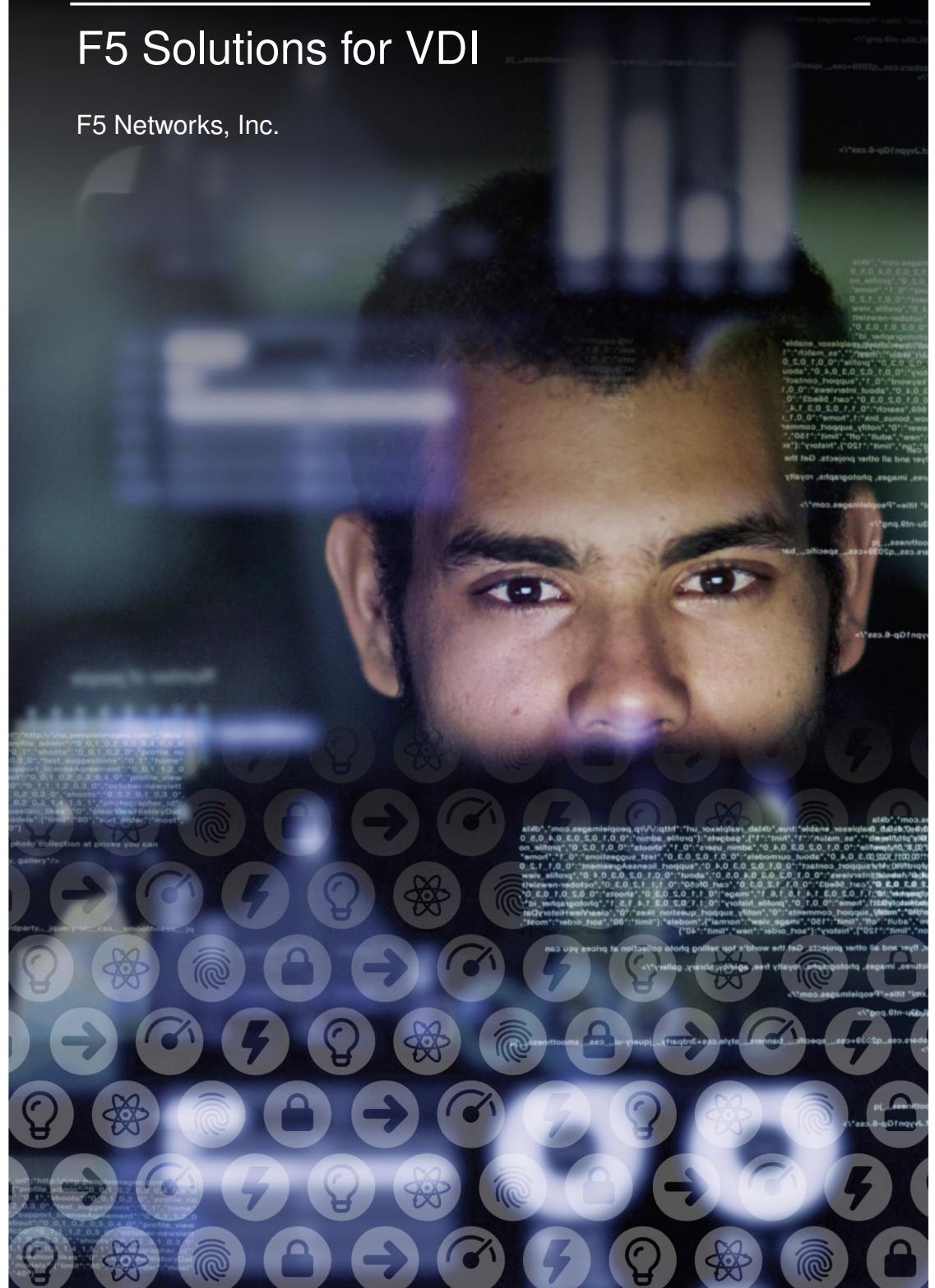




Agility 2017 Hands-on Lab Guide

F5 Solutions for VDI

F5 Networks, Inc.



Contents:

1	Getting Started	5
1.1	Lab Topology	5
2	201 - VDI the F5 Way	7
2.1	Module 1 - Solutions for VMware View	7
2.2	Module 2 - Solutions for Citrix XenDesktop	20
2.3	Module 3 - Microsoft RDS Proxy	25

1

Getting Started

Please follow the instructions provided by the instructor to start your lab and access your jump host.

Note: All work for this lab will be performed exclusively from the Windows jumphost. No installation or interaction with your local system is required.

1.1 Lab Topology

In the interest of focusing as much time as possible on this solution, we have provided some resources and basic setup ahead of time. These are:

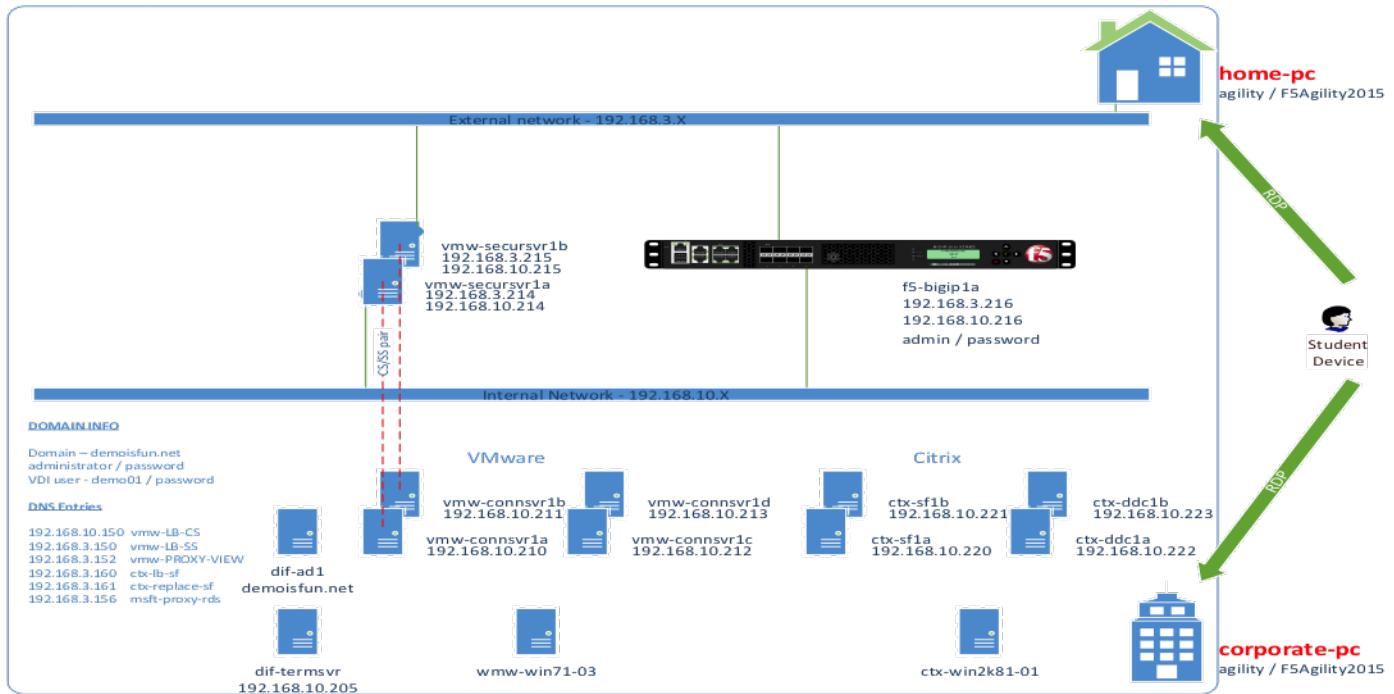
- The system has been licensed and provisioned for LTM and APM
- A Microsoft Active Directory environment has been configured for authentication
- A working VMware Horizon View environment has already been configured
- A working Citrix XenDesktop environment has already been configured
- Windows workstations with Citrix and View clients will be accessed using RDP to demonstrate functionality.

