

Simplifying your S/Gi Network with a consolidated architecture



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Guest blog post by Misbah Mahmoodi, Product Marketing Manager, Service Providers

Service providers are constantly challenged with ensuring their networks are running at optimal performance, especially as they cope with the increasing usage of mobile data traffic which leads to increased CapEx and OpeEx. At the same time, revenue has not kept pace with increasing data consumption, yielding in declining profitability as total cost of ownership continues to rise. As a result, service providers are looking for solutions that will allow them to scale more efficiently with traffic growth yet limit cost increases and at the same time accelerate revenue growth.

Many of the services which operators use to deliver to their subscribers, such as video optimization, parental control, firewall and Carrier-Grade NAT reside on the S/Gi network, which is the interface between the PGW and the internet. Along with these services, service providers have deployed load-balancing solutions coupled with intelligent traffic steering and dynamic service chaining capabilities to steer traffic to the relevant VAS solutions based on a subscriber-aware and context-aware framework. This ensures, for example, that only subscribers using video are steered to a parental control service to check if the subscriber can watch the video, and subsequently on to a video optimization server, whereas, all other traffic are sent straight on through to the internet.

Typically, service providers have deployed these services using point solutions. As traffic increases, service providers continue to expand these point solutions leading to an increase in the overall network footprint, but also results in an overwhelmingly complex network, making it more difficult to manage as well as increasing risk of network failures due to different vendor solutions being incompatible with each other. Continuing down this path is becoming less viable, and service providers need a solution that not only simplifies their S/Gi Network, but also reduces the total cost of ownership. Service providers need a solution that can consolidate core services onto a single platform, which provides the scalability and capacity to accommodate increases in future mobile broadband traffic and also provides greater subscriber and application visibility and control than a solution using multiple point products leading to increased revenues and profitability.

With a consolidated architecture, service providers can leverage a common hardware and software framework to deliver multiple services. Adding or removing services within this framework is done via licensing, and having a unified framework means that there is common technology to understand and manage, enabling simpler configuration and management of network resources, which significantly simplifies operations and reduces cost. As all the major functionality of the S/Gi network is consolidated on a unified framework, service providers now have the ability to scale performance on demand, or using software based virtualized solutions, provide the ability to create an elastic infrastructure that can efficiently adapt as business needs change.

Recently, F5 has conducted a study with an independent research analyst firm to analyze the total cost of ownership of a consolidated architecture versus point products. Based on this study, it was found that the F5 unified solution has a 36 percent lower TCO than the alternative point products solution and a 53 percent to 88 percent lower TCO with intelligent traffic steering as compared to a solution with no intelligent traffic steering. With F5, service providers have a solution that can optimize, secure and monetize mobile broadband networks and provide a unified platform that simplifies the network, yielding improved efficiency, lower costs, and secure service delivery.

F5 Networks, Inc. | 401 Elliot Avenue West, Seattle, WA 98119 | 888-882-4447 | f5.com

F5 Networks, Inc.
Corporate Headquarters
info@f5.com

F5 Networks
Asia-Pacific
apacinfo@f5.com

F5 Networks Ltd.
Europe/Middle-East/Africa
emeainfo@f5.com

F5 Networks
Japan K.K.
f5j-info@f5.com