

Getting Started Document

Follow all instructions in this "Getting Started" document, so you fully understand how to leverage everything that has been provided.

There are several documents provided as part of the support for this course, to help you be successful. Use each document as required. Documents are used in tandem, to complete setup and configuration of your local machine – and to ensure you have all information required to complete the course.

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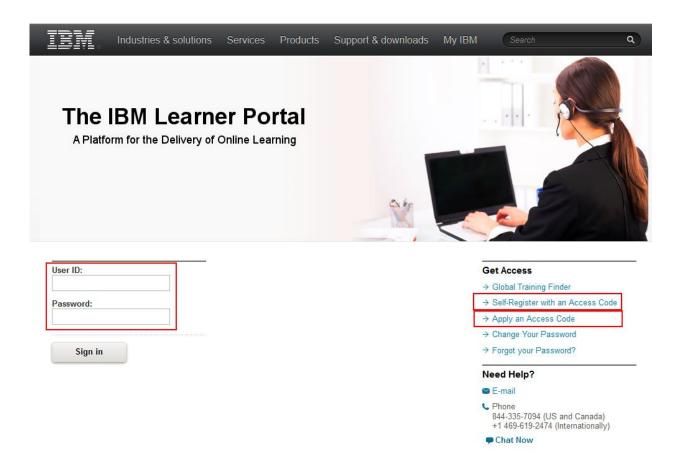
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How do I get started?

SPVCs "**S**elf-**P**aced **V**irtual **C**lasses" are online web based courses that are designed for independent study, over a period of time that is much longer than the classroom course. This provides the user with time in their busy schedule to plan their learning, work around their day-to-day activities, and complete work as shorter tasks – all at their own pace and place.

- Access is not indefinite please take note of your Enrollment Date and Expiration Date of your course, to ensure you do not run out of time while completing your course.
- Enrollment begins as soon as you apply your Access Code.
- If you already have an Access Code, you can log into the Learner Portal. You need an account to access the Learner Portal, so if you do not have one already, you will need to create one by following the instructions in your enrollment confirmation letter.
- Apply (or Self-Register) with your Access Code, to log in and access the course you are taking...
- Once you are logged into the Learner Portal, you can access your course.

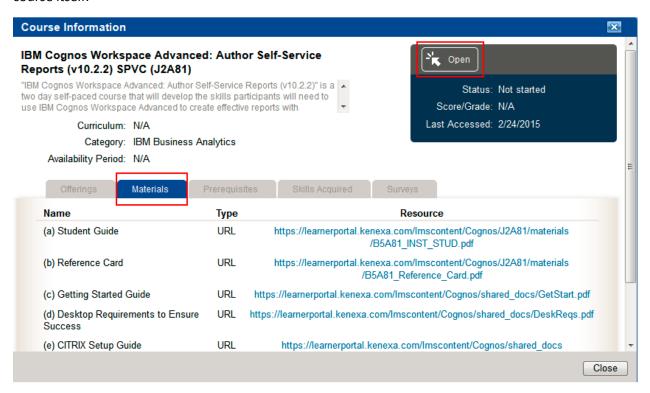




Parts of the course...

Once you are successfully enrolled in and accessing your course in the Learner Portal, review all provided materials (under the course Materials tab) to enable you to complete the course content and leverage the remote lab to practice what you are learning.

Click the Course to open the Course Information window. From there, you can access the course itself, as well as the 'Materials' tab of the course. Click the 'Open' button to access the main content of the course itself.





'Open' the course...

Once you 'Open' the main content, you have access to the same supporting information provided on the 'Materials' tab of the course. It is recommended you review the supporting information (via 'Test Link' and 'View Info') – if you have not done so already.

Leverage all course guides and/or reference materials provided (these are the theory, as well as step-by-step demos and workshops) and the remote lab (for hands-on practice), when taking your course. Launch the remote lab by clicking the 'Launch Lab' link provided.

Business Analytics Self-paced Virtual Classroom Online Training

New To Our Training?