If you wish to replicate these labs in your lab you will need to build out the required infrastructure.

AGILITY 2015 - VDI the F5 way

Simulated Environment in Cloud

Updated 20150715



1.1.1 Lab Components

To do: Complete lab components table

The following table lists VLANS, IP Addresses and Credentials for all components:

Component	VLAN/IP Address(es)	Credentials
Sample Host	<ul style="list-style-type: none"> Management: 10.1.1.250 Internal: 10.1.10.250 External: 10.1.20.250 	admin/admin

2

201 - VDI the F5 Way

This guide is intended to compliment lecture material provided during the 201 course and iApp configuration guide that can be referred to after Agility.

2.1 Module 1 - Solutions for VMware View

The purpose of this module is to build out 3 basic VMware View architectures leveraging F5 load balancing and authentication functionality. Each student will access a separate instance of a common blueprint in the Ravello cloud.

Note: Each student will be given IP addresses for the “Internal” (corporate-pc) and “External”(home-pc) Windows workstation clients. The student will use RDP functionality on their personal laptop to access these devices to test the environment. All other addresses will be common across all labs

Objective:

- Construct VMware View implementations with F5 LTM and APM software modules
- Familiarize student with F5 iApp templates

Lab Requirements:

- Laptop with RDP functionality

Estimated completion time: 60 Minutes

2.1.1 Lab 1 – Solutions for VMware View

TASK 1 – Access VMware View Desktop environment without F5

Test the functional VMware view environment using the internal Connection Servers (Internal use case without F5 integration)

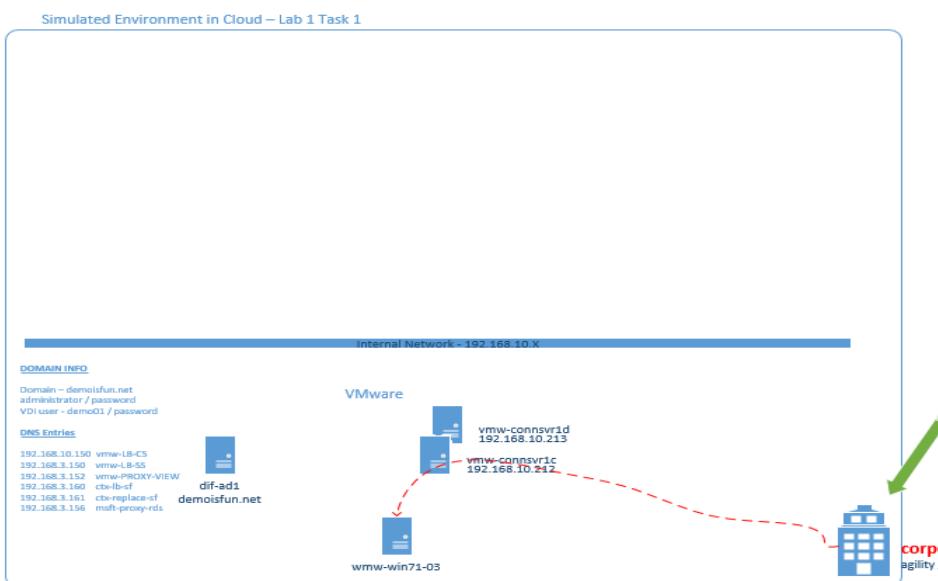
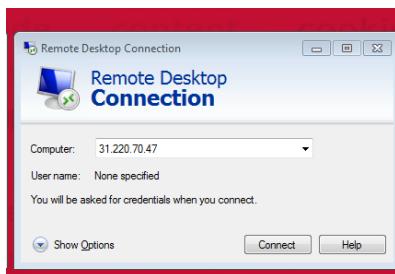


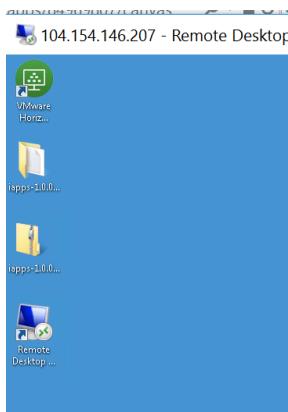
Figure 1 - Accessing internal View Desktop–

Access the VDI with a client on the internal network. The workstation will be preconfigured to initiate the connection through a specific connection server. Security servers are not used by internal VDI users

1. Use the RDP function on your laptop to connect to the “corporate-pc“ RDP server/workstation



1. When prompted for credentials
 - (a) Username: Agility
 - (b) Password: F5Agility



2. Use the VMware Horizon Client to access the connection server
 - (a) VMware Horizon Client

- (b) • New server
3. Connection Server address “vmw-connsrv1c.demoisfun.net”
 4. When prompted for credentials
 - (a) Username: demo01
 - (b) Password: password
 5. Select the View desktop (Agility—Rt click and Launch)
 6. Scroll down to task bar if needed
 7. Open Notepad and type in something.
 8. Slide the blue RDP indicator to the left
 9. Close the View client. (press the X in Agility Toolbar-was under the RDP)
 10. **Open View client and try to reconnect to “vmw-connsrv1c. demoisfun.net”**
 11. Notepad should still be on the desktop with the test you input
 12. Close the View client. (press the X in Agility Toolbar)
 13. ****Keep the RDP session open for Task 2 ****

TASK 2 – Load Balance VMware View connection servers

Use the F5 iApp for VMware View to configure a load balancing environment for the Connection Servers. This will increase the number of Connection Servers available to internal users and load balance access to these resources (Internal use case with F5 load balancing)

