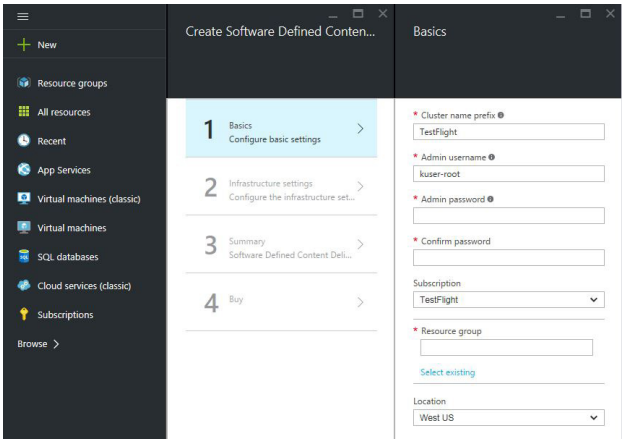
SD ECDN Trial on Microsoft Azure User Guide

This User Guide walks you through the steps to deploy and provision a live trial of the peering aspect of the Kollective Software Defined Enterprise Content Delivery Network (SD ECDN) on Microsoft Azure. The heart of the SD ECDN is the software agents that are deployed on users' phones, tablets, PCs and Macs. These agents collectively form a smart grid and share one video stream from a source, or origin server (peering).

The objective of the trial is to see a live example of the peering interaction between the agents. You will be provided with credentials to deploy and run three Virtual Machines which represent the agents on three user devices. You will be able to stream live video from one device to the other two devices. Then you will remove the video source from VM #1 and see the Virtual Machines #2 and #3 elect a new LAN Leader, demonstrating the peering and automatic origin server change selection process as the video stream continues uninterrupted.

As you are probably reading this User Guide on line, it is recommended to either print it out, or move it to your second screen so that you can follow along.

1. To begin the trial deployment process from SD ECDN page on Azure Marketplace, click the **Create** button.
2. Choose the Basics parameters. Type in or select the six parameters required by these UI panes. This is the first entry screen (blade) in the deployment UI *"Basics"*.



3. **Cluster name prefix:** Leave the default value “Testflight”.

4. **Admin user name:** Leave the default value “kuser-root”.

5. **Admin password:** Create your own password. You will need this password to log on to each of the three Virtual Machines (VMs).

This password must contain one capitalized letter, one lower case letter and one number, and must be at least 8 characters long, as summarized in the tool tip for this field.

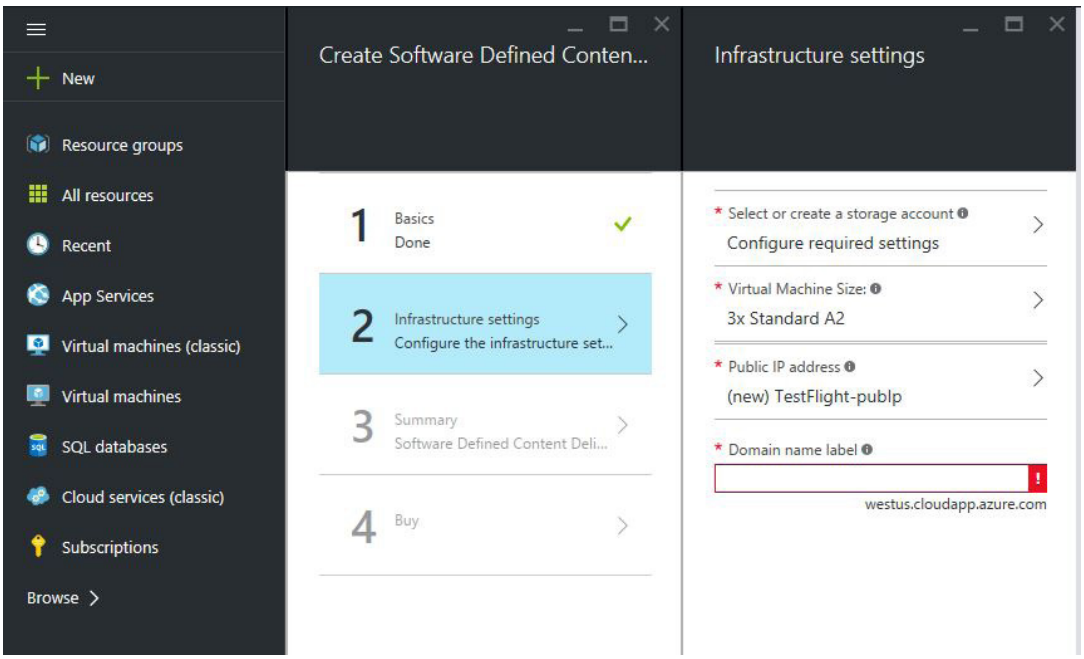
The **Resource Group** is like a container in your Azure subscription that will hold all of these created components. Although you can deploy into an existing Resource Group, it is recommended that you create a new one just to make it easier to remove the trial after you are finished with it.