For the best experience:

- 1. use a wired (not wireless) internet connection
- 2. be sure to test your environment; confirm you have the CITRIX plugin:

Test Link

3. close all other applications (running on your local computer) that are not part of your course

View Info

Book

. Supporting Docs & FAQ's:

Ready to Start Your Learning?

Open Course Guide:

Open Reference Card: Ref Card

Connect to your remote lab: Launch Lab - J2A81

Need Help?

"Sign in" Page Please contact our Helpdesk, using information provided on the "Sign in" page of Learner Portal.



Remote Lab Environment – the IRLP page...

When you provision your remote lab environment – by clicking the 'Launch Lab' link – you are taken to a new landing page hosted on IRLP VM platform with details of your remote lab instance. IBM migrated all self-paced remote labs to the IRLP VM environment in late 2015. As a result of this migration, the connection information embedded within the training content may not accurately reflect the procedures for connecting to your remote lab. One significant example of this is that a Citrix plugin is no longer required.

IRLP VM Overview

IRLP VM is a cloud computing platform that enables you to access and control your remote lab environment anywhere that has an Internet connection. These environments can be used for pretty much anything you'd use a traditional on-site computing network for, including development, testing, demos, and even production. Our focus is on flexibility and ease of use, so ideally you'll be able to manage your remote lab environments (virtual machines) with minimal outside assistance.

Virtual Machines (VMs) A VM runs a guest operating system as well as any installed applications. VMs have their own virtual hardware resources, including CPUs, RAM, file system storage, a CD/DVD drive, and network interfaces.

Accessing VM Desktops with Your Browser

IRLP VM's browser-based client is the quickest and easiest way to access and use your VM's desktop. You launch the browser client by clicking on the lab link embedded within the content. The IRLP VM environment automatically routes you to the correct lab environment. Once you open the VM's 'desktop', you can interact with the VM as if it were a local, physical machines

Access Requirements

To view a VM's desktop from the IRLP VM, you must meet the access requirements listed below.

You can use the Connectivity Checker tool to test whether you meet the minimum access requirements. For more information, see Using the Connectivity Checker.



Remote Lab Access Requirements

These are the access requirements to use the IRLP VM website and VM access clients.

Access Requirements for Viewing VM Desktops in Your Browser

To view VM desktops from the IRLP VM interface, you must meet the following additional requirements. If you cannot meet these requirements, use our Java applet to view your VM desktops in the browser.

Minimum Requirements for Viewing VM Desktops in the Browser

HTML5 Web Client

The HTML5 web client requires a modern web browser that supports WebSocket technology. Supported browsers include:

- Google Chrome 31+ (<u>download</u>)
- Microsoft Edge (Windows 10 only)
- Mozilla Firefox 31+ (download)
- Microsoft Internet Explorer 10+ (<u>download</u>)
 IRLP VM does not support Internet Explorer in Compatibility View. For more information about disabling Compatibility View, see http://windows.microsoft.com/en-us/internet-explorer/use-compatibility-view#ie=ie-11.

Internet Explorer 9 users must use the Java applet (see requirements below).

Software Requirements

• Apple Safari 7+ (download)

Java Applet

The Java applet requires the latest build of Oracle Java 1.7 or 1.8. For 32-bit Mac OS users, SmartClient requires Apple Java 1.6

- If you aren't sure which version of Java you have, click the following link and it will auto-detect your Java version: http://java.com/en/download/installed.jsp
- If you are running OS X, please see the additional information at <u>Running Java on Mac OS X</u>.
- For information about installing Java on your local Linux machine, see <u>Installing</u>
 Java on a Local Linux Machine.

Operating Systems

You can access IRLP VM from any OS that supports any of these browsers. This includes most versions of Microsoft Windows, Apple OS X, and most major Linux distributions.



