Device Packages: Integrating F5 Synthesis with Cisco APIC

Lori MacVittie, 2014-19-05

#ACI #SDAS #devops #SDN Because something's got to change - and change radically.

According to a recent IDC report, OPEX costs are doubling every eight years. Important to consider is this data is based on historical trends, and doesn't necessarily take into consideration the forthcoming explosions in applications and data resulting from technological shifts like the Internet of Things.

Even so, it's no wonder that almost every study done on IT budgets pegs operating expenses - the "keep the lights on and apps running" kind of operating expenses - at upwards of 70% of the total budget.

Something, obviously, has to change - and change radically.

Cloud, devops and SDN all point organizations in the same direction - operationalization through automation, orchestration and ultimately, integration via open, standards-based APIs and protocols.

That's ultimately the goal of Cisco's Application Centric Infrastructure (ACI) strategy, which seeks to address the challenges in scaling networks and services not only from a technology perspective, but from a people perspective. Part of the reason for the significant chunk of IT budgets that is spent on operations comes from the reality that configuration - the state of the network - is spread across tens and hundreds and sometimes thousands of myriad network devices. From layer 2 to layer 7, organizations use a veritable cornucopia of network and application services to keep the business running by delivering the applications upon which business relies.

Deploying an application can take days or weeks because of the coordination required across not just the devices themselves (and whether virtual or physical makes no never mind as configuration is agnostic with respect to form factor) but across what are increasingly siloed IT teams: operations, security and networking.

Cisco's ACI aims to reduce the friction that slows down service deployment by centralizing policy control and coordination and automating provisioning and configuration of services across the entire L2-7 landscape.

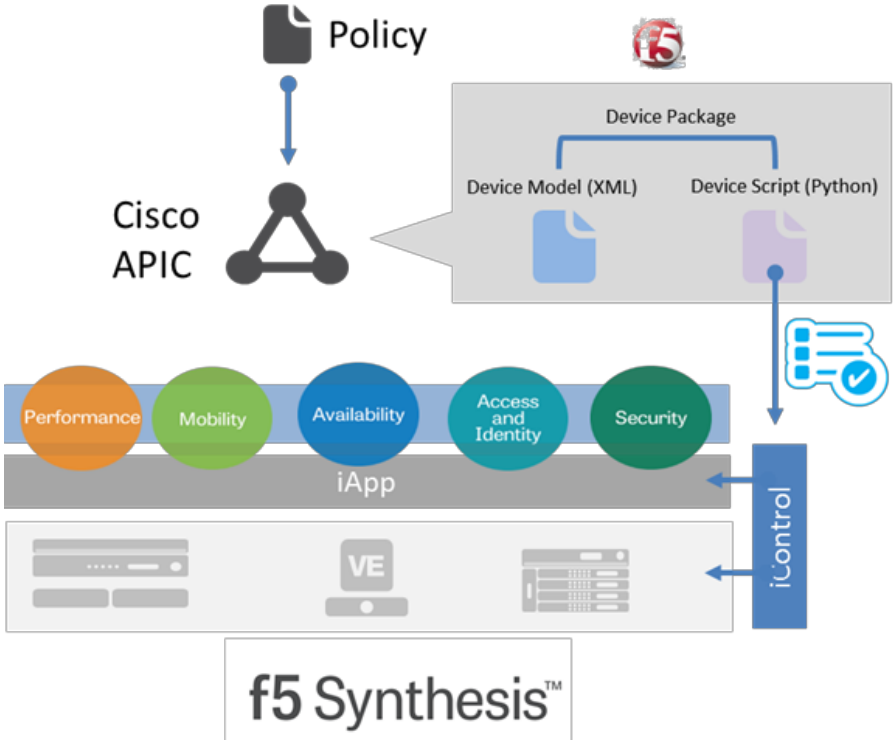
Yeah, that's a pretty big ask.

But Cisco isn't planning on doing it alone.

IT TAKES an ECOSYSTEM

The centerpiece of Cisco's ACI strategy, APIC, provides the means by which all the various L2-7 services in the data center can be easily integrated with virtually no disruption to existing service architectures. It manages this feat by enabling providers of those services, like F5, to develop a device package (similar to a plug-in) to an open specification that APIC can consume and use to communicate and coordinate application-specific policies.

A device package is two pieces: the device model (an XML file) and a device script (written in Python). The device model describes in a standardized, APIC-consumable format what functions are available in the device script. Then APIC can call on those functions to provision the services specified by the open source policy and the device script in turn communicates with the provider of those services using whatever mechanism they choose. In the case of F5 Synthesis, that's our open, standards-based API iControl.



Today, what we've announced, is an F5 device package for the Cisco Application Policy Infrastructure Controller (APIC). Initially the device package supports three services:

1. L4-7 load balancing

2. SSL offload

3. SharePoint Deployments

The SharePoint deployment is unique because in addition to the standard use of iControl to provision the service, customers get the expertise that comes with thousands of SharePoint deployments all bundled up into a nice neat programmable iApp. That means best practices for a highly optimized SharePoint deployment are packaged up and provisioned through Cisco APIC.

The device package model is extensible, so services in the F5 Software Defined Application Services portfolio can be easily added to a Cisco ACI architecture in the future.

COEXIST

The magnitude of the tectonic shifts in technology today has never been this disruptive (just count the number of #hashtags we've got going on Twitter these days) since the dot com days. And now we've got both our web-scale architectures to worry about while we try to prepare for the coming hyper-scale architectures. But we can't abandon ship and start anew, we've got to maintain what we have while we go forth and conquer. That means architectures that can bridge the gap between the existing and the new, that can insulate applications from the massive disruption that comes whenever anything substantially changes the way we build and manage the foundation of both IT and business today: the network.

F5 Synthesis is that bridge. It's the abstraction layer capable of delivering yesterday's applications while enabling tomorrow's. By integrating with Cisco ACI, F5 Synthesis allows customers to operationalize the entire network and start migrating to the policy-based, application-driven network architectures so necessary to succeed in an app and "thing" economy without compromising on security, performance or availability of both existing and new applications.

The F5 Device Package for Cisco APIC will be available as a free download via downloads.f5.com in summer 2014.

*Budget statistic http://www.computerworld.com/s/article/9243312/How_to_balance_maintenance_and_IT_innovation

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