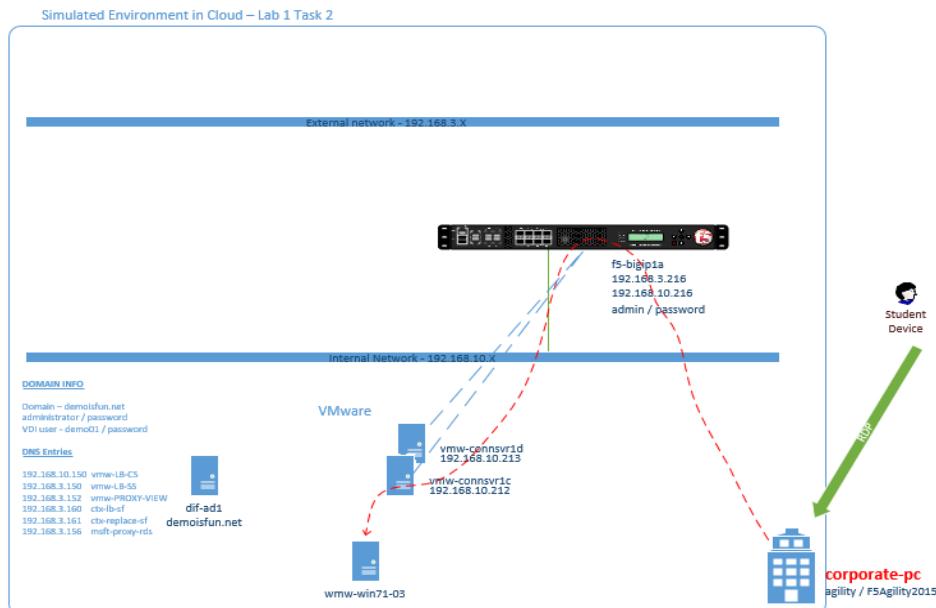


Figure 2 - Load balance Connection Servers

Deploy the iApp

1. Access the F5 Config GUI from the “corporate-pc” RDP server/workstation –
 - (a) <https://f5-bigip1a.demoisfun.net> (192.168.10.216)

- i. Username: admin
 - ii. Password: password
2. Create a new Application Service
- (a) iApps >> Application Services
 - (b) Press the **Create** button
 - (c) Name the Application Service **VM_LAB_1_LBCS**
 - (d) Select **f5.vmware_view.v1.5.1** for the template



1. Review the **Welcome to the iAPP template for VMware Horizon View**
2. Note the **Template Options** (leave these default)
3. **Big-IP Access Policy Manager** (Set this to **No** for this exercise)
4. SSL Encryption (Certs are preloaded for this exercise)

How should the BIG-IP system handle encrypted traffic?	Terminate SSL for clients, re-encrypt to View servers (SSL-bridging)
Which SSL certificate do you want to use?	wild.demoisfun.net.crt
Which SSL private key do you want to use	wild.demoisfun.net.key

1. **PC Over IP** (leave these default – No PCoIP connections...)
2. ****Virtual Servers and Pools ****

What virtual server IP address do you want to use for remote, untrusted clients?	192.168.10.150
What is the associated service port?	443
What FQDN will clients use to access the View environment	vmw-LB-CS.demoisfun.net
Which Servers should be included in this pool	192.168.10.212 192.168.10.213

1. **Client Optimization** (leave these default—Do not compress...)
2. **Application Health**
 - (a) Use the pulldown to select a standard https monitor
3. Press the **Finished** button

View the objects which were created by the iApp

1. Select the Components tab at the top of the page

Name	Availability	Type
VM_LAB_1_LBCS_01	Offline	Application Service
VM_LAB_1_LBCS_01_https	Offline	Virtual Server
VM_LAB_1_LBCS_01_pool_0	Offline	Pool
http		Monitor

1. Is the Virtual server available?

2. Are the pool members available?
3. What is the node status? Why?
4. Note that a persistence profile was created
 - (a) Check Match Across Services
 - (b) Press update
 - (c) Note the error at the top of the page
5. Return to iApp>>Application Services
6. Review the remaining parameters (any questions)

View the properties of the iApp

1. Select the Properties tab at the top of the page

The screenshot shows the 'Properties' tab selected in the iApp interface. The application service is set to 'Basic'. The configuration includes:

Application Service	VM_LAB_1_LBCS_01
Partition / Path	Common/VM_LAB_1_LBCS_01.app
Description	[Empty]
Template	f5.vmware_view.v1.1.0

At the bottom are 'Update' and 'Delete' buttons.

- 2.
3. Use the pull down next to Application Service:
4. Select Advanced
5. Note the check in Strict Updates
 - (a) Is this related to the screen when editing the persistence profile?
 - (b) What are the pro's and con's of unchecking this parameter?

Test the connection server load balancing using both VMware View client and browser access methods.

1. Use the RDP function on your laptop to connect to the “corporate-pc” RDP server/workstation
 - (a) Same process as Task 1 if you are not still connected
2. Open View client and connect to the Virtual Server just created with iApp.
 - (a) +New Server
 - i. vmw-LB-CS.demoisfun.net (192.168.10.150)
 - ii. IP address will not work—Certificate contains demoisfun.net
3. When prompted for credentials
 - (a) Username: demo01
 - (b) Password: password
4. Select the View desktop (Agility)
5. Use connect button to access

6. Slide the blue RDP indicator to the left
7. Close the View client. (press the X in Agility Toolbar-was under the RDP)
8. Use a supported browser to access the VDI (IE on the RDP workstation)

Minimum versions of supported browsers are listed in this table.			
IE	Firefox	Chrome	Safari
9	15	22	5.1

9. <https://vmw-LB-CS.demoisfun.net>
10. Select VMware Horizon View HTML access
11. Log in
 - (a) Username: demo01
 - (b) Password: password
12. Select (Agility)
13. Accept Cert Warnings
14. Verify that the desktop functions
15. Close the browser window

TASK 3 – Access View Desktop environment through Security Server

Test the functional VMware View environment using external Security Servers. (External use case without F5 integration)

Note: This environment shows a user connecting to a native VMware security server which is statically mapped to a VMware connection server. This is a non-redundant external access model

