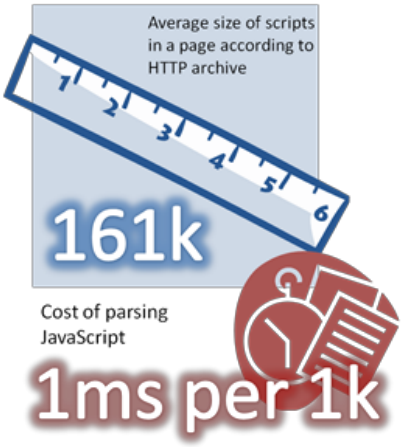
F5 Friday: F5 Application Delivery Optimization (ADO)

Lori MacVittie, 2012-25-05

#ado #fasterapp #webperf The “all of the above” approach to improving application performance

A few weeks ago (at Interop 2012 to be exact) F5 announced its latest solution designed to improve application performance. One facet of this “all of the above” approach is a SPDY gateway. Because of the nature of SPDY and the need for a gateway-based architectural approach to adoption, this piece of the announcement became a focal point. But lest you think the entire announcement (and F5’s entire strategy) revolves around SPDY, let’s take a moment to consider the overall solution.

F5 ADO is a comprehensive approach to optimizing application delivery, i.e. it makes apps go faster. It accomplishes this seemingly impossible feat by intelligently applying accelerating technologies and policies at a strategic point of control in the network, the application delivery tier. Because of its location in the architecture, a BIG-IP has holistic visibility; it sees and understands factors on the client, in the network, and in the server infrastructure that are detrimental to application performance. By evaluating each request in the context it was made, BIG-IP can intelligently apply a wide variety of optimization and acceleration techniques that improve performance.



These range from pure client-side (FEO) techniques to more esoteric server-side techniques. Being able to evaluate requests within context means BIG-IP can apply the technology or policy appropriate for that request to address specific pain points or challenges that may impede performance. Some aspects of ADO may seem irrelevant. After all, decreasing the size of a JavaScript by a couple of KB isn’t really going to have all that much impact on transfer times. But it does have a significant impact on the parsing time on the client, which whether we like it or not is one piece of the equation that counts from an end-user perspective, because it directly impacts the time it takes to render a page and be considered “loaded”. So if we can cut that down through **minification** or **front-loading the scripts**, we should – especially when we know clients are on a device with constrained CPU cycles, like most mobile platforms.

But it’s important to recognize when applying technologies might do more harm than good. Clients connecting over the LAN or even via WiFi do not have the same characteristics as those connecting over the Internet or via a mobile network. “Optimization” of any kind that takes longer than it would to just transfer the entire message to the end-user is bad; it makes performance *worse* for clients, which is counter to the intended effect. **Context** allows BIG-IP to know when to apply certain techniques – and when not to apply them – for optimal performance.

By using an “all of the above” approach to optimizing and accelerating delivery of applications, F5 ADO can increase the number of milliseconds shaved off the delivery of applications. It makes the app go faster.

I could go into details about each and every piece of F5 ADO, but that would take thousands of words. Since a picture is worth a thousand words (sometimes more), I’ll just leave you with a diagram and a list of resources you can use to dig deeper into F5 ADO and its benefits to application performance.

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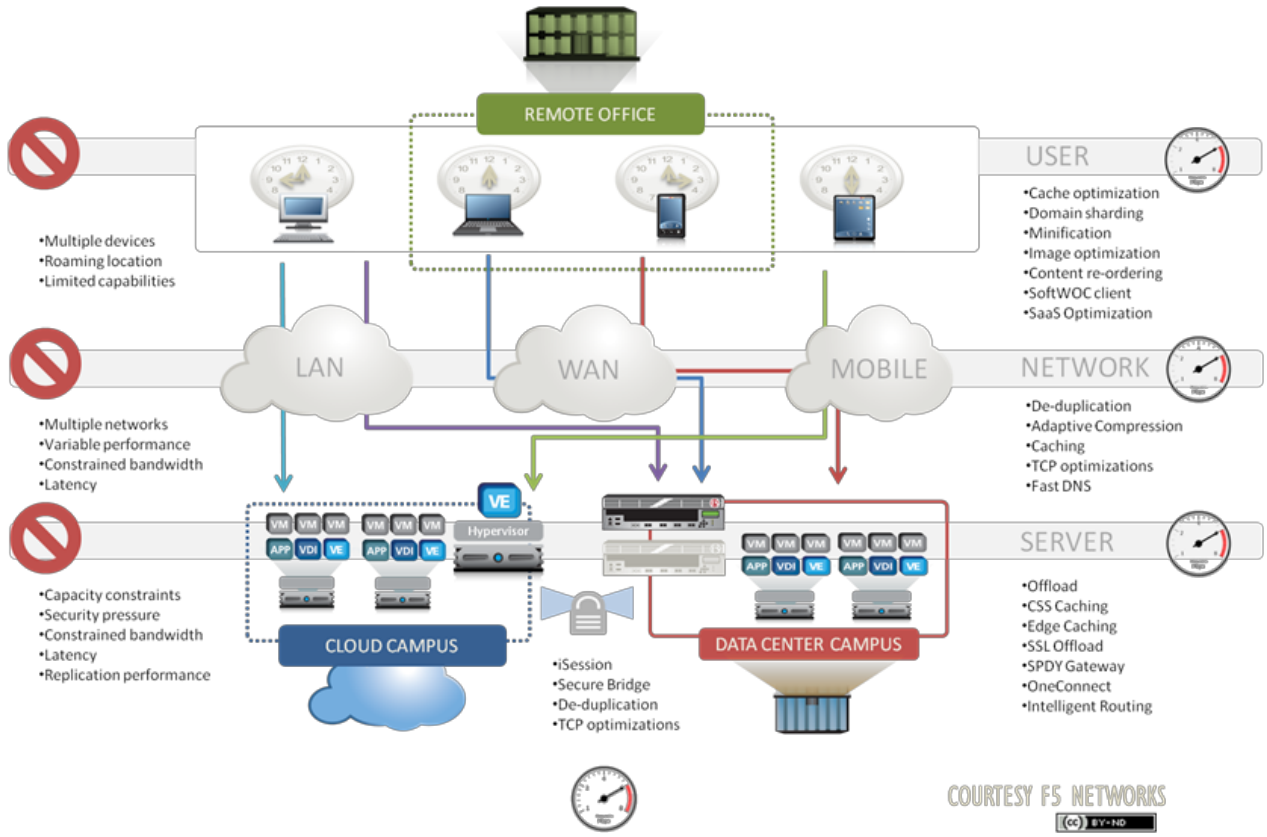
The "all of the above" approach to improving application performance



COURTESY F5 NETWORKS

Resources:

- The “All of the Above” Approach to Improving Application Performance
- Y U No Support SPDY Yet?
- Stripping EXIF From Images as a Security Measure
- F5’s Application Delivery Optimization – SlideShare Presentation
- Application Delivery Optimization – White Paper
- Interop 2012 - Application Delivery Optimization with F5's Lori MacVittie – Video

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- When Big Data Meets Cloud Meets Infrastructure
- F5 Friday: Ops First Rule
- New Communications = Multiplexification
- F5 Friday: Are You Certifiable?
- The HTTP 2.0 War has Just Begun
- Getting Good Grades on your SSL
- WILS: The Many Faces of TCP
- WILS: WPO versus FEO
- The Three Axioms of Application Delivery

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