

Microsoft Labs Online

Microsoft Certified Trainer (MCT) Readiness Guide

Welcome to Microsoft Labs Online (MLO) powered by XtremeLabs LLC. This document provides step-by-step instructions on how to:

- Create an account.
- Use your virtual labs through the self-service portal.

MCTs are provided with access to MLO to support MCT Readiness. Access by an MCT through the MCT program is not for use in the classroom. If an MCT is delivering Microsoft Official Courseware (MOC) or Role-Based Instructor Led Training (m-ILT) with MLO, the Learning Partner will provide the MLO code.

Follow the steps for creating an account and accessing your labs in the [MCT Access to MLOs](#) section of this document.

If you are having connection issues, use the [Troubleshooting](#) section to configure your computer for access to your labs.

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System Requirements

To access the lab hosting system, your client system must meet the following requirements:

	ActiveX Requirements	HTML5 Requirements
Windows XP SP3 or later (Windows RT is not supported)	x	x
.NET Framework 3.5 or later	x	x
Browser	Internet Explorer 7+	Microsoft Edge Internet Explorer 10+ Google Chrome 39+ Safari 7+
Minimum KBps per user network bandwidth	128 KBps	256 KBps
Ideal screen resolution is above 1280 x 1024	x	x
Viewer Installation	Local Admin	N/A
TCP Port 80 and 443 open with inbound/outbound access to the Internet	x	x
For some corporate firewalls, a proxy client (such as Forefront TMG Client) may be required	x	N/A

MCT Access to MLOs

MCTs who have previously obtained an access code for MLO for MCT Readiness or have an existing MLO account, click [here](#).

MCTs who are registering for MLO for MCT Readiness for the first time, please perform the following steps to create an account and access your virtual labs.

Create a Microsoft Official Courseware (MOC) Labs Online Account

The first step to accessing your virtual labs will be to create an account.

1. In Internet Explorer, navigate to <http://moc.microsoftlabsonline.com>.

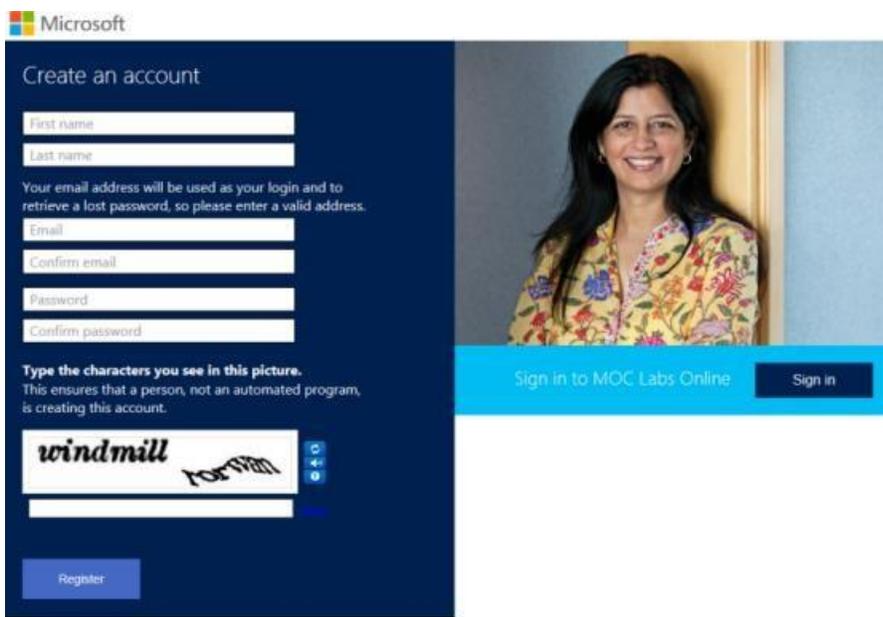


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2. If you have an account, you can log in. If you do not yet have an account, click **Register**.



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3. To create your account, fill in the fields on the **Create an account** page.

NOTE: The email address used to create your account is also used for password reminders. It is important to use a valid email address.

4. Click **Register**.
5. You will be redirected to the **My codes** page.

Validate Your MCT Credentials

1. To validate your MCT credentials, navigate to the MCT Readiness portal at <http://moc.microsoftlabsonline.com/mct/Access> to be directed to the **Microsoft Labs Online: MCT Readiness** page.
2. Sign in to your **MOC Labs Online** account.

3. On the MCT Readiness page, enter the **email address** that was used for your MCT application, and your **MC ID** to validate your MLO access.

[Privacy & Cookies](#) [Download User Guide](#) [FAQ](#)

4. Check the box to agree to the **Terms of use**.
5. Click **Register**.
6. You will be redirected to the **My codes** page.

Description	Current Status	Expiration Date	Code Used
MLO Access for MCT Readiness	Active	4/9/2015 12:00 AM	

7. Confirm that **MLO Access for MCT Readiness** displays under **Description** and that the **Current Status** is **Active**.

