F5 Friday: Connecting Clouds as Easy as 1-2-3

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#cloud #AWS F5 Cloud Connector iApp makes a hybrid cloud based on Amazon AWS a snap

Hybrid cloud models continue to outpace pure-public (and pure-private) models for most organizations. There's value in being able to leverage the cloud for a variety of reasons from periodic, expanding compute resources to dev and test environments. Whatever the reason, hybrid models are here to stay.

One of the difficulties experienced in executing on such models, however, is connecting them to the corporate cloud or data center. Sure, the model is simple: simply deploy resources in the public cloud and leverage them as expandable compute from the private cloud/data center. But to do that requires a way to leverage them. You need to connect them together in such a way as to make those externally deployed resources appear to be part of the data center.

That's where cloud bridges come in handy. Cloud bridges, as we've previously defined, integrate environments at the network layer – extending the operational domain into remote environments such as public cloud. Bridges are the "connective tissue" that is the basis for a hybrid cloud.

Configuring them, however, remains a challenge. There's core networking and security that must be defined and governed, routes determined, and monitoring enabled. Then there's the task of making sure remote resources are accessible, that they're also monitored and can be used as part of an elastic application scalability model. This is the "on-demand capacity" or "cloud bursting" model cited by Gartner DC attendees as the most compelling use-case for hybrid cloud.

It isn't easy.

One of the ways F5 is dedicated to making such tasks easier,

> **Lack of Agility in Infrastructure and Network Services** According to a Forrester Group study, traditional networking is one of the greatest barriers to datacenter flexibility. Network operations still require manual, device-by-device provisioning.

however, is through its iApp technology. iApps capture core common configuration, enable simple wizard-like entry of deployment-specific parameters, and handle the chore of getting all that information turned into a working configuration for a wide variety of operational tasks associated with application delivery.
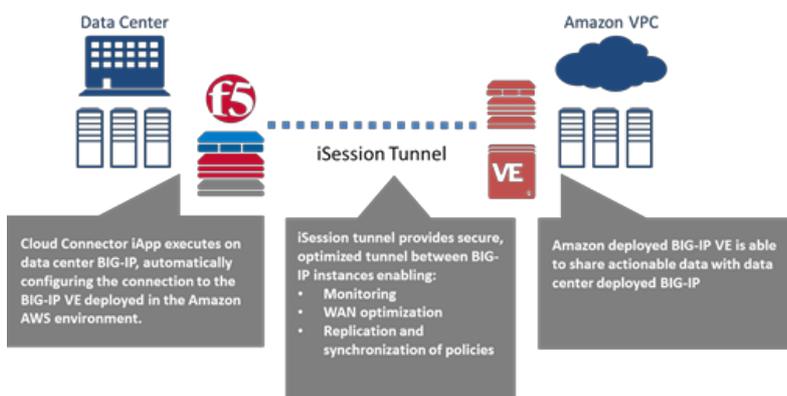
In this case, the iApp in question is focused on connecting clouds.

The Cloud Connector iApp

The Cloud Connector iApp was developed specifically to support a hybrid cloud model for Amazon AWS (VPC) environments. It was developed in conjunction with F5's latest virtualized ADN offering, BIG-IP for AWS, and is generally available Dec 15.

The Cloud Connector iApp performs different tasks depending on what it is configuring. When it is in remote mode (i.e. in the Amazon AWS VPC) it sets up all networking (VLANs, Self-IPs, routes, and a WOM endpoint) for a remote data center (a single-tenant BIG-IP LTM VE).

In local (or data center) mode, the iApp configures WAN optimization and the WOM iSession as well as WOM virtual sessions in the local data center where networking is already configured.

There are also Device and Traffic Group options for the application being configured. This is part of the Device Management configuration, and extends the existing high availability infrastructure and allows for clustering, granular control of configuration synchronization and failover.

It is this capability that provides for operational consistency between environments, ensuring that configuration on both BIG-IP LTM instances are applying the same policies. This synchronization can be tailored to only synchronize specific aspects. This allows for differences that provide value and enhance delivery, such as fine-tuning acceleration or TCP-related options to fit the environment.

You can download the new iApp here on DevCentral (may require login or free registration) in the F5 Contributed iApp Templates section under "Cloud Connector".

Simply download the iApp to a location accessible from your BIG-IP system, extract the zip file, and import via your BIG-IP system web-based configuration utility.

Detailed instructions:

- Download and import the iApp
  1. Open a web browser and enter the following URL (you may be required to login or complete a free registration):
  2. In the F5 Contributed iApp Templates section, click Cloud Connector.
  3. Download the Cloud Connector iApp to a location accessible from your BIG-IP system.
  4. Extract (unzip) the Cloud Connector zip file.
- Import into the BIG-IP system
  1. Log on to the BIG-IP system web-based Configuration utility, and then perform the following:
     1. On the Main tab, expand iApp, and then click Templates.
     2. Click the Import button on the right side of the screen.
     3. Click the Browse button, and then browse to the location you saved the iApp file.
     4. Click the Upload button.
     5. Perform step 6 on the other BIG-IP system.

The iApp is now available for use.

Happy Cloud Bursting!