	Minimum download speed of 1.16 Mb/sec (150 KB/sec) per client connection (per user).
Bandwidth	 For more information about bandwidth requirements for a group of users, see <u>Calculating the Required Bandwidth for a Group of SmartClient or HTML5 Client Users</u> below.
	To estimate the bandwidth of your connection, see <u>Testing Your Bandwidth and Latency Using the Speed Test</u> .
Latency	Latency of 150ms or less is strongly recommended. Latencies above 250ms may not provide acceptable performance.
	To access the IRLP VM web interface, you will need direct access to:
	 The HTTPS/SSL port (TCP/IP port 443) at cloud.skytap.com (76.191.118.28). Test access here.
IP Addresses and Port Ranges	The HTTPS/SSL port (TCP/IP port 443) at cloud.skytapstatic.com (76.191.118.23). Test access here .
	Contact your network administrator if you don't have access to these sites. Latency of 150ms or less is strongly recommended. Latencies about 250ms may not provide acceptable performance.
	To access the IRLP VM web interface, you will need direct access to:
	 The HTTPS/SSL port (TCP/IP port 443) at labs.edu.ihost.com . Test access here. The HTTPS/SSL port (TCP/IP port 443) at cloud.skytap.com (76.191.118.28). Test access here. The HTTPS/SSL port (TCP/IP port 443) at cloud.skytapstatic.com (76.191.118.23). Test access here.
	Contact your network administrator if you don't have access to these sites.



Opening the VM's Desktop in the Browser

You can open the VM's desktop by clicking on the thumbnail image of a running VM within the IRLP VM environment.



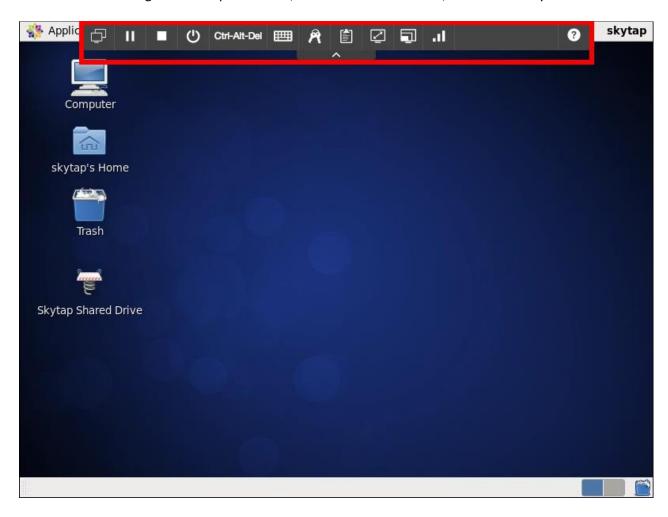
If you are using a supported browser, the VM's desktop will load in our HTML5-based web client. Supported browsers include: Google Chrome 31+, Mozilla Firefox 31+, Apple Safari 7+, Microsoft Internet Explorer 10+, and Microsoft Edge.

If you are using Internet Explorer 9 or another unsupported browser, the VM's desktop will load in Java applet.



Exploring the Browser Client Toolbar

When you click on the thumbnail image of a VM, the VM's desktop will open in your browser. From here, you can interact with your VM as if were a local machine. You can also use the toolbar at the top of the screen to change the VM's power state, access saved credentials, and customize your VM session.

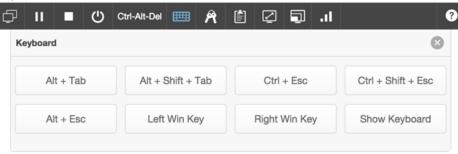


The toolbar at the top of the screen includes the following features, listed in order from left to right:

Button	Description
₽	Displays a drop-down list of all the VMs in an environment.
II U	Changes your VM's runstate. For more information power options, see Running and Stopping VMs.
Ctrl-Alt-Del	Enters the Ctrl+Alt+Delete keyboard combination on the VM.



Launches an on-screen keyboard that can be used to send common keyboard shortcuts to the VM. To type keyboard shortcuts directly from the host keyboard.





Opens the credential manager, which displays credentials from the VM's Credentials page.