8. Select the **My labs** link to access all available MOC MLO courses.

Take a Lab

1. From any page, select an active course that is listed under the 'My labs' title (see above). Then select the lab module that you want to launch by hovering over the lab module's 'Lab Details' box

Lab Details

(which will turn dark gray) and clicking it. This will open the lab module's Description box:

[20697-1B] Module 01: Overview of Windows 10

Lab Duration: 120 minutes

Description: "Overview of Windows 10," describes the Windows 10 operating system. It describes the new features in Windows 10, and the important changes since Windows 8.1. It describes the use, navigation, and customization of the enhanced Windows 10 user interface. Additionally, Module 01 describes the Windows 10 features that make it beneficial for organizations of different sizes.

Close Take Lab

The duration and description of the subject lab module will be presented here.

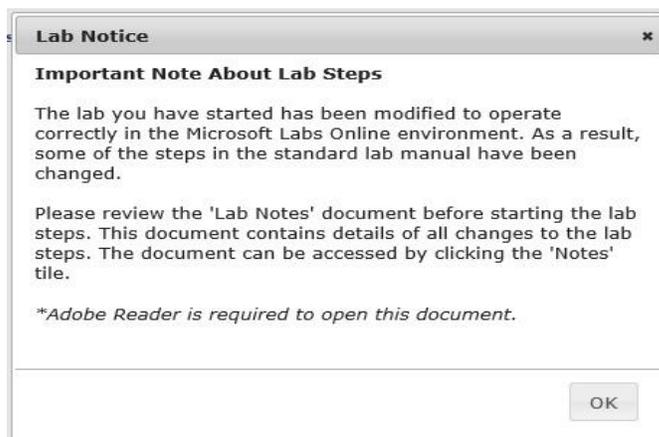
2. To launch the lab module, hover over and click on the 'Take Lab' button.

3. While your lab environment is being prepared, a “spinner” will be displayed. Typically, it takes fewer than 30 seconds to create your unique lab environment. A large lab environment might take up to 2 minutes.

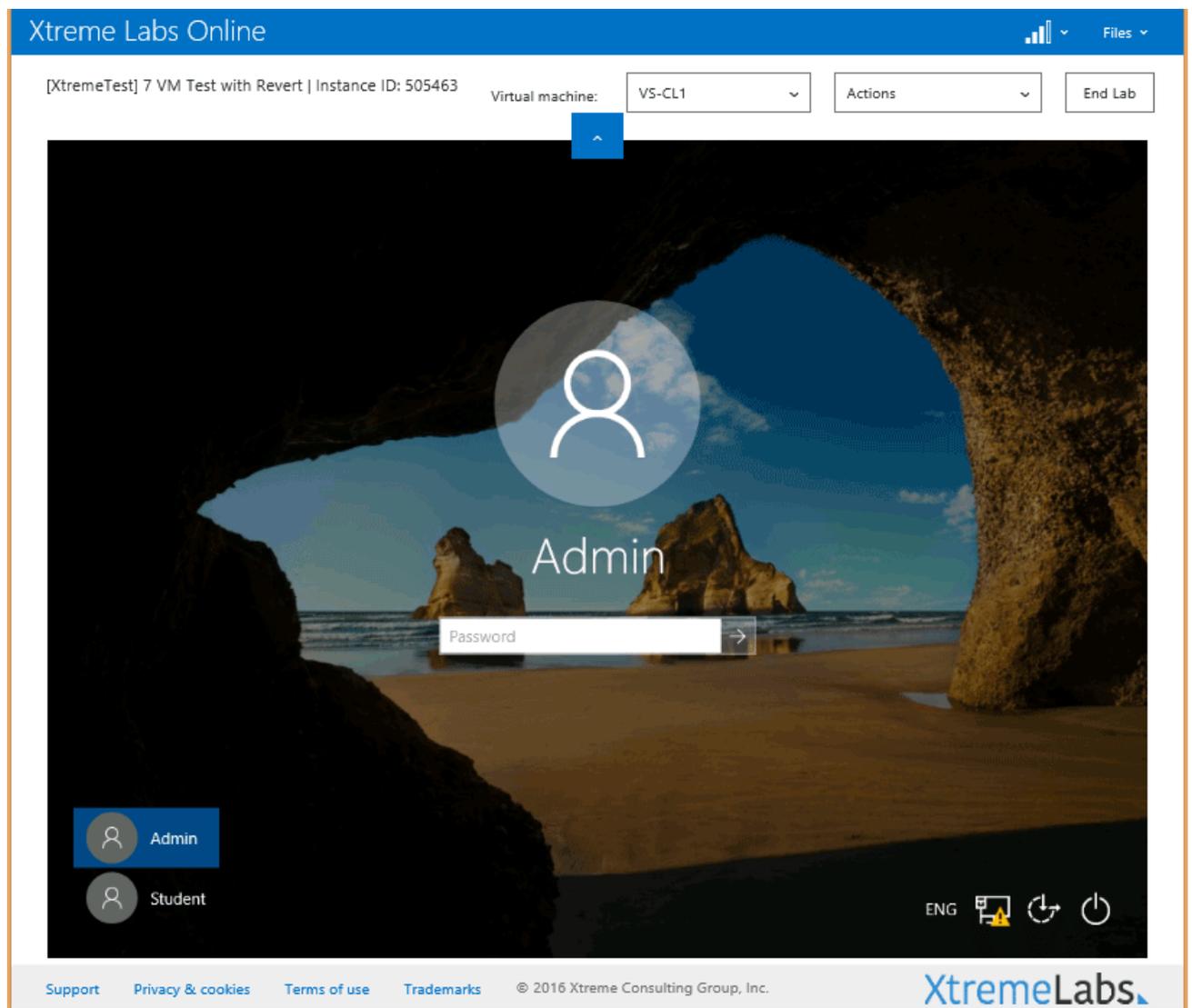


Note If your lab takes longer than five minutes to load, refresh your browser page by pressing the **F5** key. If you still cannot access your lab, please alert your instructor.