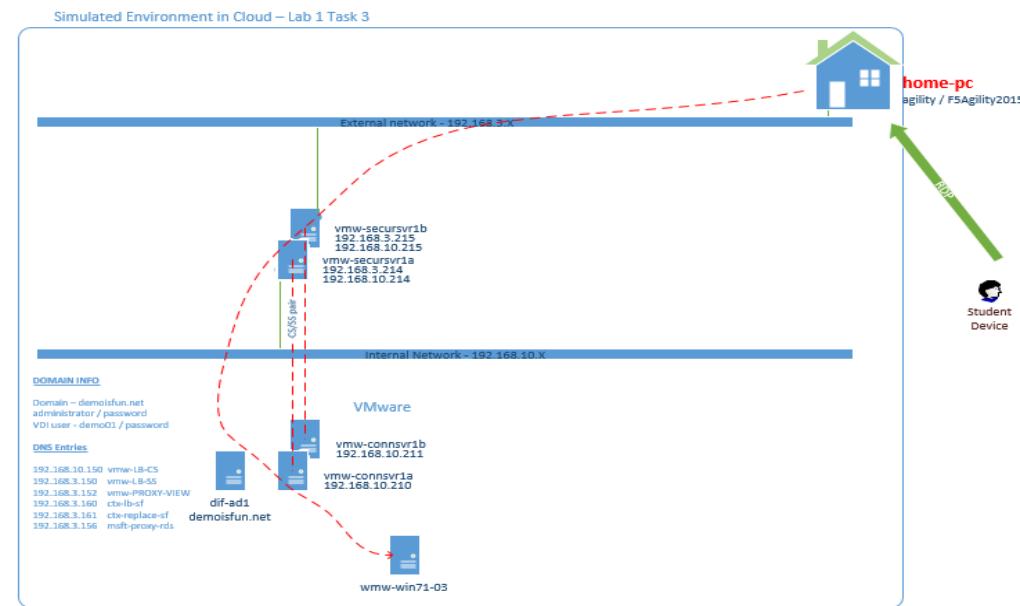
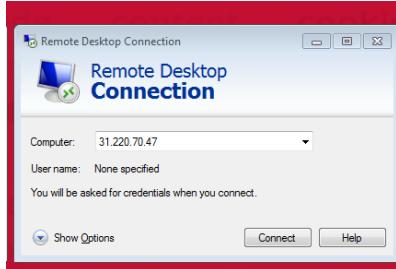


Figure 3 - Access external View Desktop

Access the VDI using the Security Server from a Windows Server RDP session

1. Use the RDP function on your laptop to connect to the “**home-pc**” RDP server/workstation



1. When prompted for credentials

- (a) Username: agility
- (b) Password: F5Agility



2. Use the VMware Horizon View client to access the security server

- (a) +New Server
- (b) Security Server address “vmw-secursvr1a.demoisfun.net”

3. When prompted for credentials

- (a) Username: demo01
- (b) Password: password

4. Select the View desktop (Right Click on Agility - Launch)

5. Slide the blue RDP indicator to the left

6. Close the View client. (press the X in Agility Toolbar-was under the RD)

- (a) vmw-secursvr1a.demoisfun.net

7. Use a supported browser to access the VDI (IE on the RDP workstation)

Minimum versions of supported browsers are listed in this table.

IE	Firefox	Chrome	Safari
9	15	22	5.1

8. Access the application through your browser <https://vmw-secursvr1a.demoisfun.net>
 - (a) vmw-secursvr1a.demoisfun.net
 - (b) Username: demo01
 - (c) Password: password
9. Select VMware Horizon View HTML access
10. Log in
 - (a) Username: demo01
 - (b) Password: password
11. Select (Agility)
12. Accept Cert at warning
13. Select (Agility)
14. Verify that the desktop functions
 - (a) Scroll down to taskbar
15. Close the browser

192.168.3.150

TASK 4 – Load Balance VMware View security servers

Use the F5 iApp for VMware View to configure a load balancing environment for the Security Servers. This will increase the number of Security Servers available to internal users and load balance access to these resources (External use case with F5 load balancing)

Note: This environment load balances 2 external facing Security Servers. These Security Servers are directly mapped to 2 existing connection servers in the environment (not the 2 Connections Servers that are load balanced in the steps above)

Simulated Environment in Cloud – Lab 1 Task 2

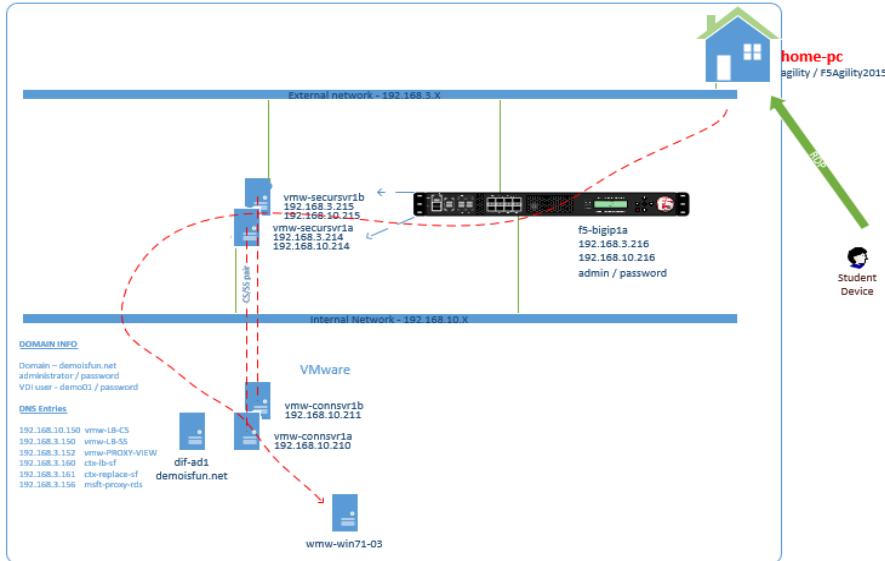


Figure 4 - Load balance Security Servers

Deploy the iApp

1. Use the RDP function on your laptop to connect to the “corporate-pc” RDP server/workstation
 - (a) Same process as Task 1 if you are not still connected
2. Create a new Application Service by selecting
 - (a) iApps >> Application Services
 - (b) Press the **Create** button
 - (c) Name the Application Service **VM_LAB_1_LBSS**
 - (d) Select **f5.vmware_view.v1.5.1** for the template



1. Review the **Welcome to the iAPP template for VMware Horizon View**
2. Note the **Template Options** (leave these default)
3. **Big-IP Access Policy Manager** (Set this to **No** for this exercise)
4. **SSL Encryption** (Certs are preloaded for this exercise)

How should the BIG-IP system handle encrypted traffic?	Terminate SSL for clients, re-encrypt... (SSL-Bridging)
Which SSL certificate do you want to use?	wild.demoisfun.net.crt
Which SSL private key do you want to use?	wild.demoisfun.net.key

1. **PC Over IP** (leave these default – No PCoIP connections...)
2. ****Virtual Servers and Pools ****

What virtual server IP address do you want to use for remote, untrusted clients?	192.168.3.150
What is the associated service port?	443
What FQDN will clients use to access the View environment?	vmw-LB-SS.demoisfun.net
Which Servers should be included in this pool?	192.168.3.214 192.168.3.215

1. **Client Optimization** (leave these default—Do not compress...)
2. **Application Health**
 - (a) Use the pulldown to select a standard https monitor
3. Press the **Finished** button

View the objects which were created by the iApp

1. Select the Components tab at the top of the page
2. Is the Virtual server available?
3. Are the pool members available?
4. Is the Node Available?
5. Review the remaining parameters (any questions)

Test the Security Server load balancing using both VMware View client and browser access methods

1. Use the RDP function on your laptop to connect to the “home-pc” RDP server/workstation
2. Open View client and connect to the Virtual Server just created with iApp.
 - (a) +New Server
 - i. vmw-LB-SS.demoisfun.net (192.168.3.150)
 - ii. IP address will not work—Certificate contains demoisfun.net
3. When prompted for credentials
 - (a) Username: demo01
 - (b) Password: password
4. Select the View desktop (Agility)
5. Use connect button to access
6. Slide the blue RDP indicator to the left
7. Close the View client. (press the X in Agility Toolbar-was under the RD)
8. Use a supported browser to access the VDI (IE on the RDP workstation)

Minimum versions of supported browsers are listed in this table.