6. **Resource Group:** Create a Resource Group name. This name needs to be one word with no spaces.

7. **Location:** Choose the data center that is closest to your location. Choosing a distant location could impair the performance of the trial.

Note: The most manageable action is to create a new Resource Group on the first blade and also to create a new storage account in this blade (the new storage account will be created inside of the new resource group). This way, the deployment stays isolated from other resources/deployments that you may have in your account and it will be as easy as just deleting the resource group to remove the whole trial when you are finished with the trial. If you deploy into an existing resource group and/or use an existing storage account that may already contain other deployments, then you will have to selectively remove the trial pieces without disturbing their other deployments.

8. **Choose the Infrastructure Settings**



The storage account can be selected (if you already have one in your account/location that you want to use), or you can create it at this point in the workflow. The storage account will hold the VHDs (virtual hard disks) of the three VMs that are created.

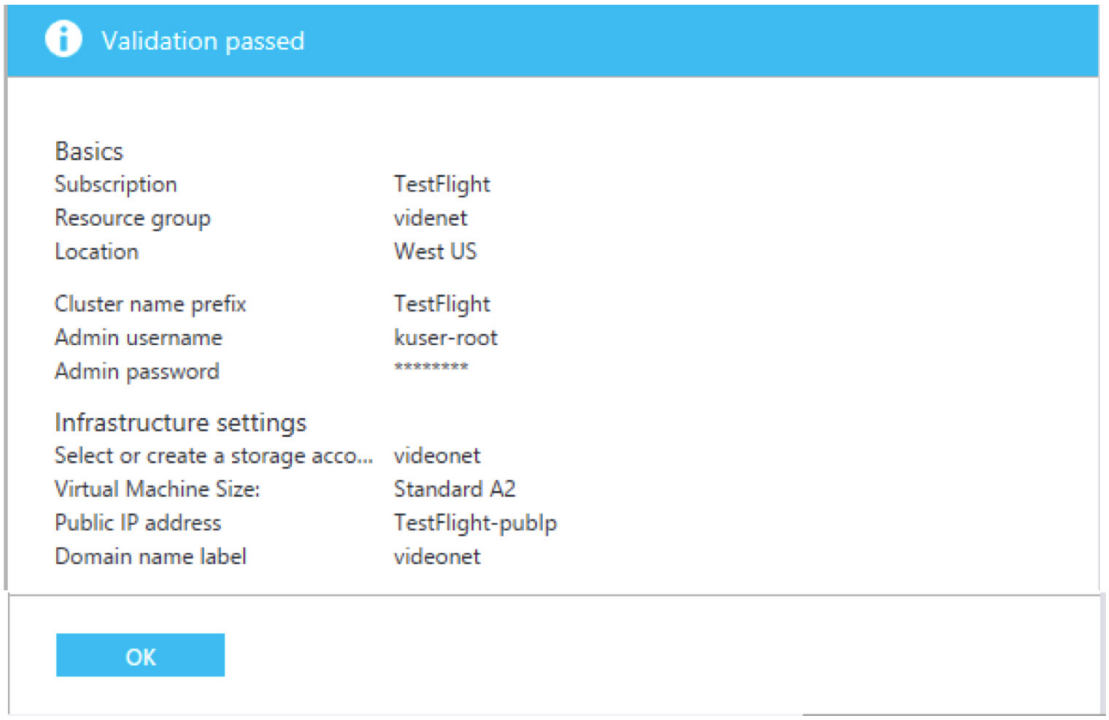
9. *Select or create a storage account:* One word with no spaces.