Note Some labs have been modified from the on-premises version to operate correctly in an online environment. If a lab has been altered, a “Lab Notice” message will appear after the lab loads. Clicking the **Notes** tile will launch a Lab Notes document that contains additional information regarding the changes made to the lab steps.



4. Once the lab loads and the environment is ready, your lab view will be displayed.

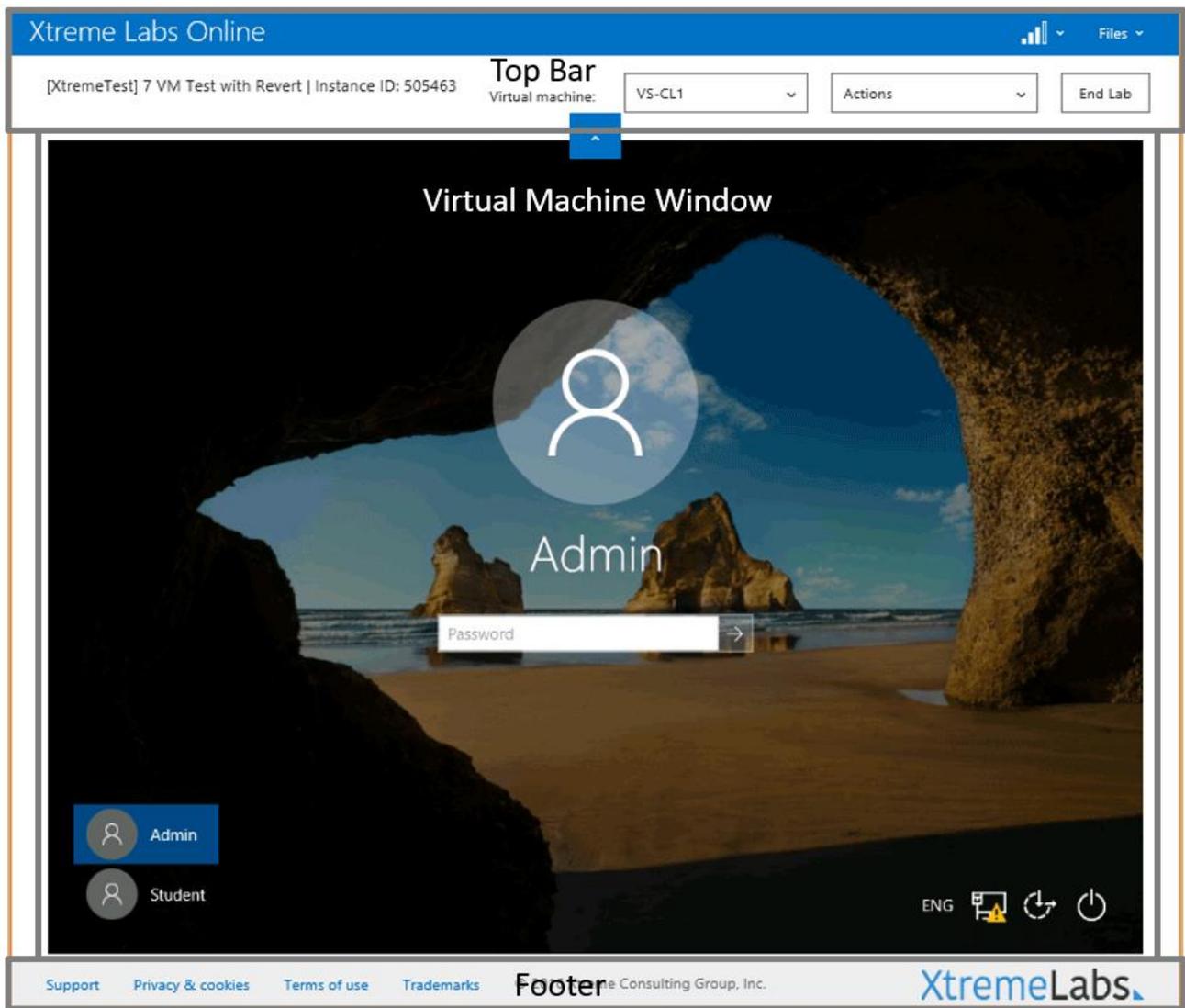


How to Navigate the Lab Environment

Once your lab view is displayed, a number of options are available to allow you to interact with the virtual machines provided for each lab scenario.