IE	Firefox	Chrome	Safari
9	15	22	5.1

9. <https://vmw-LB-SS.demoisfun.net>
10. Select VMware Horizon View HTML access
11. Enter Credentials
 - (a) Username: demo01
 - (b) Password: password
12. Select (Agility)
13. Accept Cert warning
14. Select (Agility)
15. Verify that the desktop functions
16. Close the browser

TASK 5 – Replace Security Servers and leverage APM as a PCOIP proxy

Use the VMware View iApp to replace Security Server to proxy PCoIP traffic

Note: This environment will utilize Big-IP as a PCOIP Proxy. This eliminates the requirement for all Security Servers. The Connection Servers will be load balanced. Authentication is handled by the F5 APM module

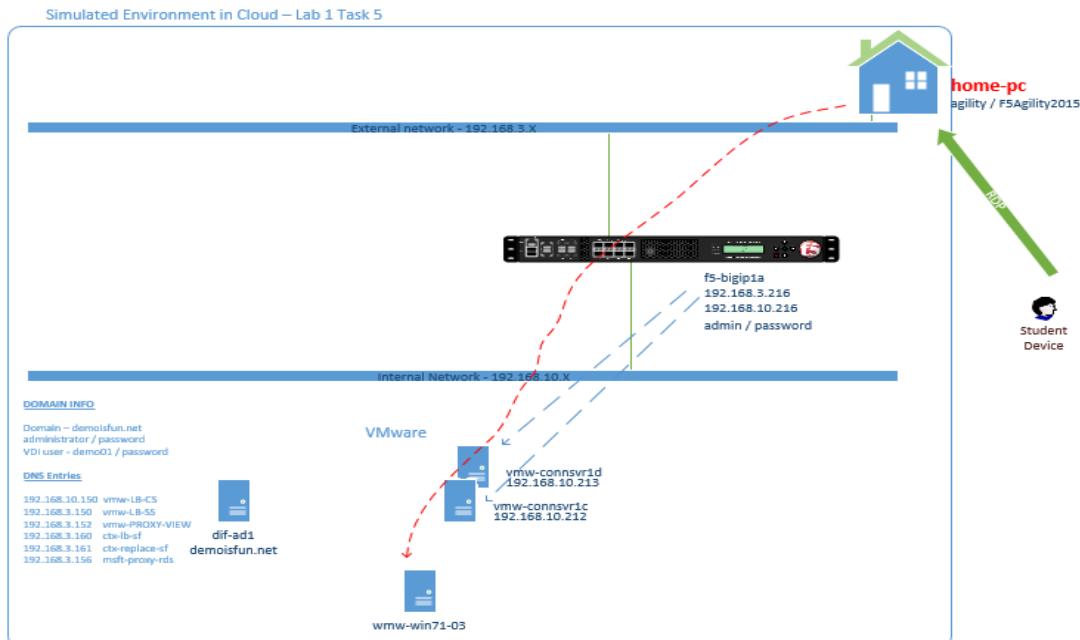


Figure 5 - Replace Security Servers

Deploy the iApp

1. Use the RDP function on your laptop to connect to the “corporate-pc” RDP server/workstation
 - (a) Same process as Task 1 if you are not still connected
2. Create a new Application Service by selecting iApps -> Application Services and selecting Create
 - (a) iApps >> Application Services
 - (b) Press the **Create** button
 - (c) Name the Application Service **VM_LAB_1_PCOIP**
 - (d) Select **f5.vmware_view.v1.5.1** for the template



iApp Configuration

1. Review the **Welcome to the iAPP template for VMware Horizon View**
2. Note the **Template Options** (leave these default)
3. **Big-IP Access Policy Manager**

Do you want to deploy BIG-IP Access Policy Manager?	Yes, deploy BIG-IP Access Policy Manager
Do you want to support browser based connections, including the View HTML5 client?	Yes, support HTML 5 view clientless browser connections
Should the BIG-IP system support RSA SecureID two-factor authentication	NO, do not support RSA SecureID two-factor authentication
Should the BIG_IP system show a message to View users during logon	No, do not add a message during logon
What is the NetBIOS domain name for your environment	demoisfun
Create a new AAA Server object **or select an existing one **	AD1

1. SSL Encryption (Certs are preloaded for this exercise)

How should the BIG-IP system handle encrypted traffic?	Terminate SSL for clients, re-encrypt... (SSL-Bridging)
Which SSL certificate do you want to use?	wild.demoisfun.net.crt
Which SSL private key do you want to use?	wild.demoisfun.net.key

1. **PC Over IP** (leave these default)
2. ****Virtual Servers and Pools ****

What virtual server IP address do you want to use for remote, untrusted clients?	192.168.3.152
What is the associated service port?	443
What FQDN will clients use to access the View environment?	vmw-PROXY-VIEW.demoisfun.net
Which Servers should be included in this pool?	192.168.10.212 192.168.10.213

1. **Application Health**

- (a) Use the pull down to select a standard https monitor
2. Press the **Finished** button

View the objects which were created by the iApp

1. Select the Components tab at the top of the page
2. Note the increase in objects compared to Task 2 and Task 4
3. Are the pool members available?
4. Note the APM objects which were not present in the prior exercises
5. Review the remaining parameters (any questions)

Test the APM (PCoIP) functionality using both VMware View client and browser access methods

Use the RDP function on your laptop to connect to the “home-pc” or use the browser / local view client on your laptop to access vmw-PROXY-VIEW.demoisfun.net

1. Open View client and connect to the Virtual Server just created with iApp.
 - (a) vmw-PROXY-VIEW.demoisfun.net (192.168.3.152)
 - (b) IP address will not work—Certificate contains demoisfun.net
2. When prompted for credentials
 - (a) Username: demo01
 - (b) Password: password
3. If authentication fails
 - (a) Access Policy>>Manage Sessions
 - (b) Look at the entire session log
 - i. More detail can be captured by enabling debug
 - (c) Note the clock skew error
 - (d) Use the “Corporate PC” to Connect to the F5 Big IP GUI <https://192.168.10.216>
 - (e) Set the time on the big IP to match the time on the corporate-pc
 - i. date MMDDhhmm Keep in mind—the big IP uses military time 1:25 PM = 13:25
 - (f) Return to step 1
4. Select the View desktop (Agility)
5. Use connect button to access
6. Close the View client. (press the X in the upper right corner of the screen)
7. <https://192.168.3.152>
 - (a) Username: demo01
 - (b) Password: password
8. Select (Agility) from the webtop
9. Select VMware View Client on the desktop