Allows you to copy and paste text between your local machine and the VM.



Changes the VM's screen resolution to fit the current browser window size. The maximum screen resolution size is 1920 x 1080.



Provides several additional options for changing the VM's screen resolution.

Displays the quality of your browser's connection to the VM and provides several options for changing the display quality. If the connection is fair or poor, you can reduce the display quality to improve performance. Lowering the display quality will reduce the amount of bandwidth that your session requires. The browser client now takes advantage of Google Chrome's built-in WebP image format to reduce bandwidth requirements. Try using Chrome for better network performance.



Notes

- Changing the display settings will not change your Good, Fair, or Poor rating. However, you should see better performance as you use the VM.
- If you are experiencing connection issues due to high latency, the
 display quality settings will not improve performance. To get more
 detailed information about your connection, see <u>Testing Your</u>
 Bandwidth and Latency Using the Speed Test.



Opens a help link defined by the environment owner.

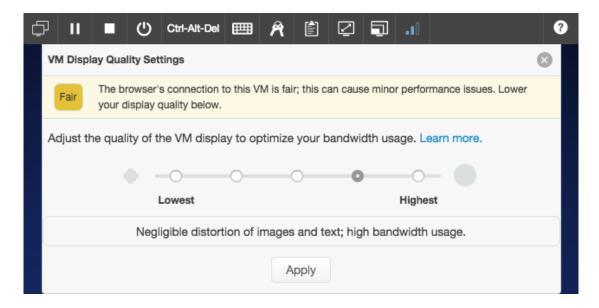


Collapses or displays the toolbar.



Improving Network Performance During a Desktop Session

By adjusting the display quality during a desktop session, you can adjust how much bandwidth your connection will consume. To adjust the display, click the Settings icon in the toolbar and select a new display quality.



Generally:

- A higher quality display will look clearer, but it requires more bandwidth to transmit over the network. By default, your VM will use the **high** image quality setting.
- A lower quality display will be compressed, which can cause noticeable distortion within images and around text. Although the image quality is diminished, the connection will consume less bandwidth and may provide better network performance.

Lower quality display options are especially useful for customers with fair or poor network connections or customers that hold multiple sessions on the same network at the same time.



Known Issues with VM Desktop Sessions

- If the client loses its connection, IRLP VM will automatically try to reconnect the client for you. Connection issues may be caused when:
 - o The browser first loads in single-VM view.
 - o The VM power state changes (e.g., the VM is run, suspended, shut down, etc.)

If the automatic reconnection attempt does not work, you can manually refresh the browser or close the browser window and restart the session.

- If a VM is accessed by multiple clients at the same time, certain keys may become unresponsive. As a workaround, close all of the browser sessions and restart the VM.
- The Caps Lock and Num Lock keys on the VM may get out of sync with the Caps Lock and Num Lock Keys on your physical keyboard. For example, the Caps Lock key may be toggled on in the VM, while it is toggled off on your physical keyboard. This would cause the Caps Lock key to appear stuck when you are typing in the VM. To re-synchronize the keys, you can click the Caps Lock or Num Lock key on the VM's on-screen keyboard; alternately, you can press the keys on your physical keyboard while the screen is focused outside of the web client (e.g., on another window or tab).

By separating the physical key on/off states from the VM's key on/off states, it prevents the client from rapidly toggling the Caps Lock or Num Lock keys on and off when multiple users are using the VM at the same.

- The Num Lock key does not work in Firefox 38 browsers; this will be fixed in an upcoming release.
- The double quote (") and tilde (~) characters may not work on Ubuntu 14.04 VMs; to fix this issue, you will need to adjust the VM's keyboard settings from within the guest OS. For more information, see <u>Troubleshooting Broken Keys on an Ubuntu 14.04 VM</u>.