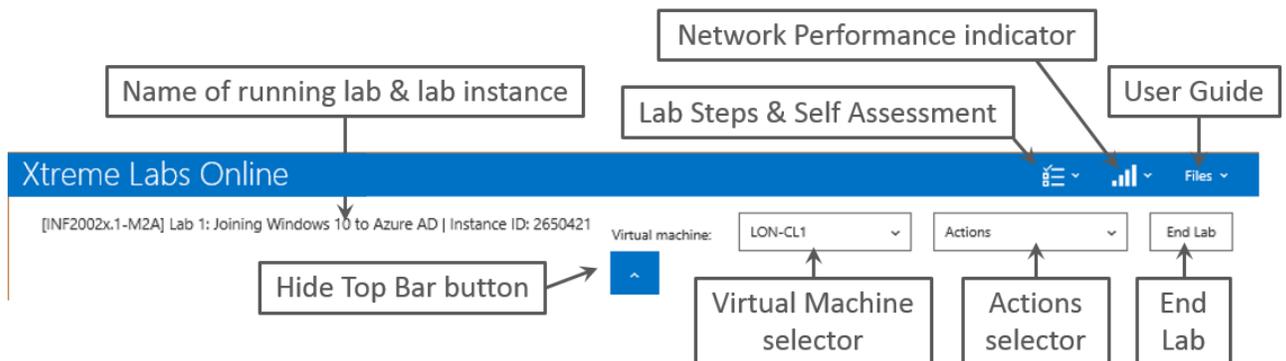
The lab view page has three parts:

- Top bar
- Virtual machine window
- Footer



Top Bar

The elements in the top bar are called out and described here:



Name of running lab & lab instance – This displays the name of the open lab module along with the instance of this lab. If requesting support, this information will be important.

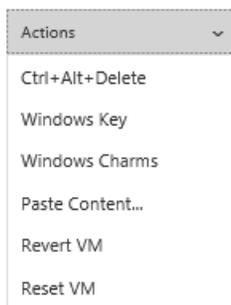
Hide Top Bar button – Click this button to hide or reveal the top bar.



Virtual Machine selector – This is a drop-down list that displays all of the virtual machines in the running lab module. Click a specific virtual machine to open it in the virtual machine window. The name of the virtual machine currently in the virtual machine window is listed in the text box.



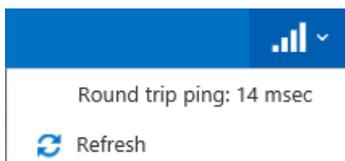
Actions selector – This is a drop-down menu that displays the special actions you may need to perform in the virtual machine that would normally be performed by the client machine's operating system.



The action choices are:

- **Ctrl+Alt+Delete** – Sends this command to the virtual machine.
- **Windows Key** – Replicates the Windows logo key in the virtual machine.
- **Windows Charms** – Opens the charms within the virtual machine (if the virtual machine's operating system includes charms).
- **Paste Content** – Inserts the content of the client machine's clipboard into the virtual machine.
- **Revert VM** – Reverts the VM to its original state. Should be used only when the lab steps direct you to revert the VM.
- **Reset VM** – Resets the VM. Should be used only when the lab steps direct you to reset the VM.

Network performance indicator – The bars in this indicator show the response speed between the user's browser and the virtual machine server. The fuller the bars, the better the network performance. A drop-down arrow displays the last ping's round-trip in milliseconds and includes a Refresh text link that initiates a new ping. The round-trip timing of the new ping is then displayed in the drop-down box and is shown in the indicator.

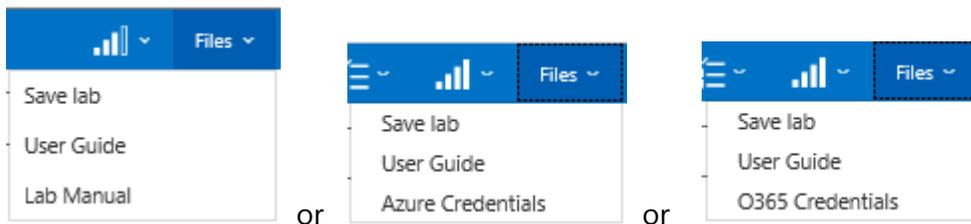


Lab Steps and Self-Assessment – If the lab module being viewed includes a lab steps overlay or a self-assessment test, this icon will appear in the top bar. Clicking on the lab steps icon will open a drop-down that indicates whether the lab module has either a lab steps overlay or self-assessment test (which includes a lab steps overlay). If the lab steps overlay is closed, clicking on the 'Lab Steps' or 'Self Assessment' text will open the lab steps overlay.

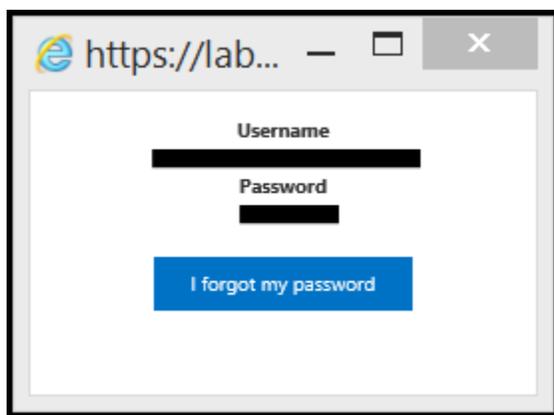


Note that if there is a lab steps overlay in the lab module, the overlay will open by default when the lab module is launched.

Files – The **Files** drop-down menu displays up to five different links.