10. Note the error and inspect the certificate
11. Close the error box and cert view boxes
12. Open VMware View Client
 - (a) vmw-PROXY-VIEW.demoisfun.net
 - (b) Username:demo01
 - (c) Password: password
13. Select (Agility) from the webtop
14. Select VMware View client
15. When the desktop opens, open Notepad and enter some text (leave this on the screen)
16. Slide the blue RDP indicator to the left
17. Close the View client. (press the X in Agility Toolbar-was under the RD)
18. Use a supported browser to access the VDI (IE on the RDP workstation)
19. <https://vmw-PROXY-VIEW.demoisfun.net>
20. Select VMware Horizon View HTML access
21. Enter Credentials
 - (a) Username: demo01
 - (b) Password: password
22. Select (Agility)
23. Select HTML5 Client
24. Verify that the desktop functions
25. Close the browser

2.2 Module 2 - Solutions for Citrix XenDesktop

The purpose of this module is to build out 2 common F5 deployment with XenDesktop.

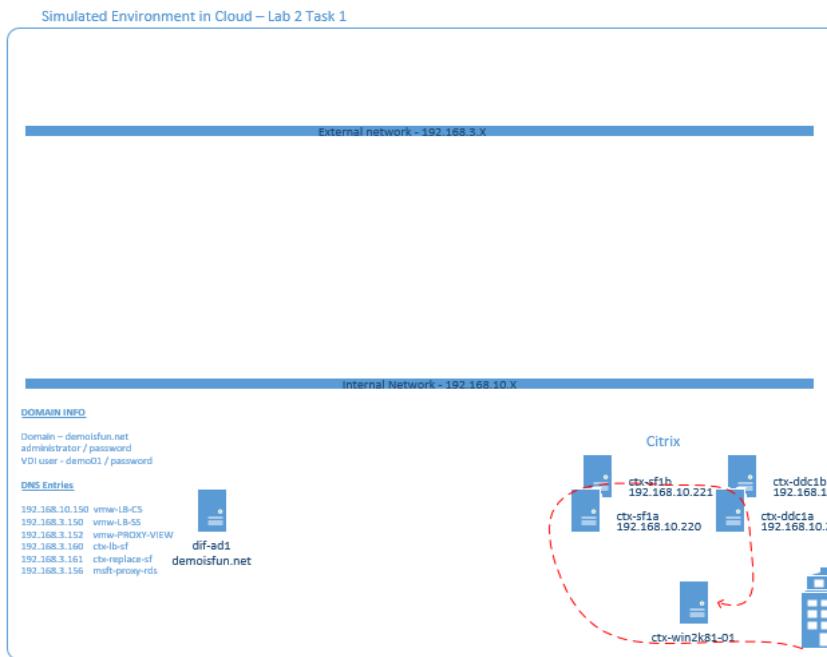
Note: The connectivity in this environment is slower than a typical production environment—please be patient

2.2.1 Lab 2 – Solutions for Citrix XenDesktop

The purpose of this lab is to build out 2 common F5 deployment with XenDesktop.

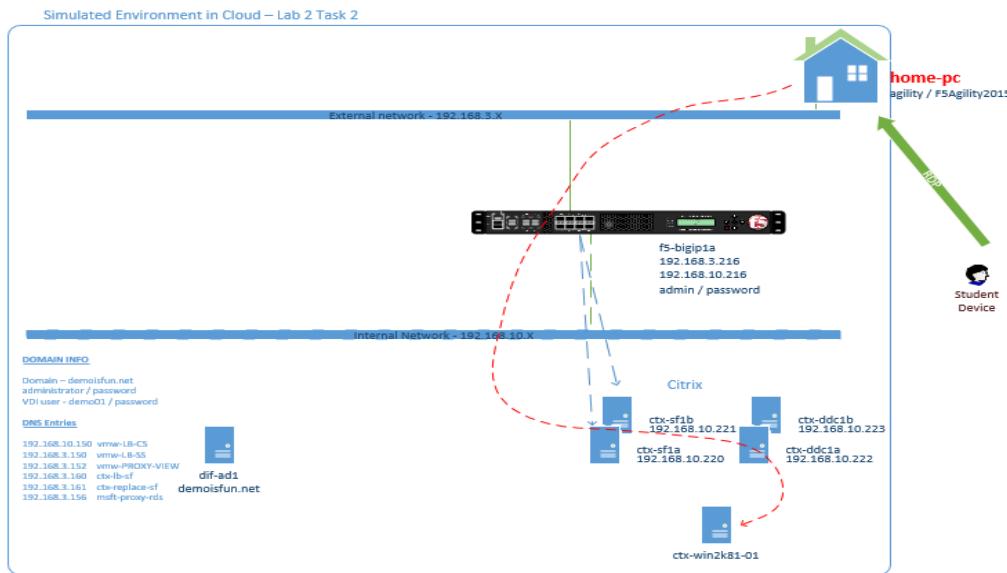
Note: The connectivity in this environment is slower than a typical production environment—please be patient

TASK 1 – Access XenDesktop without F5



1. From “corporate-pc”, use IE and browse to Citrix Storefront at <http://ctx-sf1a.demoisfun.net/Citrix/AgilityStoreWeb/>
2. When prompted for credentials
 - (a) Username: demoisfun\demo01
 - (b) Password: password
3. Right Click “Agility” and select “Start” icon to launch XenDesktop.
 - (a) *Note: This takes a long time due to the Ravello implementation*
4. Citrix “Desktop Viewer” launches and connects to XenDesktop.
5. When the windows Activation Screen Pops up..Press Cancel (windows was not activated due to external connectivity limitations)
6. Log off using the windows start icon in the lower left corner
7. Log off the Citrix receiver client using the 01 Demo pulldown in the upper right corner
8. Close the browser Window

TASK 2 – Load Balance StoreFront



Deploy the iApp

1. Use the RDP function on your laptop to connect to the “corporate-pc”
2. Create a new Application Service by selecting iApps -> Application Services and selecting Create
 - (a) iApps >> Application Services
 - (b) Press the **Create** button
 - (c) Name the Application Service **VM_LAB_2_LBSF**
 - (d) Select **f5.citrix_vdi.v2.3.0** for the template



iApp Configuration

1. Review the **Welcome to the iApp template for XenDesktop and XenApp**
2. **General**

Use APM to securely proxy application (ICA) traffic and authenticate users into your Citrix environment?	Yes, Proxy ICA traffic and authenticate users with BIG_IP
What is the Active Directory NetBIOS Domain Name used for your Citrix servers?	demoisfun