10. Select a *Virtual Machine Size*: Recommend 3X Standard A2.

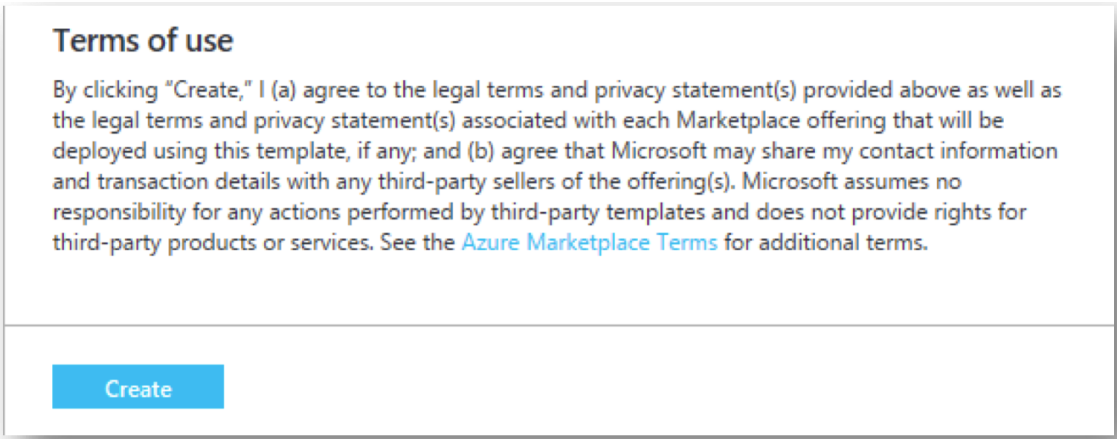
11. Create a *Domain name label*: One word with no spaces.

12. Click **OK**. Wait for the deployment to be validated.

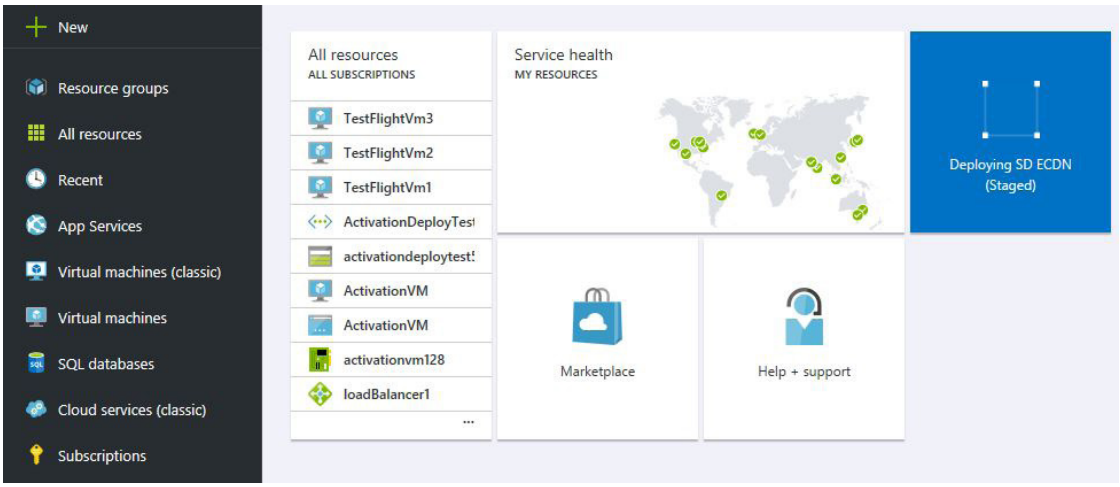
13. **Summary** Once the Validation is passed, click **OK**.



