Distributing video to mobile devices, along with the need to ensure that appropriate content is delivered to the correct device, can be a challenging endeavor. BIG-IP® devices facilitate mobile content delivery by managing user and device access to the content servers.

Policy-Based Video Distribution

With the advent of intelligent mobile devices and smart phones, mobile users demand a higher level of rich content—and more of it—over wired and wireless broadband connections. Service providers are meeting this demand by providing more content options while also having to manage content from “over-the-top” providers such as YouTube and Netflix. For most users, the service provider network delivering this content is transparent; the content is simply provided by the user’s provider of choice. Yet the service provider’s delivery network is the most important part of the user experience.

Service providers often implement policy-based video distribution for content delivery to mobile devices in order to control the user experience and the affect on their own network. Even though the service provider might not own the content or the services hosting the original content, they do own the delivery of that content to the user device. With so many content options available to users and so many mobile device platforms, it becomes extremely complex to manage both the optimized content—what type of content is delivered to which device in the appropriate manner—as well as managing the actual access to the content over the network. F5 offers solutions for service providers that help manage user requests for content and deliver that content over the network.

Access to optimized video distribution services on the carrier network falls into two primary categories: traffic steering and service availability.

Traffic Steering

Traffic steering is the ability to direct user requests to the correct and appropriate content source based upon policies. That content source might be part of the service provider solution—as in video content that is provided to users by the carrier itself—or might come from over the top providers whose content originates outside of the carrier network. The policies on how and where to direct users to content can be based on many things: device type, availability of networking resources on the client side, type and status of customer account, user location, availability of the video service resource, and so on. Traffic steering becomes the policy enforcement point for connecting users to video services.
Service Availability

Service availability is comprised of checking the video service to make sure it is available, providing HA to video services, and offering optimized availability to the content streaming from those services. Like traffic steering, service availability can apply to on-premise services as well as over-the-top services and can operate on a service and content level.

Solution

F5 BIG-IP® service delivery solutions provides service availability and traffic steering through an integrated platform. Acting as the strategic point of control, BIG-IP products natively support traffic steering of all application traffic types, including video services offered by the provider as well as external, over-the-top providers, and in some cases a combination of the two content sources. The BIG-IP controller is able to query the internal policy engine to find the appropriate restrictions and allowances for users and apply that policy directly to the user’s session, any type of external user or application policy at the data delivery point. This then removes the need for additional policy enforcement points throughout the carrier network.

A user request for internal traffic may normally be directed to a private, internal video service under normal conditions, however those user requests might be directed off-site to an external provider as needed. BIG-IP devices implement service availability to determine the best destination for the user requests alongside traffic steering to direct users to the best service.

F5’s Service Delivery Network (SDN)—an architecture designed to manage service delivery to users and device—integrates these two key functions into the same, shared platform. Along with other key service delivery features such as rate shaping, application proxying, and IP/device management, F5 SDN solutions can deliver a unified solution for complete user and device management for carrier video services.

Learn more

For more information about BIG-IP service delivery solutions, video traffic steering, and service availability solutions, please see the following resources or use the search function on F5.com.

Product pages
BIG-IP Local Traffic Manager
BIG-IP Feature Modules

White paper
IMS Ready, and Raring to Go!