1. BIG-IP Access Policy Manager

Do you want to replace Citrix Web Interface or StoreFront servers with the BIG-IP system?	“No, do not replace...”
Create a new AAA object or select an existing one?	AD1

1. ****Virtual Server for Web Interface or StoreFront servers ****

How should the BIG-IP system handle encrypted traffic to Web Interface or StoreFront servers?	Terminate SSL for Clients, Plaintext to Citrix servers (SSL offload)
Which SSL certificate do you want to use?	wild.demoisfun.net.crt
Which SSL private key do you want to use?	wild.demoisfun.net.key
What IP address will clients use to access the Web Interface or StoreFront servers, or the F5 Webtop?	192.168.3.160
Did you deploy Citrix StoreFront?	Yes, ... StoreFront 3.0 or 3.6 Note: we are running SF 3.9
What is the URI used on StoreFront or Web Interface servers for XenApp or XenDesktop?	/Citrix/AgilityStoreWeb/ <i>Note that this is the same URL used to access citrix directly in Task 1</i>

1. Web Interface or StoreFront servers

What DNS name will clients use to reach the Web Interface or StoreFront servers?	ctx-LB-SF.demoisfun.net
Which port have you configured for Web Interface or StoreFront HTTP traffic?	80
What are the IP addresses of your Web Interface or StoreFront servers?	192.168.10.220 192.168.10.221
Which Monitor do you want to use	http

1. Virtual Server for XML Broker or Desktop Delivery Controller (DDC) Servers

What IP address do you want to use for the XML Broker or DDC farm virtual server?	192.168.10.161
How will requests from the Web Interface or StoreFront servers arrive?	XML Broker or DCC requests will arrive unencrypted (HTTP)

1. **XML Broker or DDC Servers **

What are the IP addresses of your XML Broker or DDC servers?	192.168.10.222 192.168.10.223
Which monitor do you want to use?	http

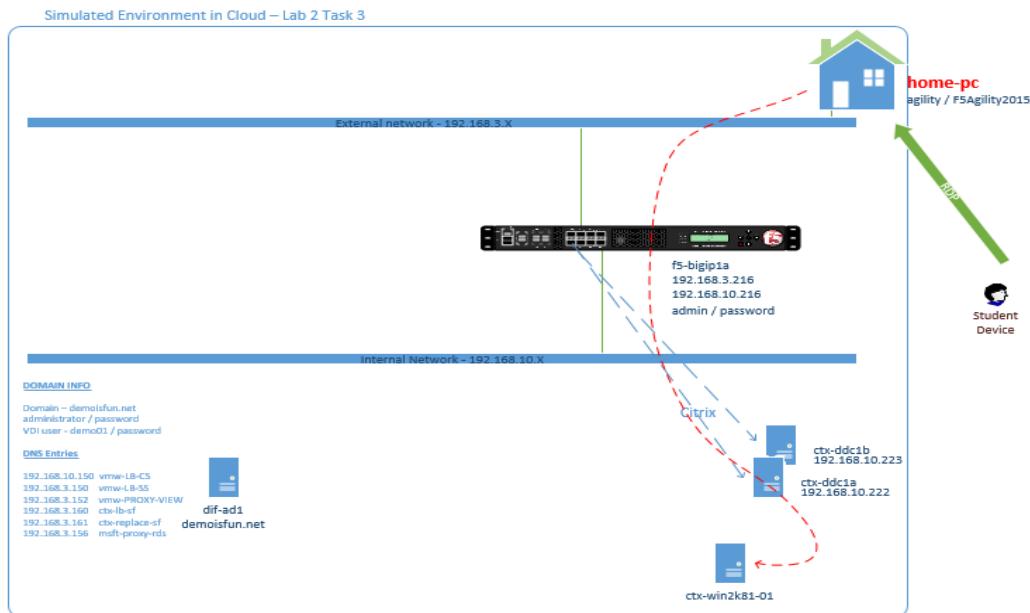
1. Press the **Finished** button

Test connectivity

1. Use the RDP function on your laptop to connect to the “home-pc”
2. Launch IE and browse to <http://ctx-lb-sf.demoisfun.net>
3. When prompted for credentials
 - (a) Username: demo01
 - (b) Password: password
4. Storefront is displayed with Agility icon.
5. Right Click on “Agility” and select “Start” icon to launch XenDesktop.
 - (a) *Note: This takes a long time due to the Ravello implementation*
6. Log off using the windows start icon in the lower left corner

7. Log off the Citrix receiver client using the 01 Demo pulldown in the upper right corner
8. Close the browser Window

TASK 3 – Reconfigure the iApp to Replace StoreFront



Deploy the iApp

1. Use the RDP function on your laptop to connect to the “corporate-pc”
2. Create a new Application Service by selecting iApps -> Application Services and selecting Create
 - (a) iApps >> Application Services
 - (b) Click on **VM_LAB_2_LBSF**
 - (c) Click the **Reconfigure** link near the top



iApp Configuration

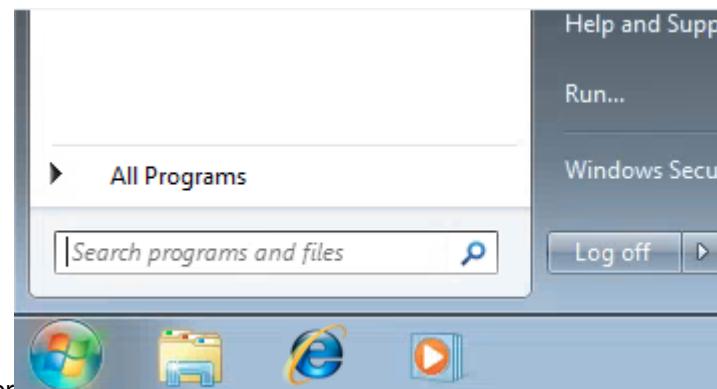
1. BIG-IP Access Policy Manager

Do you want to replace Citrix Web Interface or StoreFront servers with the BIG-IP system?	"Yes, replace Citrix..."