- **Save lab** – See the **Save lab** section below.
- **User Guide** – Clicking on the **User Guide** link opens a separate window where the XtremeLabs Student User Guide (this document) can be displayed and downloaded from within XtremeLabs.
- **Lab Manual** – When the launched lab includes a downloadable lab manual, this link will appear. Clicking on the **Lab Manual** link enables the downloading of the subject lab manual.
- **Azure Credentials** – When the launched lab is to be run in an Azure Resource Group, this link will appear. Clicking on the **Azure Credentials** link will open a pop-up window that displays the Username and Password that you will need to sign-in to the Azure Resource Group (ARG) that has been created for your instance of this lab:

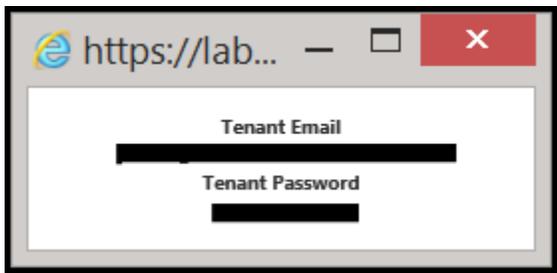


XtremeLabs assigns these credentials to you for the duration of your lab session. When you end your lab session, your ARG will be torn down and deleted.

Note: Any work that you have performed in your ARG during your lab session will then be lost when you click **End Lab**. It is recommended that you use the **Save Lab** feature.

This pop-up also enables you to change your password. Click on the **I forgot my password** button.

- **O365 Credentials** – When the launched lab includes an Office 365 Tenant, this link will appear. Clicking on the **O365 Credentials** link will open a pop-up window that displays the Tenant’s Email and Password that you will need to use this O365 Tenant that has been assigned to you for use in this lab:

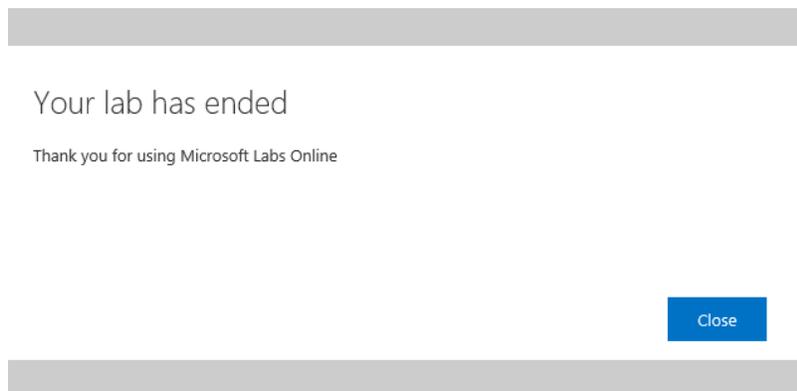


This O365 Tenant will expire in no less than 45 days from the date it is assigned to you.

End Lab – Click **End Lab** to close the lab and terminate the virtual machines in the lab module.



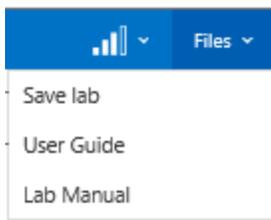
You will be prompted to confirm that you want the lab to end. Clicking on the **OK** button will end the lab.



Click **Close** to close the lab’s browser tab and return to the course player.

Save Lab

If you want to save your work and complete a lab at a later time, open the **Files** drop-down menu on the top bar of the screen and click **Save lab**. This will save your progress and your work will be stored for up to eight days (192 hours).



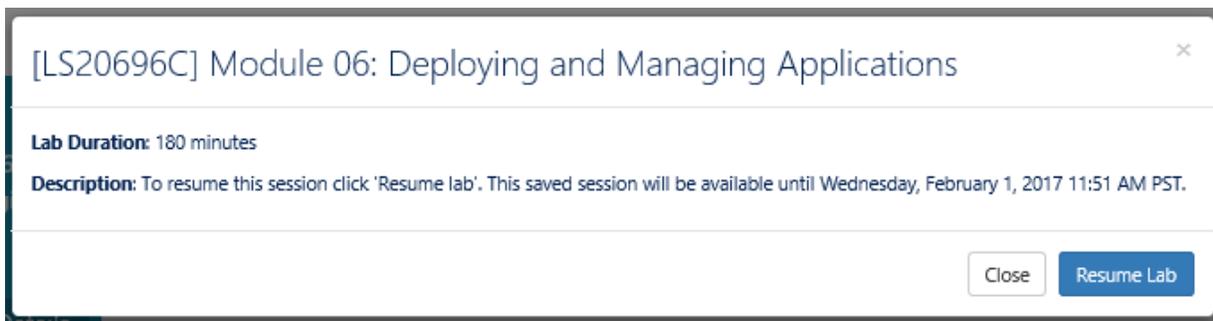
Note: The **Save lab** function is not available on some labs. The Save lab link will only appear in the **Files** drop-down menu if this feature is available for your launched lab module.

Saving the lab will take you to the **My saved labs** page where a tile of your saved lab is displayed.

