

# **FACILITY REQUIREMENTS GUIDE VMware Virtual Data Center (VDC/vClass) Cloud Lab Environment**

## **Revision 18 – Feb 24th, 2017**

This document identifies the classroom, equipment, and networking requirements necessary to Successfully deliver a VMware Education class using VMware's Virtual Data Center (VDC) Environment.

### **CLASSROOM REQUIREMENTS**

#### **Classroom Environment**

The classroom must have:

- Ethernet network and IP address for instructor's laptop computer
- World Wide Web access for students and instructor on TCP/IP ports 80 and 443
- Projection system for instructor's laptop computer with a 1280X768 minimum resolution.

For the best student experience, a minimum resolution of 1440X900 is highly recommended.

- Whiteboards with markers and erasers

#### **Student Desktop Computers**

Each student workstation must have a Pentium-class laptop or desktop machine with 100 Mbps Or 1 Gbps hardwired Ethernet connection to a classroom LAN, 256MB or more of free disk Space, and 1280X768 as the minimum screen resolution. For the best student experience, a Screen resolution of 1440X900 or higher is highly recommended.

Because of differences in the reliability and performance characteristics in WiFi networks and How they work with remote desktop sessions, WIRELESS NETWORKS ARE NOT SUPPORTED and are highly discouraged!

Each student workstation must be configured with either one 23" monitor or two 17" monitors (One of which may be a slave monitor). This is required as VMware will deliver the Lecture and Lab Guides for courses in an eBook format and not as physical printed materials. Alternatively, Each student may be allowed to use a personal workstations or tablets (iPads or Android OS) as Needed to replace a 2nd monitor to ensure a positive user experience. Tablet devices ARE NOT to be used as the primary remote desktop access device!

Microsoft Windows XP SP3, Windows Vista or Windows 7.x, 8.x or 10.x and Mac OS (**All Student machines must have the same operating system**).

#### **Performance Requirements**

To maintain acceptable performance throughout the class, the facility must ensure that each:

Classroom network has a minimum 40 Kbps of bandwidth to the Internet per student.

Student desktop PCs **MUST NOT** be on a production network!

## **NETWORK REQUIREMENTS**

### **Outbound Port Access**

**Students access remote server kits located at VMware's Virtual Data Center (VDC)**

**To deliver a VMware Education Services class. In order to access the VDC, the Classroom network must allow outbound access to the following port:**

**TCP port 3389 for Windows Desktop Assistant access using the RDP protocol**

### **Remote Server Addresses**

**VMware Education Services request that all connections are opened to all Possible remote servers. That way, students can connect to an alternate VMware Server if the assigned server should become unavailable during class. The Destination subnets that belong exclusively to VMware systems are as follows:**

**207.189.189.0 thru 207.189.189.254**

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## **NETWORK CONNECTIVITY TEST**