1. Scroll through the template and note that the storefront pool members are no longer present
2. Press the **Finished** button

Test connectivity

1. Use the RDP function on your laptop to connect to the “home-pc”
2. Launch IE and browse to <http://ctx-lb-sf.demoisfun.net>
3. When prompted for credentials
 - (a) Username: demo01
 - (b) Password: password
4. APM webtop is displayed with Agility icon.
5. Click on Agility icon to launch XenDesktop.
6. When the windows Activation Screen Pops up..Press Cancel (windows was not activated due to external connectivity limitations)



7. Log off using the windows start icon in the lower left corner
8. Logout using the Logout button in the upper right corner of the screen
9. Close the broiwsr window

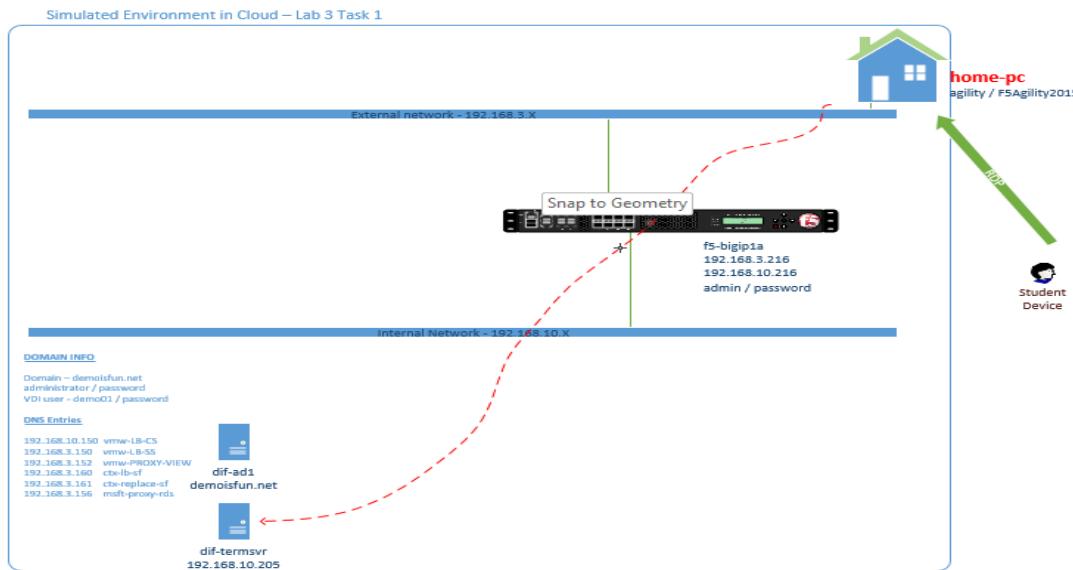
2.3 Module 3 - Microsoft RDS Proxy

The purpose of this module is access an internal RDS server from an external client.

2.3.1 Lab 3 – Microsoft RDS proxy

The purpose of this lab is access an internal RDS server from an external client.

TASK 1 – Access Terminal Server from external



Deploy the iApp

1. Use the RDP function on your laptop to connect to the “corporate-pc”
2. Connect to the F5 config GUI
 - (a) <https://192.168.10.216>
 - (b) Username: admin
 - (c) Password: password
3. Create an NTLM Machine Account
 - (a) Access >>Authentication>>NTLM>>Machine Account

Name	AD1-f5-bigip1a
Machine Account Name	f5-bigip1a
Domain FQDN	demoisfun.net
Domain Controller FQDN	dif-ad1.demoisfun.net
Admin User	administrator
Password	password

1. Use the **JOIN** button to create the machine account
2. Create a new Application Service by selecting iApps -> Application Services and selecting Create
 - (a) iApps >> Application Services
 - (b) Press the **Create** button
 - (c) Name the Application Service **VM_LAB_3_RDS**
 - (d) Select **f5.microsoft_rds_remote_access.v1.0.0** for the template



iApp Configuration

1. Review the **Welcome to the iApp template for Remote Desktop Gateway**
2. **Template Options**

Do you want to deploy BIG-IP APM as an RDP proxy?	Yes, deploy BIG-IP Access Policy Manager

1. **Access Policy Manager**

Do you want to create a new AAA server, or use an existing AAA server?	AD1
Which NTLM machine account should be used for Kerberos delegation?	AD1-f5-bigip1a

1. **Network (leave defaults)**

2. **SSL Encryption**

Which SSL certificate do you want to use?	wild.demoisfun.net.crt
Which SSL private key do you want to use?	wild.demoisfun.net.key

1. ****Virtual Servers and Pools ****

What IP address do you want to use for the virtual server(s)?	192.168.3.156
How would you like to secure your hosts?	Allow any host

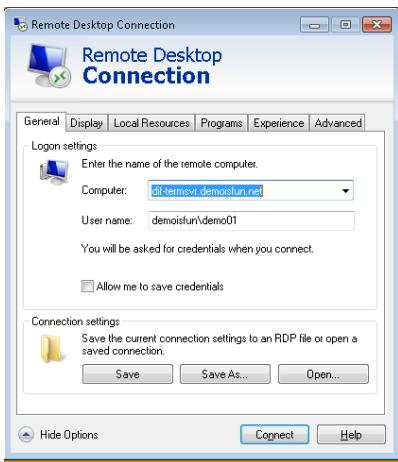
1. Press the **Finished** button

Test the RDS proxy functionality using RDS Client

1. Use the RDP function on your laptop to connect to the “home-pc”
2. Launch RDS client (on desktop).
 - (a) Select the “Show Options” Pulldown
 - i. Select the “Advanced” tab
 - A. Select the Settings button
 - B. Note the configuration of the RD Gateway. msft-proxy-rds.demoisfun.net resolves to the address 192.168.3.156 which was configured in the iApp



1. Verify the settings and click the OK button
1. Under “General” tab, in the “Computer” field, type in the name of the host you want to RDP to which is “dif-termsvr.demoisfun.net”



2. Clock “Save”
3. Click “Connect”
1. When prompted for credentials
 - (a) Username: demo01
 - (b) Password: password
2. Accept Certificate warning



1. You are connected to dif-termsvr.demoisfun.net
1. Use the “Corporate PC” to Connect to the F5 Big IP GUI <https://192.168.10.216>
2. Access>>Overview>>Active Sessions
3. Click on the session to view details

Session Details - 9207f214		
Report Name	Local Time	Log Message
	2016-01-23 16:51:55	User administrator@demoisfun from HOME-PC is authenticated
	2016-01-23 16:51:55	W: User-Agent header is absent or empty
	2016-01-23 16:51:55	Received client info - Type: unknown Version: 0 Platform: unknown CPU: unknown UI Mode: Full Javascript Support: 0 ActiveX Support: 0 Plugin Support: 0
	2016-01-23 16:51:55	New session from client IP 192.168.3.192 (ST=OCe/Ce) at VIP 192.168.3.156 Listener iCommon\VM_LAB_3_RDS.app\VM_LAB_3_RDS_vs (Reputation=Unknown)
	2016-01-23 16:51:55	Following rule 'Fallback' from item 'RDS Policy Assign' to ending 'Allow'
	2016-01-23 16:51:55	Access policy result: LTM+APM_Mode
	2016-01-23 16:51:56	Following rule 'Successful' from item 'Restrict Target Port' to ending 'Allow'
	2016-01-23 16:51:56	Access policy result: LTM+APM_Mode
	2016-01-23 16:51:59	Following rule 'Successful' from item 'Restrict Target Port' to ending 'Allow'
	2016-01-23 16:51:59	Access policy result: LTM+APM_Mode

4. Log off using the windows start icon in the lower left corner

WE MAKE APPS



FASTER.
SMARTER.
SAFER.



F5 Networks, Inc. | f5.com