My saved labs

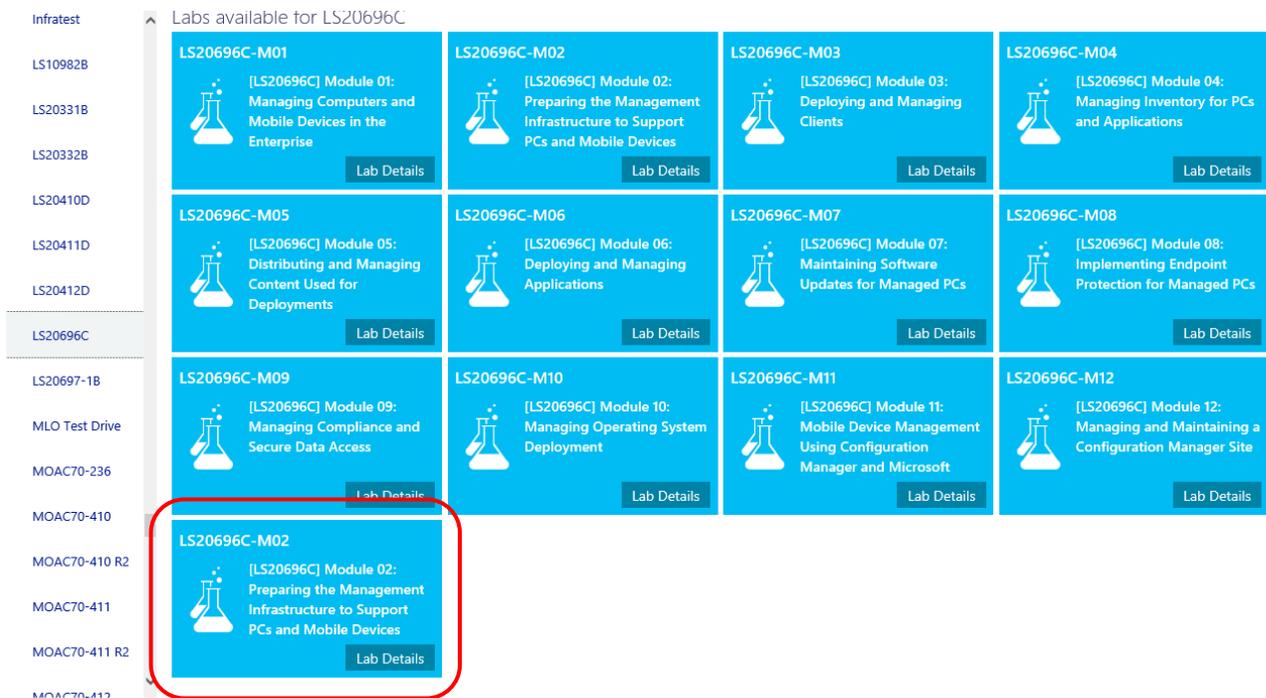


During the saving process, the Lab Details pop-up will state that *"Your session is currently being saved. Please refresh the page in a few minutes to resume your lab."* Once the save has been completed, the Lab Details pop-up will state the date and time that your saved lab will be available until.



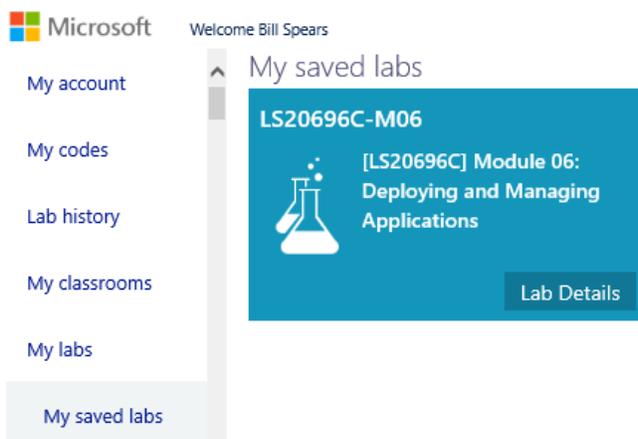
You can resume the lab at any time until then. After that stated date your saved lab will be deleted.

You can resume the lab either from the **My saved labs** page or from the course's page. Saved labs will have their own tile in the appropriate course's page and this tile will be displayed in the last position.



When you click the **Resume Lab** button in the Lab Details pop-up, the lab will restart at the place where you left off.

If you have saved a lab and sign out of <http://labs.xtremelabs.io> and then sign back in to the site within the save timeline, the My saved labs section will be opened by default to remind you that you have a saved lab waiting for you:



Note: Only one lab can be saved at a time. If you already have a saved lab and you then save another, it will overwrite the first saved lab.

Virtual Machine Window

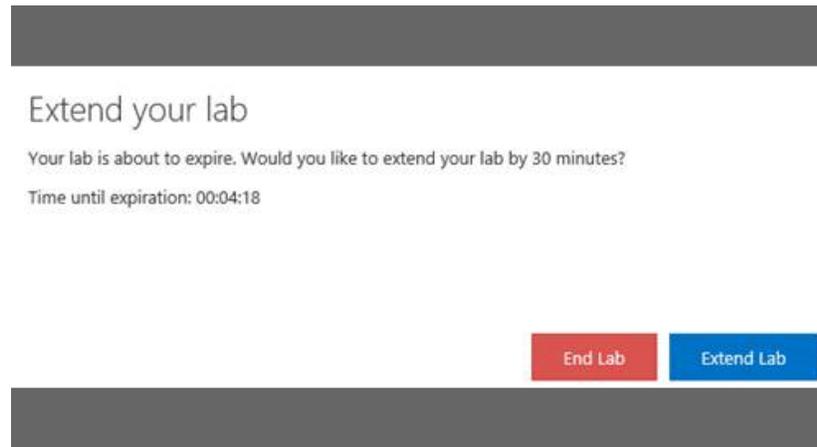
This is the large window that fills most of the lab view. This window allows interaction with the virtual machines that form the virtual labs.