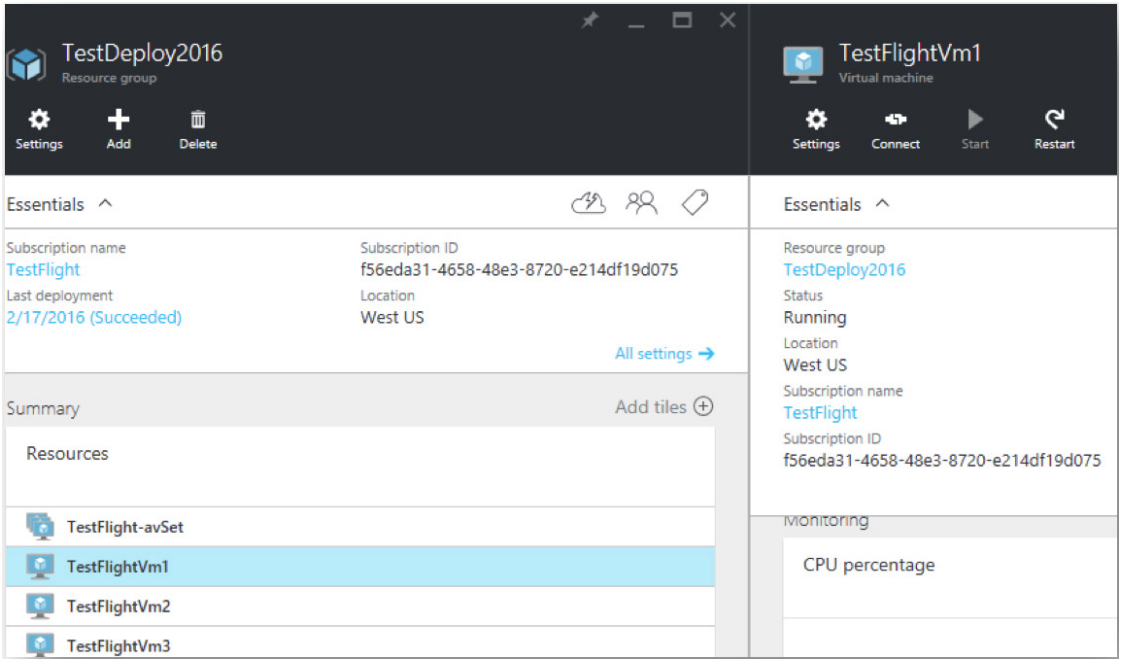
14. **Template Deployment**. *Once* you click **Create**, the Trial is being deployed.



While the Trial is being prepared (less than 2 minutes), you will see this screen. Once the Trial is ready, you will be provided your credentials to start up the three VMs.

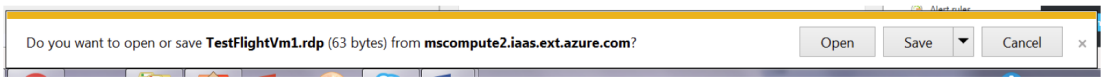


15. **Credentials in the Resource Group.** You will find the VM resources by using the navigation on the left of the screen.

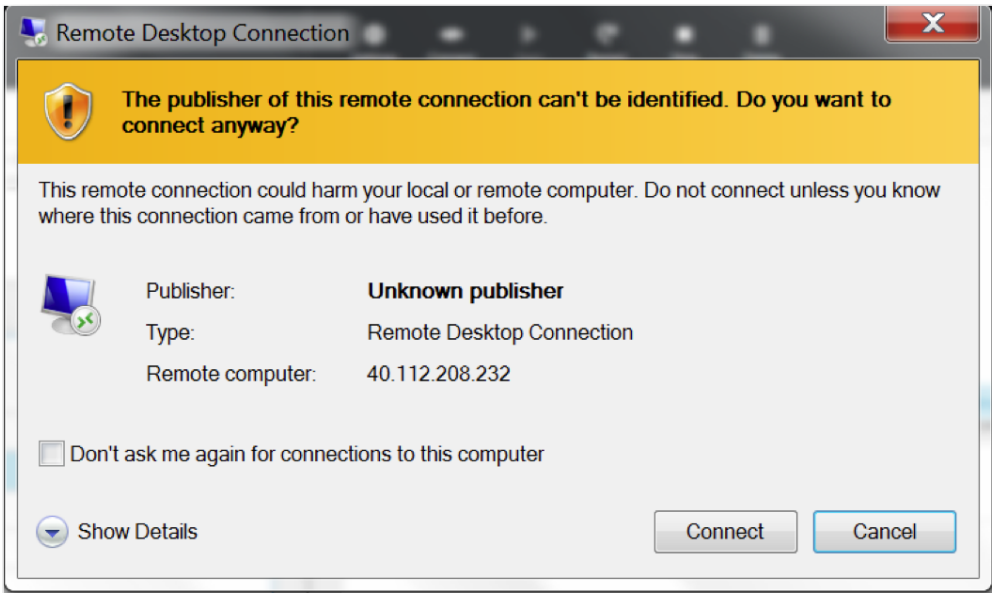


16. Under Resources, locate TestFlightVm1 and highlight it. On the new adjacent pane to the right (TestFlightVm1), click the **Connect** icon at the top of the page.