**Each facility must verify that their classroom network connects properly to the VDC at least five**

**(5) Business days prior to the class start date.**

### **Test Connectivity to VDC using Windows Remote Desktop Connection**

**Follow the steps below to test connectivity with a remote server in the VDC for Each address range:**

**To test 207.189.189.0/24 and 207.189.190.0/24**

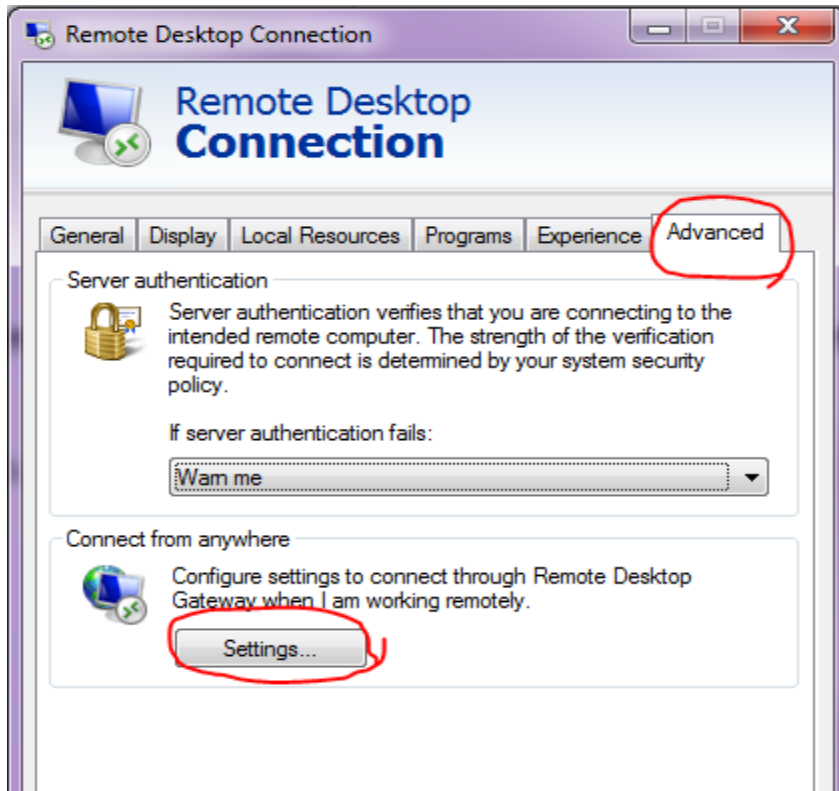
- 1. Open connections to the destination network listed above.**
- 2. Open port 3389/TCP (Windows Desktop Assistant/RDP client access) to all Destination addresses listed above.**
- 3. Start the Windows Desktop Assistant by selecting Start | Run | type "mstsc.exe".**
- 4. For the host, enter "vdc-us04-a.vmeduc.com" or "vdc-us24-a.vmeduc.com"**

**When prompted, login as username = student, password = student, Domain = VMEDUC. You will receive an error that the username or password is incorrect, But will confirm that you can connect to the test server using the RDP protocol, As the server you connected to could not authenticate the account. This error is A normal indication.**

