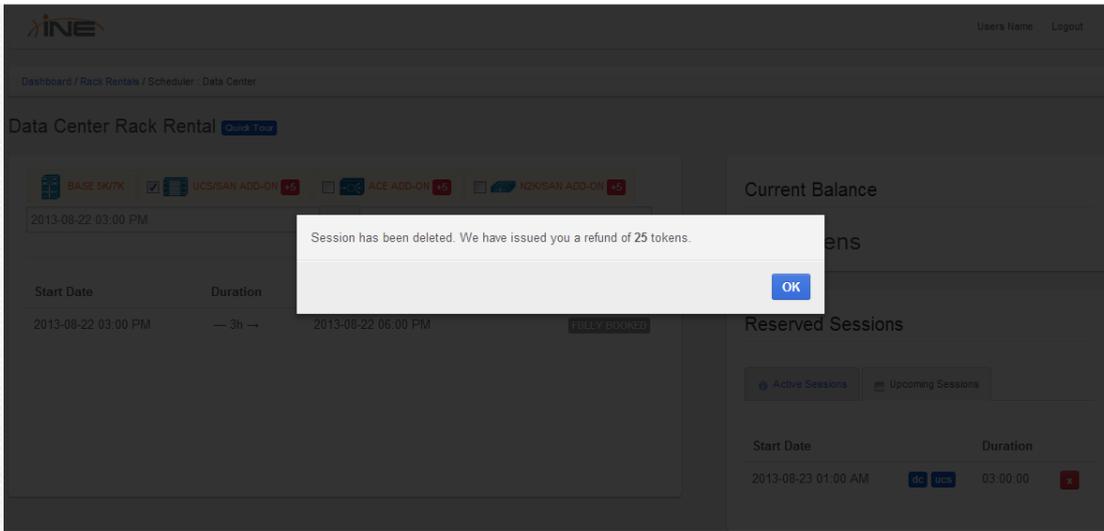
Canceling a Rack Session

You can cancel a rack session in your Members account. Click **Rack Rentals** on the left side of the page, and then click the **Upcoming Rentals** tab at the top. The page should look like this:

You will see your booked session(s) on the **Upcoming Sessions** tab. To cancel a session, click the red **X** button on this tab or in the control panel.

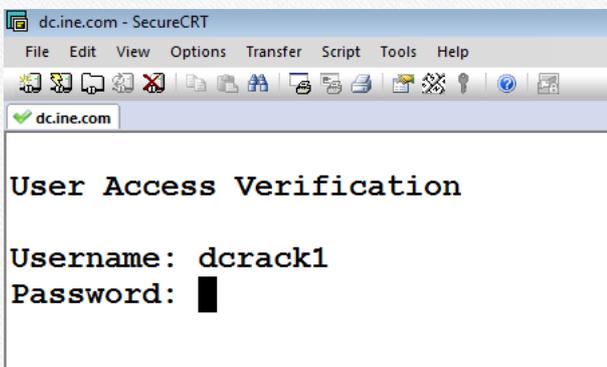
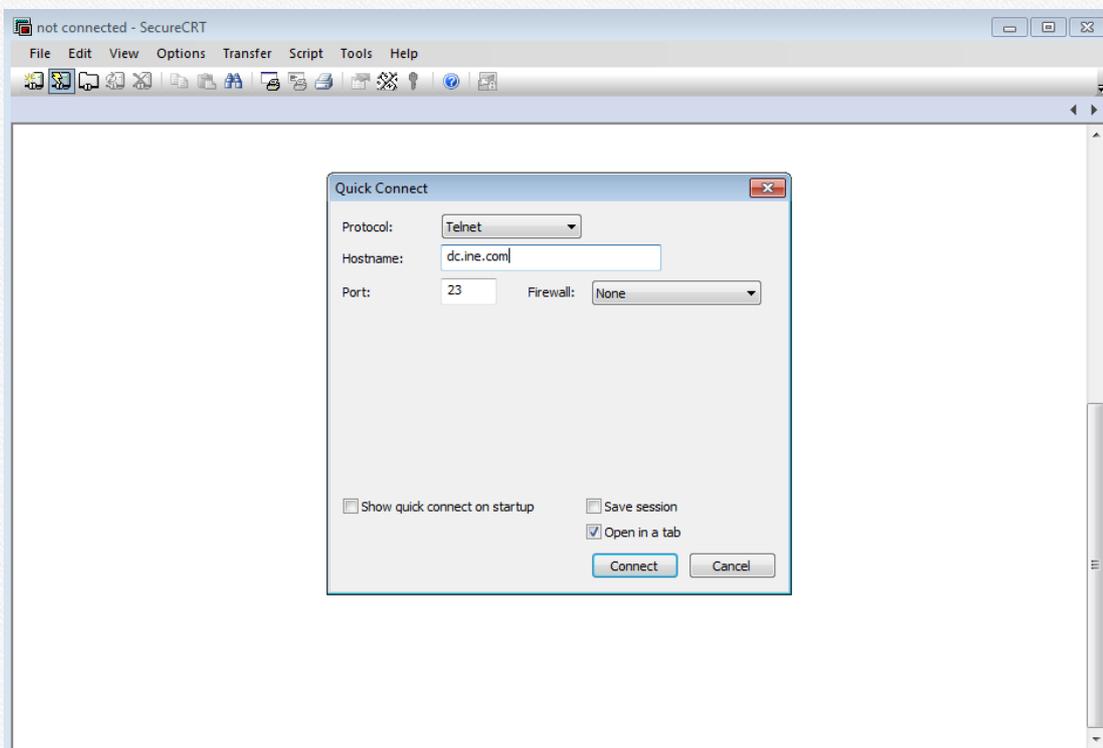
A confirmation message will appear.