17. Click **Open** in this dialog box. Opening the .rdp file will initiate VM1.

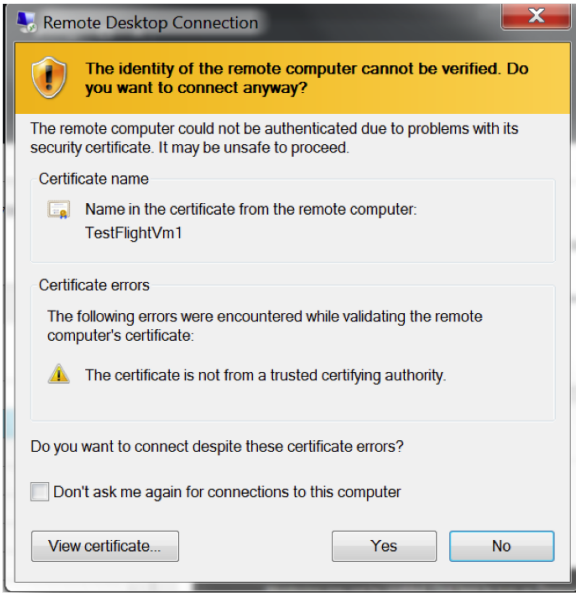


18. In the Remote Desktop Connection box, click the box "Don't ask me again for connections to this computer, and then **Connect**.



19. In the Windows Security pop-up, enter your Admin Password. Make sure that the Admin Username is kuser-root.

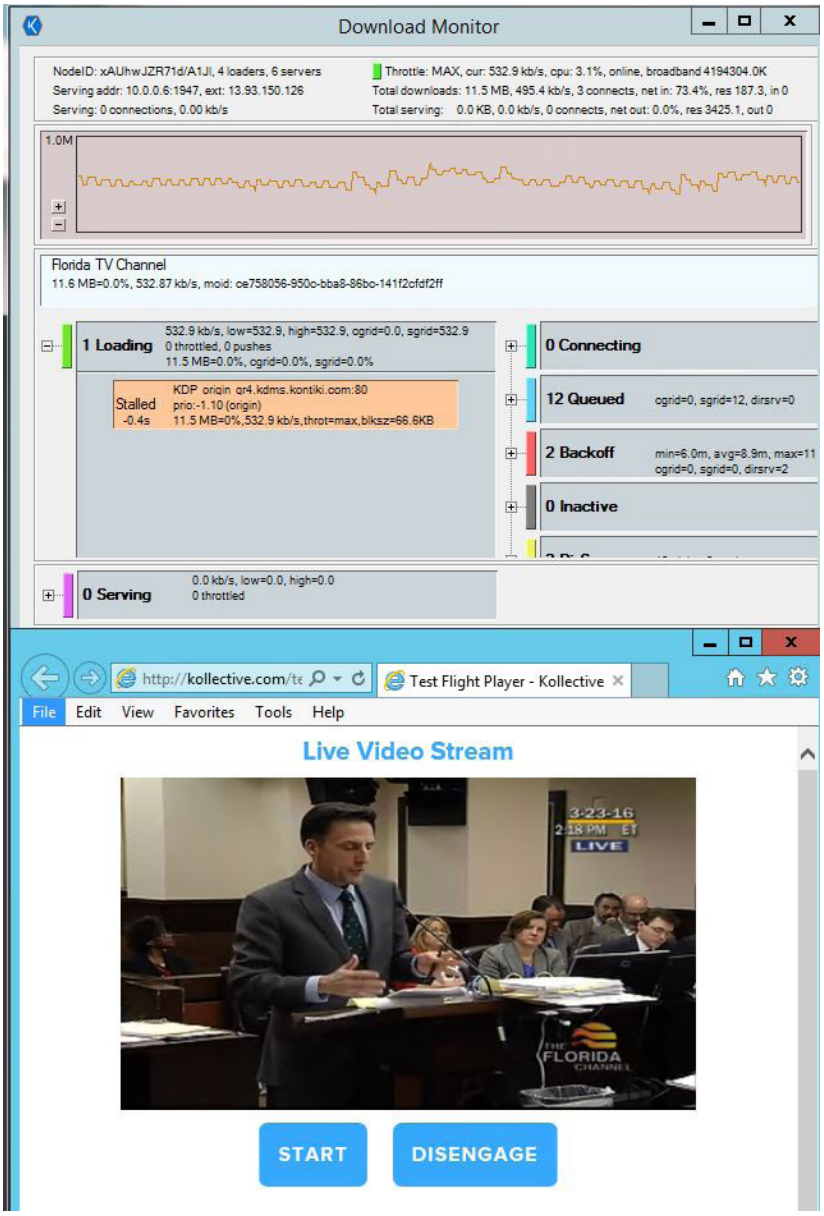
20. Click the box **Don't ask me again for connections to this computer**, and then **YES** on the Certificate page.