Only one virtual machine can be active in this window at a time. Use the virtual machine selector (identified earlier in this guide) to switch between virtual machines in a lab module.

As long as the focus is within this window, the keyboard and pointing device will control the virtual machine.

NOTE: Instructions for logging into and interacting with the VMs should be in the lab manual documentation. However, the most commonly used Administrator passwords used for Lab VMs are **Pa\$\$w0rd** and **Pa55w.rd**.

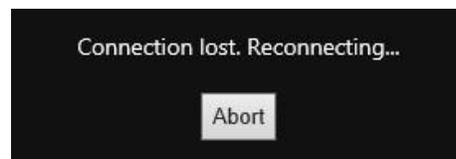
Once launched, labs will run for 90, 120, 180, or 240 minutes or more, depending upon the scope of the lab and the steps to be performed. At the end of this period the lab will be disconnected and a message will be displayed. This message informs you that the lab is about to expire and it gives you an opportunity to either end the lab or extend the lab for an additional 30 minutes:



When this message is displayed, you will have 5 minutes to click on the **Extend Lab** button before the lab is automatically ended.

You can end the lab at any time while this message is displayed by clicking on the **End Lab** button.

NOTE: The RDP (Remote Desktop Protocol) connection between the client machine and the virtual machine may be interrupted occasionally due to networking events, but the connection will be automatically restored. If the connection is lost, the screen will turn dark and a "Connection lost. Reconnecting..." pop-up message will appear.



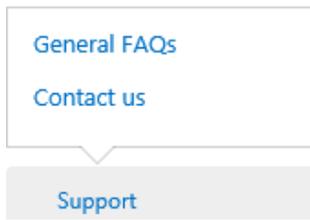
The desktop session will resume upon reconnection.

Footer



There are three elements in the Footer: the **Support** link, the **Privacy & Cookies** link, and the **XtremeLabs** link.

Support - Click **Support** to open a menu with two text links: General FAQs and Contact us.



Click **General FAQs** to view a .pdf file of the Frequently Asked Questions.

Click **Contact us** to open a pop-up form for sending email to the XtremeLabs support team. This form also provides the toll-free number to contact the XtremeLabs support team and a Chat now button to initiate a chat session with a team member.

Contact us

What is the problem you're having?

* Subject

* Step-by-step details

How may we contact you?

* Email address

Phone number

Share this message with:

Cancel

Submit

Microsoft Labs Online Support

xlabsupport@xtremeconsulting.com

(800)-239-7051

Hours

Monday-Friday 12:00 AM – 6:00 PM PST

Observed Holidays

- 1/2/2017 - New Year's Day
- 5/29/2017 - U.S. Memorial Day
- 7/4/2017 - U.S. Independence Day
- 9/4/2017 - U.S. Labor Day
- 11/23/2017 – 11/24/2017 - U.S. Thanksgiving Holiday
- 12/25/2017 – 12/26/2017 - U.S. Christmas Holiday

Chat now

To send email to the XtremeLabs support team, fill in the text input boxes with the appropriate information and click **Submit**. Note that the text input boxes denoted with a red asterisk (*) cannot be left blank.

After you click Submit, you will see an acknowledgment that the email has been sent. The XtremeLabs support team will contact you shortly.

If an issue is urgent, call the XtremeLabs support team using the toll-free number provided on the form or click **Chat now** during the listed support hours. (The listed support hours are in the Pacific Time zone.)

Privacy & Cookies – This links to the Microsoft Privacy Statement web page.

XtremeLabs – This links to the home page of XtremeLabs LLC, a division of DISYS, the fine people who bring you XtremeLabs – and much more.

Connectivity Preference

By default, all connections to lab virtual machines are made via an installed ActiveX control. If you are using IE10+ and prefer to use HTML5 as your connection method, you may change your RDP preference on the **My account** page.

Update your RDP preferences

Click below to set your RDP preferences. Please note that the HTML5 connection method is only available on Internet Explorer 10+. Additionally, some classroom functionality is not available via the ActiveX control connection method.

- Use the **ActiveX** RDP control connection method. *(Internet Explorer 7+ required)*
- Use the **HTML5** connection method. *(Internet Explorer 10+ required)*

Update Preferences

Note: If you select HTML5 as your preference, but the machine on which you have logged in does not support it (i.e. the browser version is too low), then the UI will revert to ActiveX automatically.

Troubleshooting

If you have any issues connecting to the lab images once they have launched, the following may help identify the issue.

Advanced Firewall Configuration

The lab hosting system offers connections to Lab Virtual Machine (VM) console sessions from an end user's web browser via an ActiveX control embedded in the web page. That ActiveX control makes one or more connections to a Hyper-V server in order to display the VM console windows within the browser window.

All ActiveX controls make their network connections outside of the scope of IE. In other words, their traffic is not managed through the IE proxy settings. Changing proxy settings on the browser will not enable the traffic. Instead, all ActiveX controls open network ports directly through the Windows TCP/IP protocol stack. This is generally seen as a key benefit of the ActiveX architecture.