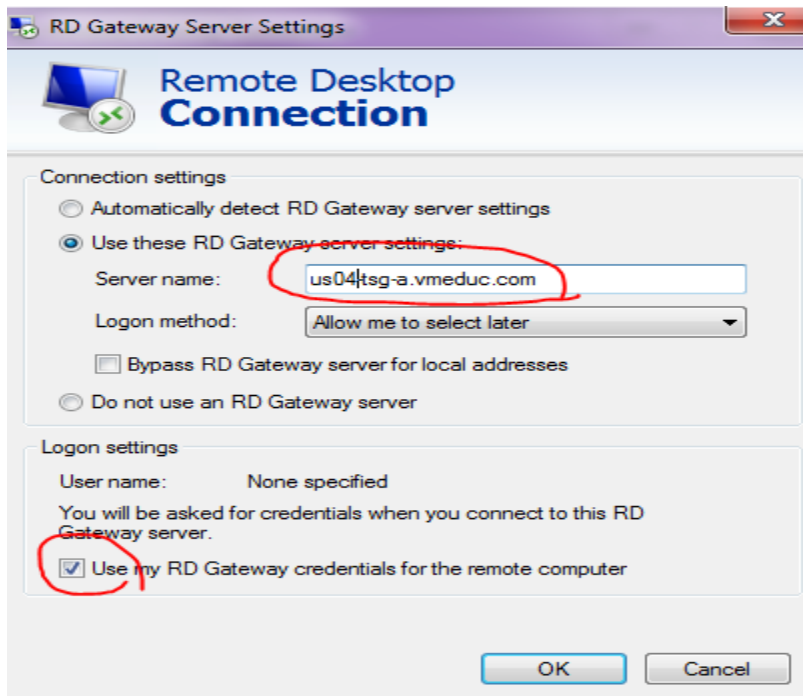
## HOW TO CONNECT VMWARE LAB ENVIRONMENT FROM RESTRICTED ONSITE ENVIRONMENT

\*\* Using Microsoft terminal Gateway Server

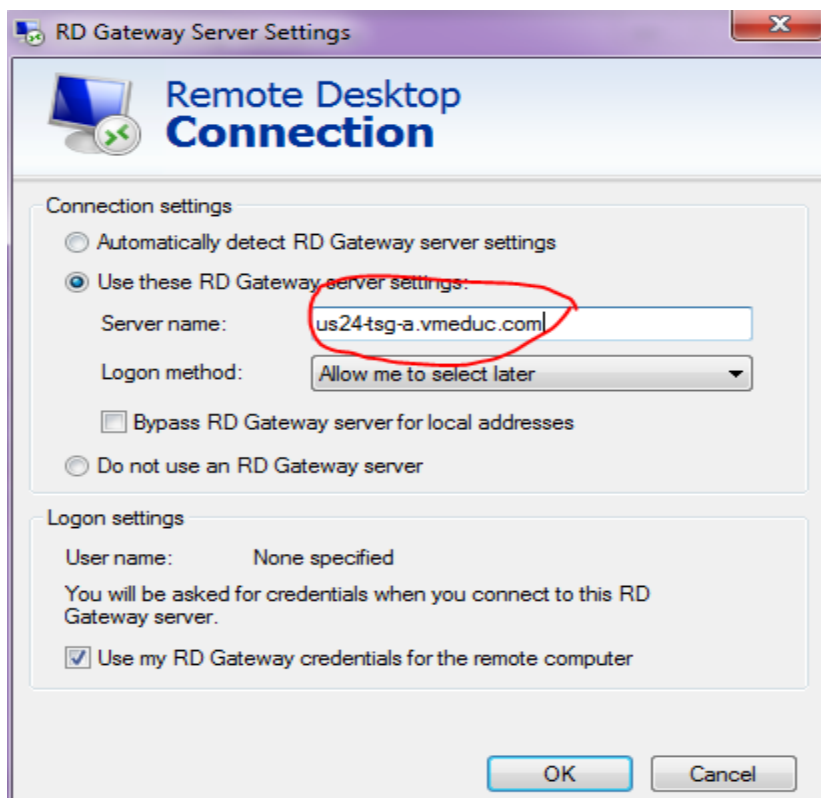
1. Launch Microsoft RDP Client go to Advanced >Setting



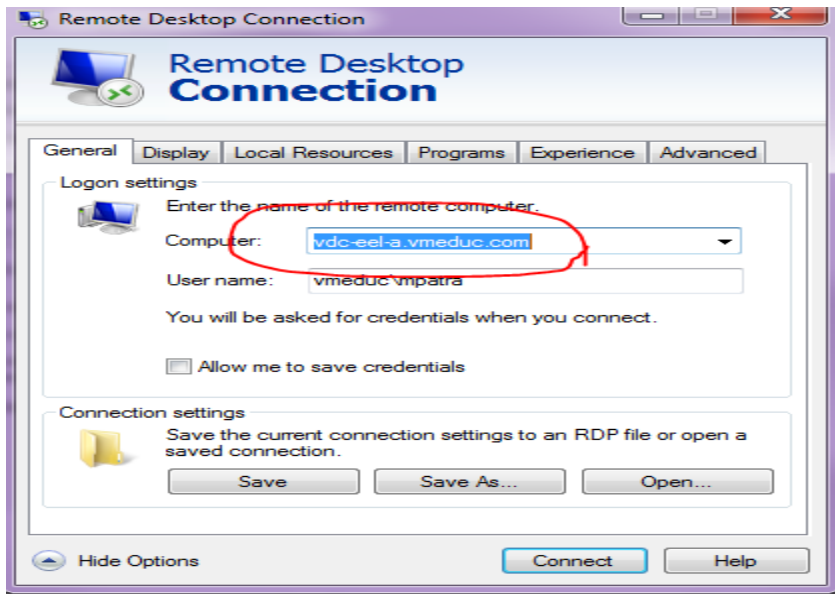
Input the RD gateway server settings. If you are connecting a **kit name** starts from A to M (ant, bat, grape, etc.) connect **us04-tsg-a.vmeduc.com** or **us04-tsg-b.vmeduc.com** or **us04-tsg-c.vmeduc.com** or **us04-tsg-d.vmeduc.com** click ok



Input the RD gateway server settings. If you are connecting a kit name starts from N to Z (newt, yak, zinc, etc.) connect **us24-tsg-a.vmeduc.com** or **us24-tsg-b.vmeduc.com** or **us24-tsg-c.vmeduc.com** or **us24-tsg-d.vmeduc.com** click ok



After clicking ok go to general tab enter your kit name TS server



Click on the general tab, enter your kitname TS server