The first time you connect to each VM, it could take approximately 30 seconds for the new windows desktop to get prepared. When you have successfully logged on to VM#1, the video player page and the Download Monitor should appear left aligned on the RDP Desktop.

The video player begins streaming automatically.

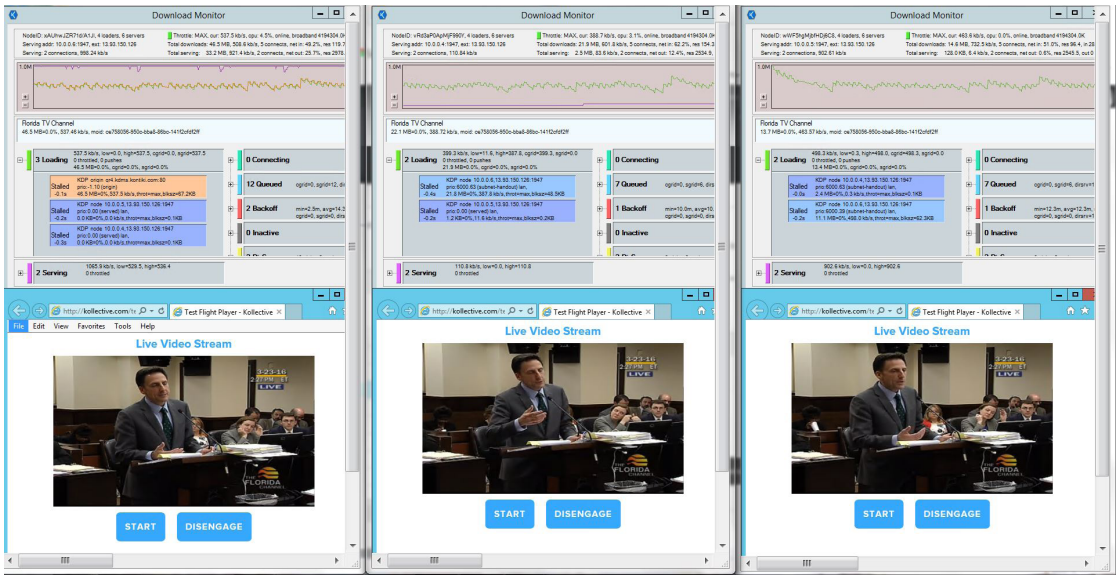
21. Resize the Desktop to fit the Download Monitor and video player.



After a few seconds, the live feed begins, and the peering action begins in the Download Monitor. Displayed in the orange or pink box, the first Virtual machine has requested the live video stream and is now the KDP origin server.

22. Return to the Resource Group page, and repeat step 12 to setup VM #2 and VM#3. Note that the 3 VMs will all be left aligned and stacked on top of each other.

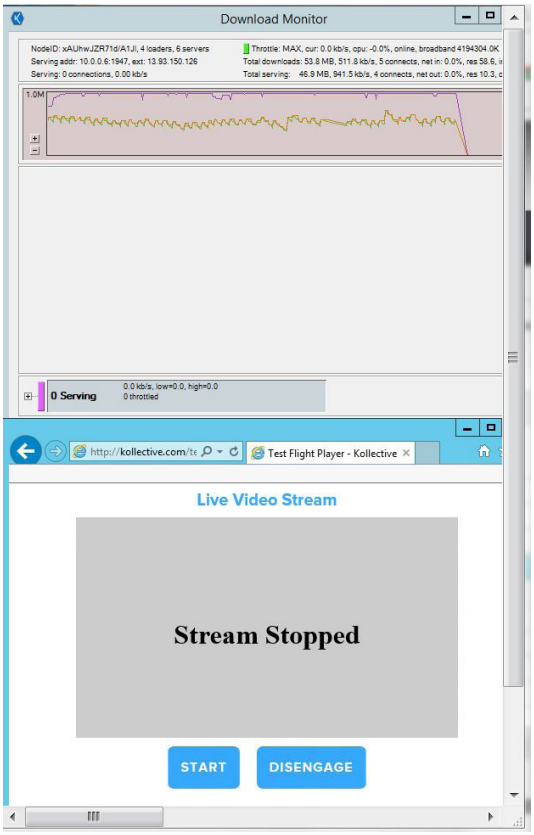
23. After you have logged on to all three Virtual Machines, arrange them so that the three VM windows can be viewed simultaneously.