Click **Confirm**. Another message states the number of tokens that have been returned to your account. Click **OK**. Your session will be cancelled and your tokens refunded.



Connecting to NX-OS Devices CLI

When your session begins, find your login information on the Rack Rentals page as shown above. Open your terminal software, such as PuTTY, SecureCRT, etc., and telnet to dc.ine.com. Log in with the provided username and password.



When you are logged in, a menu displays the devices that you have access to. The example shown below indicates that this session is assigned the Base 5K/7K rental, with both the UCS/SAN and N2K/SAN add-ons.

```

dc.ine.com - SecureCRT
File Edit View Options Transfer Script Tools Help
dc.ine.com
1.      N5K1
2.      N5K2
3.      N7K1
4.      N7K2
5.      Telnet to UCS FI Virtual IP
6.      Console to UCS FI-1
7.      Console to UCS FI-2
8.      MDS1
9.      MDS2
10.     MDS3
11.     MDS4
12.     3750G-2
13.     Clear console line to UCS-FI1
14.     Clear console line to UCS-FI2
Q.      Quit

```

Enter Selection:

Choose the device that you want to connect to, such as N7K1, and log in with the username **cisco** and password **cisco**. Note that the default ACE username/password is cisco/ciscocisco.

Enter Selection: 3

Trying N7K1 (192.168.0.71) ... Open

User Access Verification

login: cisco

Password:

Cisco Nexus Operating System (NX-OS) Software

TAC support: <http://www.cisco.com/tac>

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<http://www.opensource.org/licenses/gpl-2.0.php> and

<http://www.opensource.org/licenses/lgpl-2.1.php>

N7K1#

Note:

Certain commands, such as erasing and reloading the device or editing the management IP address, are purposely restricted to allow the automation system to function properly.

N7K1# config t

Enter configuration commands, one per line. End with CNTL/Z.

N7K1(config)# interface mgmt0

% Permission denied for the role

N7K1 (config) #

Using the Rack Control Panel

The Rack Control Panel allows you to reset devices to their default configurations and access the remote desktops of the virtual machines. To access the control panel during your active rack session, click **Rack Rentals** on the Members site, and then click the **Control Panel** link on the right under your current session.

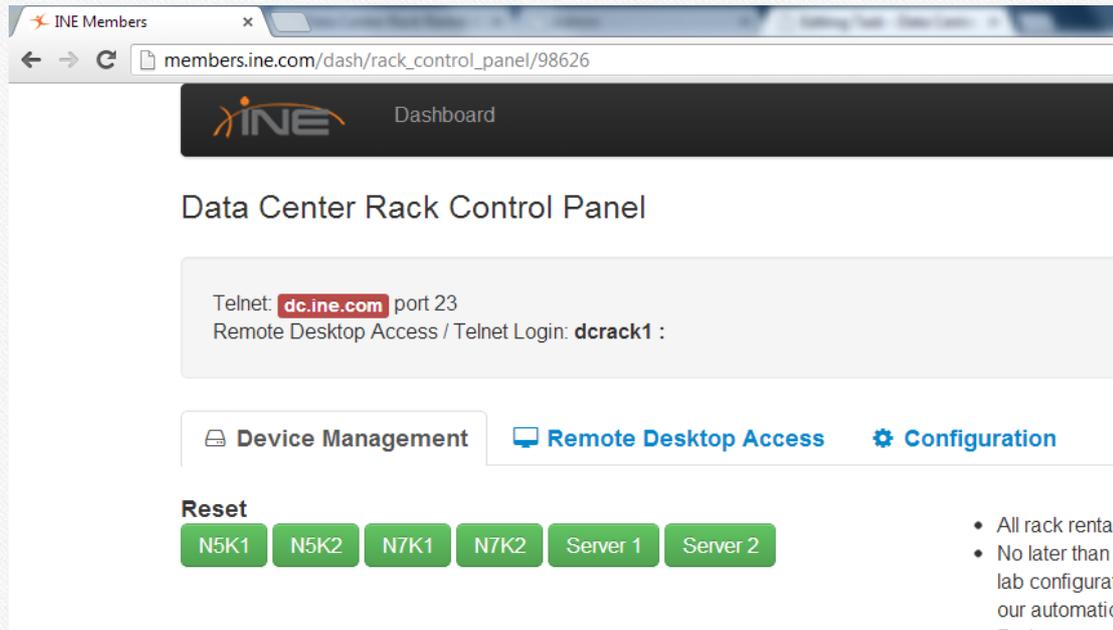
The screenshot shows the 'Rack Rentals' section of the INE Members website. It features a sidebar with navigation options and a main content area with a table of active sessions. The table has the following data:

