



## Cisco ACI and F5 Integration

# Operationalizing the Network with Cisco ACI and F5

To meet financial objectives and increase shareholder value, business leaders must drive greater speed and innovation throughout the organization. Today's IT infrastructure is complex and often manually provisioned, making it costly and time-consuming to deploy and manage applications. To deliver greater service agility and scale, more predictable IT spending, and increased customer satisfaction—all within the existing IT cost structure—IT departments must transform their data centers. However, this transformation cannot compromise application security, availability, or performance. Together, Cisco Application Centric Infrastructure (ACI) and F5 Synthesis™ offer a new data center architecture founded on an automated, policy-based, and fabric-based approach that operationalizes the network and accelerates application deployment.

## Competing in a Demanding Environment

Today's IT departments must deliver applications where, when, and how they are needed for customers and employees alike. But the existing data center infrastructure is a heterogeneous mix of physical and virtual devices with a device-centric management approach, and its operation is manual, repetitive, and time-consuming. IT departments are not set up to deploy applications quickly, scale them effectively, and maintain required service levels. For the business owner, this means that time-to-service for applications is too long, operating costs are too high, and customer satisfaction is at risk. Meanwhile, ROI and service profitability often fall short of business expectations.

Transforming the existing data center infrastructure requires automation and orchestration, but these strategies bring their own challenges, such as the need to operationalize the network while maintaining the high availability and predictable performance of existing applications. Evolving the data center from a traditional, web-scale-focused architecture to an operationalized, hyper-scale-capable architecture requires a new approach. This approach must support the integration and orchestration of network and application services, while preserving existing support and investments for traditional and web-scale applications.

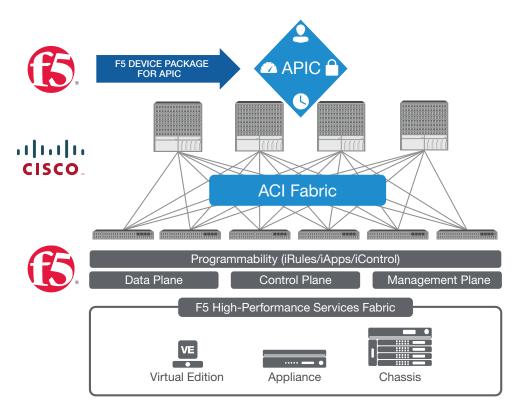
# A Unified Solution

Cisco and F5 have introduced an integrated solution to transform the current data center and address these business challenges. Cisco ACI is a data center architecture with an integrated network fabric and centralized policy-based control, which delivers software flexibility, rapid and automated provisioning, and scalability and performance. Cisco ACI enables the rapid deployment of applications onto networks with scalability, security, and full visibility. F5 Synthesis is an architecture that delivers and orchestrates F5's Software-Defined Application Services<sup>™</sup> (SDAS) via a high-performance application fabric. Together, the F5 and Cisco technologies offer a complementary and unified network and application fabric with an application-centric and open approach to operationalizing the network.

Cisco and F5 are focused on the intelligent delivery of applications and services in all types of environments. The key point of integration for F5 Synthesis within Cisco ACI is F5's Device Package for the Cisco Application Policy Infrastructure Controller (APIC); this makes it easy for customers

to combine F5's L4–L7 application fabric with Cisco's L2–L3 network fabric. A downloadable, easy-to-install piece of software, the F5 Device Package provides a uniquely application-centric use case structure—rather than a feature-driven template—that results in a single workflow for policy configurations and provisioning. This approach enables unmatched simplicity and automation for the insertion of L4–L7 application services into Cisco ACI application deployments, and it can reduce operational costs. The F5 Device Package also seamlessly incorporates F5's iApps® templates and iRules® policies so customers can leverage existing investments and customizations of F5 application services. Finally, the F5 Device Package delivers real-time health scores on Cisco APIC so customers can easily monitor application resources and reduce downtime and poor performance.

This joint F5 and Cisco solution simplifies and automates end-to-end application delivery across an integrated and elastic fabric for existing and next-generation data centers, and it provides applications with the speed, reliability, and security that today's business environment demands.



#### F5 Synthesis integration with Cisco ACI through the Device Package

### Efficiently deploy fast, secure, and available applications

The joint solution extends the F5 architecture and programmable F5 Software-Defined Application Services into Cisco's ACI through a downloadable, easy-to-install integration package, helping you efficiently deploy fast, secure, and available applications within the APIC management console. This preserves the richness of SDAS within an ACI-enabled fabric through policy abstraction, which defines a common operational model through open APIs. This means customers can seamlessly integrate existing F5<sup>®</sup> BIG-IP<sup>®</sup>-based topologies with Cisco ACI protecting existing application and architectural investments while operationalizing the network. F5's unified and extensible platform, which includes the broadest set of application services on the market, helps you simplify the fabric architecture and quickly apply application services.

## Reduce operating expenses while maintaining operation best practices

Using the industry-leading F5 ScaleN<sup>™</sup> architecture, joint customers are uniquely able to deploy multi-tenant solutions in Cisco ACI environments by using route domains and F5 virtual application capabilities. The result is detailed control over resource deployment and prioritization that preserves the ability to isolate services to meet regulatory compliance and business requirements. The combination of multi-tenancy with a policy-based, per-application delivery approach significantly reduces operating costs, because workflow provisioning is more efficient without sacrificing operational best practices.

F5 offers a unique, application-based, and use-case-based design rather than feature-based workflow for provisioning and configuring F5 application delivery services on the Cisco APIC management console for rapid and repeatable orchestration. F5 also provides sophisticated system health monitoring, diagnostics, and reporting that is integrated with the Cisco ACI architecture, which can be used to optimize application performance and availability.

With Cisco ACI and F5, you can overcome your biggest IT agility and cost management challenges, ensuring responsiveness to customers and employees and a more competitive posture. As a result, rather than being a perceived barrier to success, your IT organization can drive innovation and agility to meet business objectives.

To learn more about how the F5 and Cisco partnership can help your business, visit <u>cisco.com/go/aci</u> and <u>f5.com/cisco</u>.

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