24. The first VM that you log into that should become the “KDP origin server”, or LAN Leader (look to the orange or pink box on the Download Monitor).

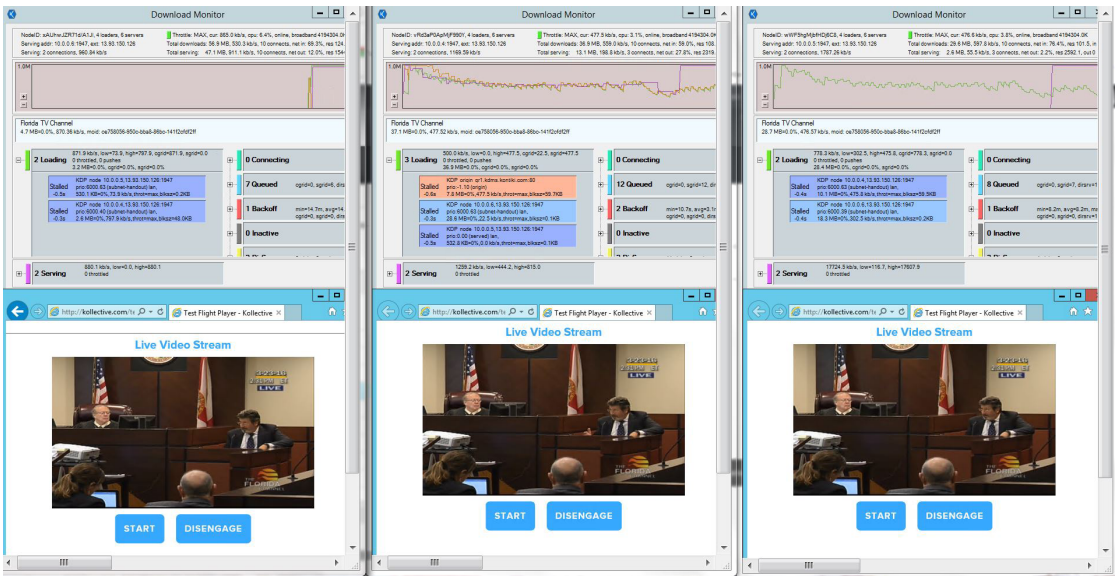
25. Examine VM #2 and VM #3 and confirm that they are being served content and are not origin servers. This is indicated by a blue, purple or green colored box.

26. Now stop the video by clicking Disengage on VM #1 and observe the change to VM #1.



27. The video will stop. Once it stops, the orange box in VM#1 disappears and it is no longer the origin server. Go to the live video stream and click Start, then Click the play button.

28. Look to VM #2 and VM #3 and determine which one has the orange box – this one has become the LAN Leader – or origin server. VM #1 is now receiving content, not sourcing.



29. To force a LAN Leader change again, repeat the process, and see which VM is now selected.

Signing out of the Test Flight Trial

Signing out of each VM ensures that the trial software stops running and that no video streams are left running. If a video stream is left running, then network resources would continue to be used.

On each VM, follow these steps:

30. Maximize the VM to be able to see the whole desktop.

31. Locate the Windows desktop icon in the bottom left corner and click on it.

32. Locate the user in the top right corner (default is kuser-root), and click Sign out.

33. Repeat the process for each VM.

Thanks for participating in our SD ECDN Self-Service Trial.

Summary

You have seen that the determination of which agent is serving the content, and how the content gets served happens automatically. If you wish to see more after seeing the Video Delivery Network Trial, we encourage you to contact Kollective and request a PoC (Proof of Concept) which we will help you install on your own network. Many of our prospective customers run PoCs in their UAT (User Acceptance Testing) labs, helping them experience the magic of the Kollective delivery system first hand. Contact sales@kollective.com for more information.

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