The network traffic between the ActiveX control and the lab portal is running over TCP port 443. That port is typically used to transfer https traffic. However, in this case, the network protocol being transferred over port 443 is RDP (Remote Desktop Protocol). In most cases, proxy/firewall configurations are not sensitive to the protocol being transmitted over the port and this traffic flows without a problem. However, in more secure environments (and this may include your network boundary), packet inspection of traffic over port 443 may block the RDP traffic since it does not conform to the https protocol.

To enable the lab session traffic from the ActiveX control to reach the Internet via a proxy server (such as Microsoft's Forefront TMG for example), two configuration steps may be necessary:

Internet Proxy/Firewall Client

First, it is necessary to install a client proxy agent on the end user's machine and then configure that client to connect to the Internet via the proxy/firewall server. If your network is protected by TMG for example, you will need to install the Forefront TMG client on your machine and configure it to connect to the Internet via the gateway. The TMG client can be downloaded >>[here](#)<<. Other firewall/proxy products typically have an equivalent client agent.

Firewall Configuration

If the firewall has been configured for packet inspection (i.e. the rules are sensitive to the protocols running over certain ports), then the outbound rules on the firewall need to be altered to allow the RDP protocol to run over port 443 to the specific addresses used by the lab portal. Namely:

Destination IP address ranges:

67.21.174.1 through 67.21.174.25
67.21.175.69 through 67.21.175.88
67.21.173.141 through 67.21.173.150

Destination port:

TCP 443

Protocol:

RDP

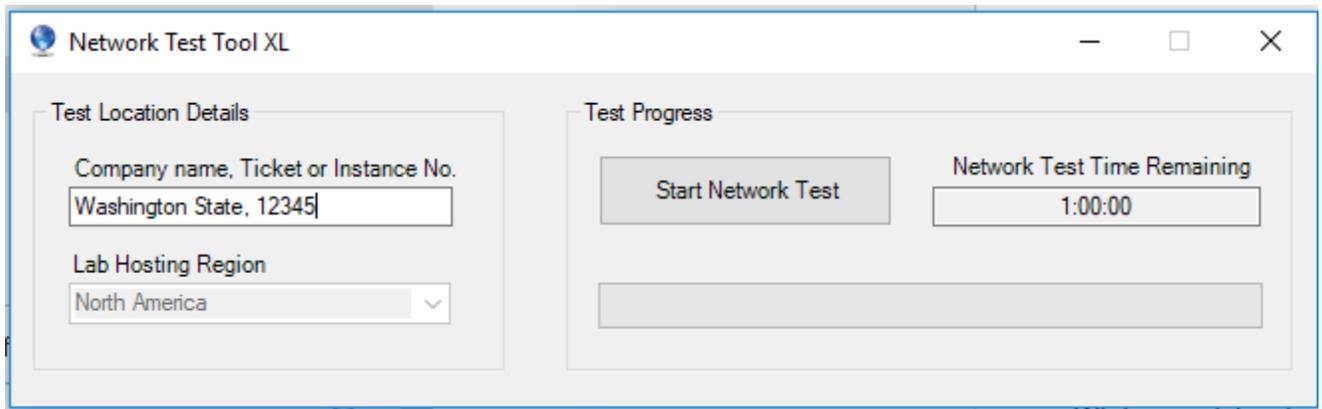
NOTE: Configuration of access to port 443 for RDP traffic is beyond the scope of IE proxy settings.

Checking Connectivity

If you have trouble accessing your labs, use the NetTest tool to check your connectivity and then provide the results to the XtremeLabs Support team for analysis. The tool is available at <http://xvnettest.westus.cloudapp.azure.com/NetTestXL.exe>.

After installing the tool on the computer used to access XtremeLabs, launch it with elevated rights as Administrator.

As soon as it launches, enter your name, ticket number, or active lab instance ID number and select 'Start Network Test'.



After collecting some general information, the tool will run for 1 hour gathering network data. Once the test is complete, the 'Test Progress' section will change to read 'All Tests now complete' and a folder will open with 2 files. Copy these files and send them to the support team as attachments.

Name	Date modified	Type	Size
 NetTest.txt	6/15/2018 1:58 AM	Text Document	12 KB
 NetTestRTT.txt	6/15/2018 1:58 AM	Text Document	1 KB

Note This tool is focused on issues around using the RDP ActiveX control for session connectivity (although it also measures general network settings/connectivity). It checks the ActiveX installation and the RDP CredSSP settings, as well as firewall checks specific to running RDP through the firewall.

If there are any issues with running the RDP ActiveX control, the simplest solution may be to switch your user profile to use the HTML5 viewer. HTML5 is a per-user choice (not per machine) and currently defaults to ActiveX. The [Connectivity Preference](#) section in this document describes how to switch to HTML5.

Support

If you have technical issues with the online labs, you can contact the XtremeLabs support team.

Examples of technical issues include:

- The virtual desktop does not display.
- The online lab runs slowly or is non-responsive.

If an issue is urgent, call the XtremeLabs support team using the toll-free number provided on the form or click the link to initiate a chat session with a team member during the listed support hours. (The support hours are in the Pacific Time Zone.)

XtremeLabs - Support Contacts	
Phone	(1) 800-239-7051
Email	support@xtremelabs.io
Hours	Mon-Fri: 12:00 am to 6:00 pm (Pacific Time)