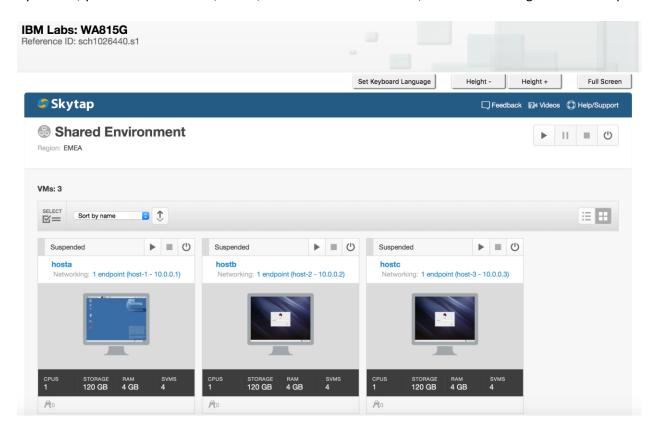
Viewing All VMs in the Browser

Opening the All VMs View

To access a high-level overview of the environment, you can:

- Open one or more VMs through a the IBM Learner Portal class
- Click the **All VMs** button on the toolbar if you are viewing the VM's desktop

By default, you will see the name, status, and hardware of each VM, as well as an image of its desktop.



If you have a large number of VMs, you might want to try the **Index** view using the button in the upper-right hand corner. **Index** displays the same information, but without the images.



Viewing and Managing VMs

From the All VMs view, you can manage, view, and access your VMs:

- Use the environment-wide Run, Suspend, and Power buttons to change the VM runstates. You
 can click the Power button to display additional power options. If you want to apply a power
 option to select VMs, use the Select options to select All or None of the VMs. Then select or
 deselect individual VMs by clicking the checkbox to the left of their name.
- Above the VM list, use the **Sort by** menu to sort your VMs by several different options. Note
 that **Status** sorts by a VM's operational state, first displaying **Running** VMs, then **Suspended**,
 then **Shut Down**, and finally **Powered Off**.
- Click on the image of a desktop to open the desktop in your browser (see <u>Exploring the Browser</u> Client Toolbar above).

Power Options

The power options are explained in the order they generally appear in:

- **Run** starts a suspended or powered off VM.
- **Suspend** "pauses" a running VM. The machine will stop running, but it won't be fully powered down. This enables you to resume operations from exactly where you left off with little to no start up time. Given these advantages, it's usually better to suspend a VM rather than use the shut down or power off commands.
- Shut down safely shuts down a running VM.
- **Reset** power offs and then powers on a running VM; it will also keep any resources (e.g., ISOs) mounted. Reset cannot be applied at the environment level.
- Power off "pulls the plug" on a running or suspended VM. This forces the VM to power off, without a graceful shut down.
 - Powering a VM off could cause data corruption; power off should only be used when your VMs are unresponsive.

Troubleshooting

For troubleshooting assistance, try our guided troubleshooting assistant at <u>Troubleshooting VM Access</u>.

Switching Between the HTML5-based Client and the Java Applet

If you are using an HTML5-supported browser and you want to switch between the HTML5-based web client and the Java applet, see <u>Switching Between the Browser Client and the Java Applet</u>.



Need Help - Learner Portal, Connections, Content?

Contact IBM Help Desk 1-844-335-7094 (for outside US & Canada, call +1 469-619-2474) or e-mail at: LPSupp@us.ibm.com

Be sure when providing content-related questions (ie. a question about topics covered, steps in a demo, etc...) that you include the following when escalating:

- your learning provider (who you purchased the course from)
- course code
- module you are working on
- demo/workshop # you are working on
- task #, step # and page # found in the book
- any screen capture(s) (if necessary) to provide context

Click the 'Chat Now' feature on the main login page of our Learner Portal (as shown below) which will provide you with instructions on how to self-register on SCCD (Smart Cloud Control Desk) in order to:

- **'Browse Solutions'** under SCCD Self Service center which will enable you to find Solutions and resolve problems on your own.
- **Submit a SR** 'service request' to Service Desk for further assistance.
- Initialize live chat with Help Desk agent for real time support.