Current Session(s)	Duration	Username / Password	Telnet Information	Action
1 Start Time: Tue, Apr 30, 2013 12:00 AM	4 weeks, 1 day, 9 hours, 20 minutes	dcrack1 - inedc	telnet dc.ine.com	Control Panel
End Time: Wed, May 29, 2013 11:30 PM				

Note:

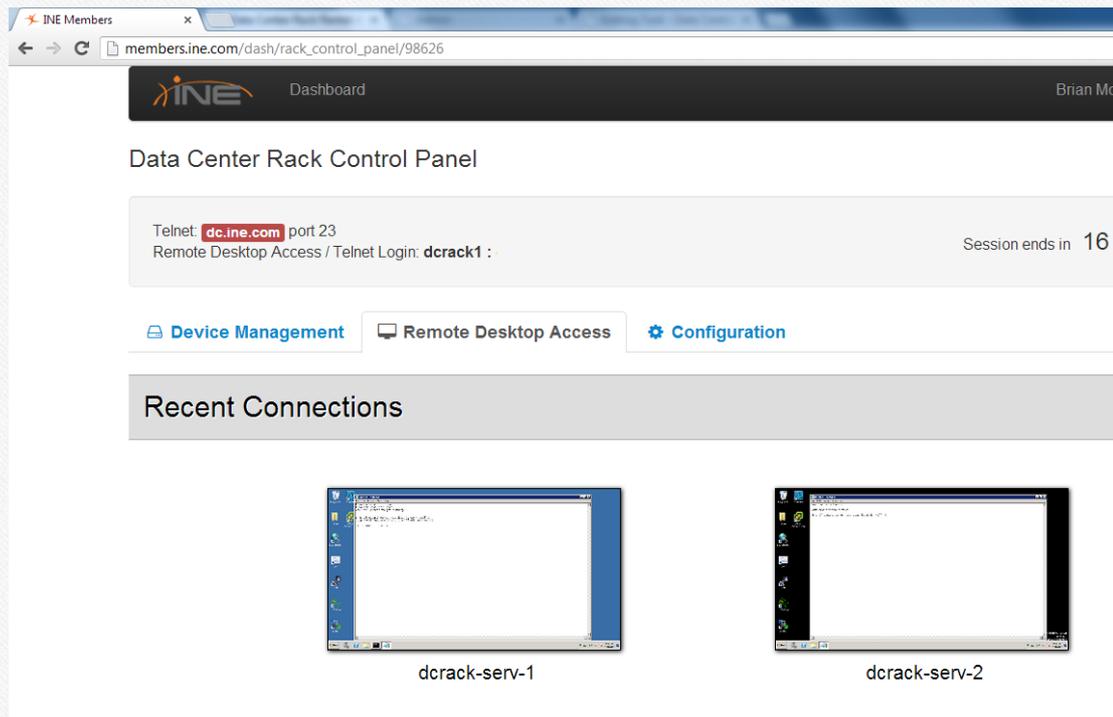
Connecting to Virtual Machines

Each rack session is assigned access to certain virtual machines, based on your rack number assignment and the add-ons that you chose. To access the virtual machines, first go to the Rack Control Panel on the members site.



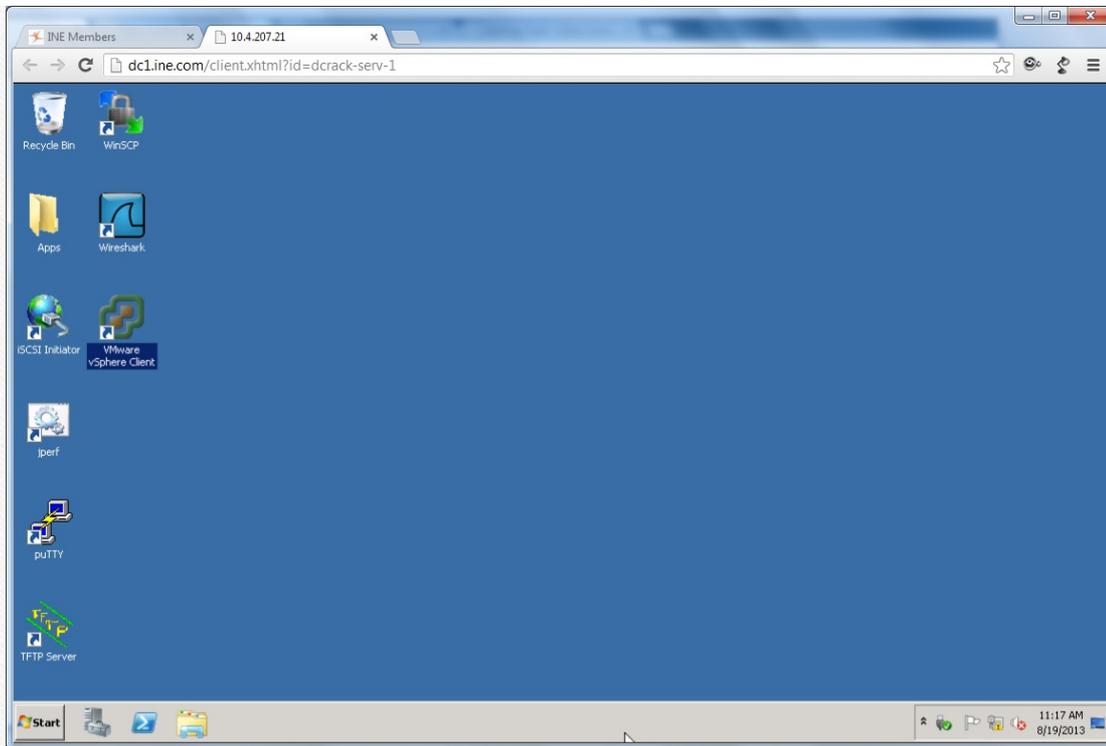
The screenshot shows the INE Data Center Rack Control Panel dashboard. At the top, there is a navigation bar with the INE logo and the word "Dashboard". Below this, the title "Data Center Rack Control Panel" is displayed. A central box contains connection information: "Telnet: **dc.ine.com** port 23" and "Remote Desktop Access / Telnet Login: **dcrack1**". Below this, there are three tabs: "Device Management", "Remote Desktop Access" (which is selected), and "Configuration". Under the "Remote Desktop Access" tab, there is a "Reset" section with six buttons: "N5K1", "N5K2", "N7K1", "N7K2", "Server 1", and "Server 2". To the right of these buttons, there is a list of items, partially visible: "All rack rental", "No later than 4", "lab configurati", and "our automatio".

Click the **Remote Desktop Access** tab and you will see a list of available virtual machines below. If this page asks you for a username and password, use your rack username and password, e.g. username **dcrack1**, password **abcdef**.



The screenshot shows the INE Data Center Rack Control Panel with the "Remote Desktop Access" tab selected. The connection information is the same as in the previous screenshot. A "Session ends in 16:" timer is visible. Below the tabs, there is a section titled "Recent Connections" which displays two virtual machine thumbnails. The first thumbnail is labeled "dcrack-serv-1" and the second is labeled "dcrack-serv-2". Both thumbnails show a Windows desktop environment with a command prompt window open.

Click the icon for the VM that you want to access, and the remote desktop will automatically open in another window. The remote desktop's resolution automatically resizes to your browser window size, so if you simply refresh this page the resolution will update to the browser size.



If for some reason you lock yourself out of a Virtual Machine, you can reset them from the control panel. All changes you made during your rack session will be reverted when you use this option.

Connecting to ACE Apache VMs and UCS Blade ESXi Instances

When it becomes necessary to connect to the Linux VMs running Apache when performing ACE-related tasks, follow the directions in the task to SSH to them.

The IP addresses for the ACE-related Apache VMs are:

- Apache1: **10.0.110.1**
- Apache2: **10.0.110.2**
- Apache3: **10.0.110.3**

The username and password for all ACE-related Apache VMs are **root** and **Cciedc01**.

When it becomes necessary to connect to the UCS blade ESXi (or Windows-BareMetal) instances, follow the directions in the task to connect to them, using the VMWare Infrastructure Client provided (preinstalled on any of the Windows VM desktops). The IP addresses for the UCS blade ESXi and Windows Win2k8R2 bare metal instances are:

- ESXi1: **10.0.115.11**
- ESXi2: **10.0.115.12**
- ESXi-VMFEX: **10.0.115.21**
- Win2k8-BM: **10.0.114.21**

The username and password for all ESXi instances are **root** and **cciedc01**.

The username and password for the Win2k8R2 instance is **Administrator** and **Cciedc01**.

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