OTT Traffic and Web Security

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Agenda

Akamai Introduction

- Who's Akamai?
- Intelligent Platform & Traffic Snapshot

OTT Traffic and Akamai Network Solutions

Basic Technology

- Finding the IP address
- Downloading www.example.com

Web Security

Akamai & IPv6 World Launch Day

Akamai Introduction

Akamai Overview

Who is Akamai?

Akamai is a leading provider of a Cloud platform, which delivers, accelerates and secure content and APPLICATIONS over the Internet. Our key differentiator is our highly distributed (intelligent) platform, made up of more than 100,000 servers in 80 countries.

- Public company – symbol AKAM
- Founded: 1998
- Headquarters: Cambridge, MA, USA
- 16+ worldwide offices, including Europe and Asia
- 2,300+ employees worldwide

The Akamai Intelligent Platform

The world's largest on-demand, distributed computing platform delivers all forms of web content and applications

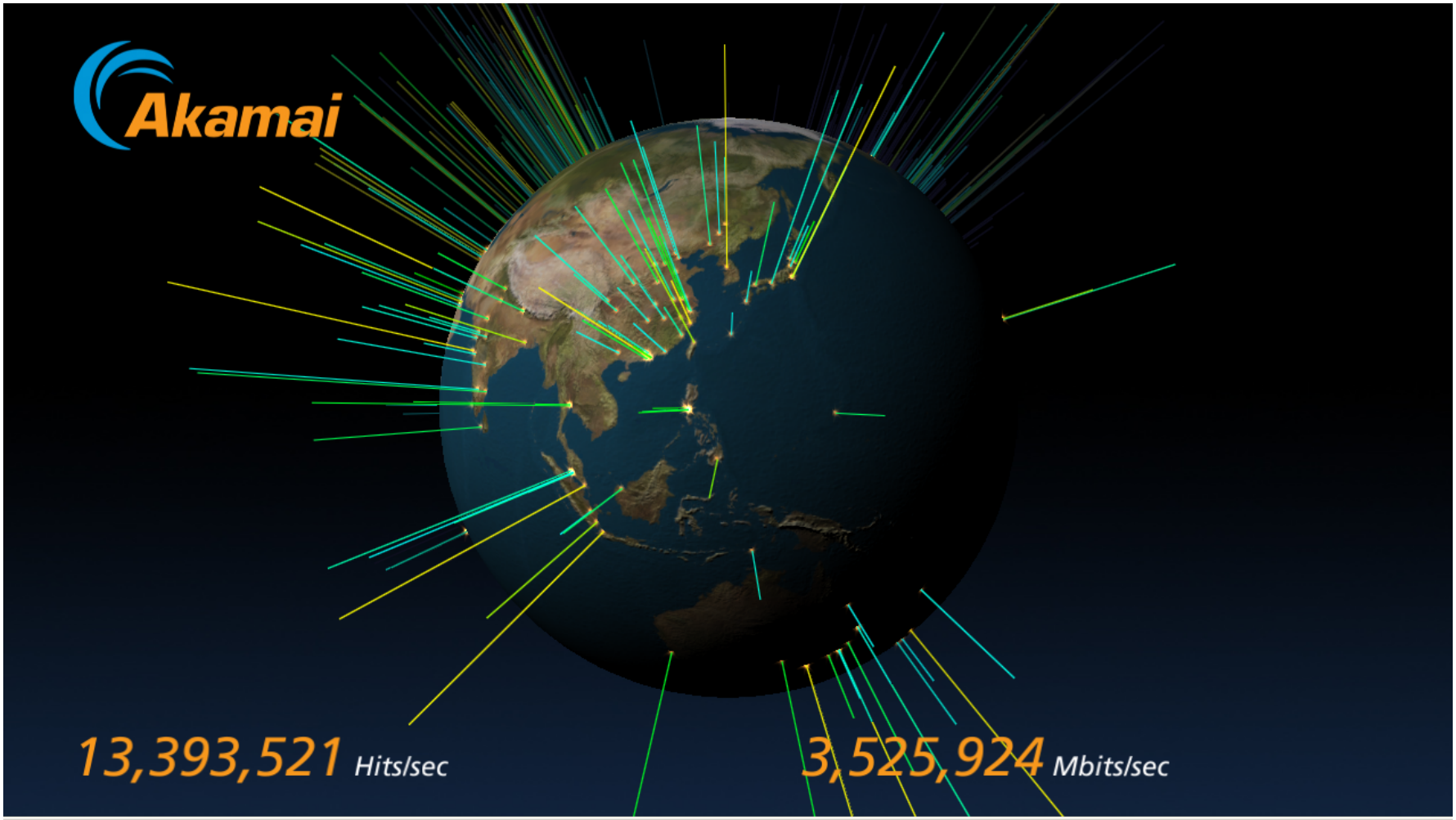
The Akamai Intelligent Platform:

101,890 Servers	1,930 Locations	1,070 Networks	700+ Cities	83 Countries

Typical daily traffic:

- More than **2 trillion** requests served
- Delivering over **10 terabits/second**
- **15-30%** of all daily web traffic

Traffic Snapshot



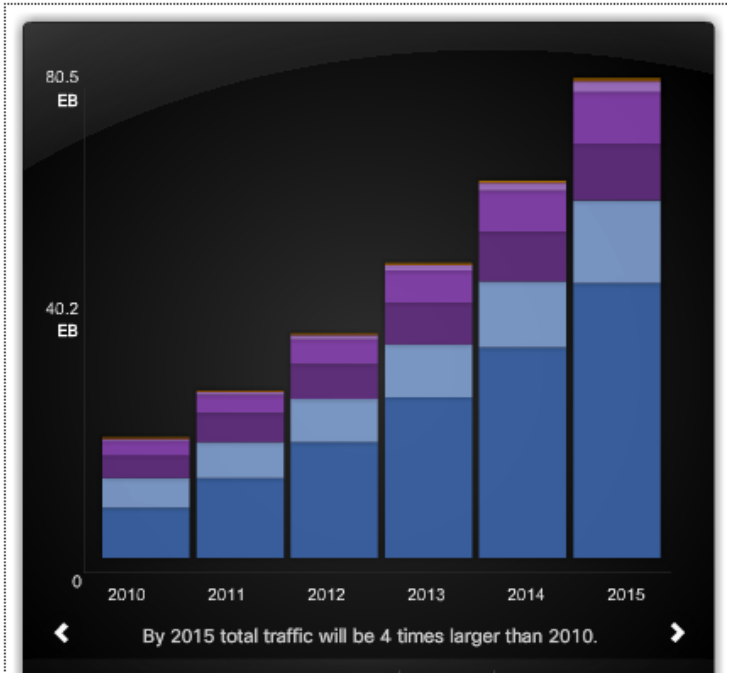
OTT Traffic and Akamai Network Solutions

OTT Traffic

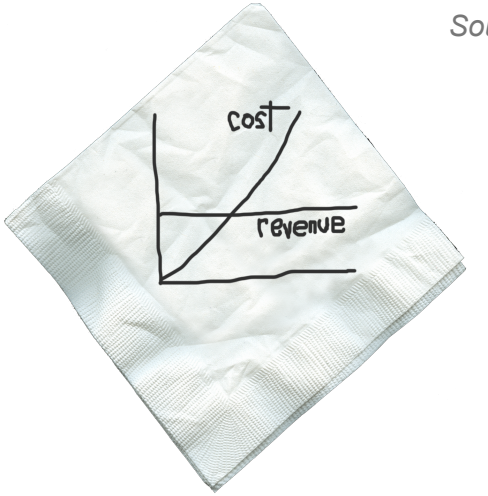
What is Over-the-top content? *[source: streamingmedia.com]*

Over-the-top is an industry term used to describe a video service that you utilize over a network that is not offered by your cable company (example: Hulu). It's often referred to as "over-the-top" because these services ride on top of the service you already get from your ISP and doesn't require any business or technology affiliations with your TV content provider.

Internet Traffic Growth Trends

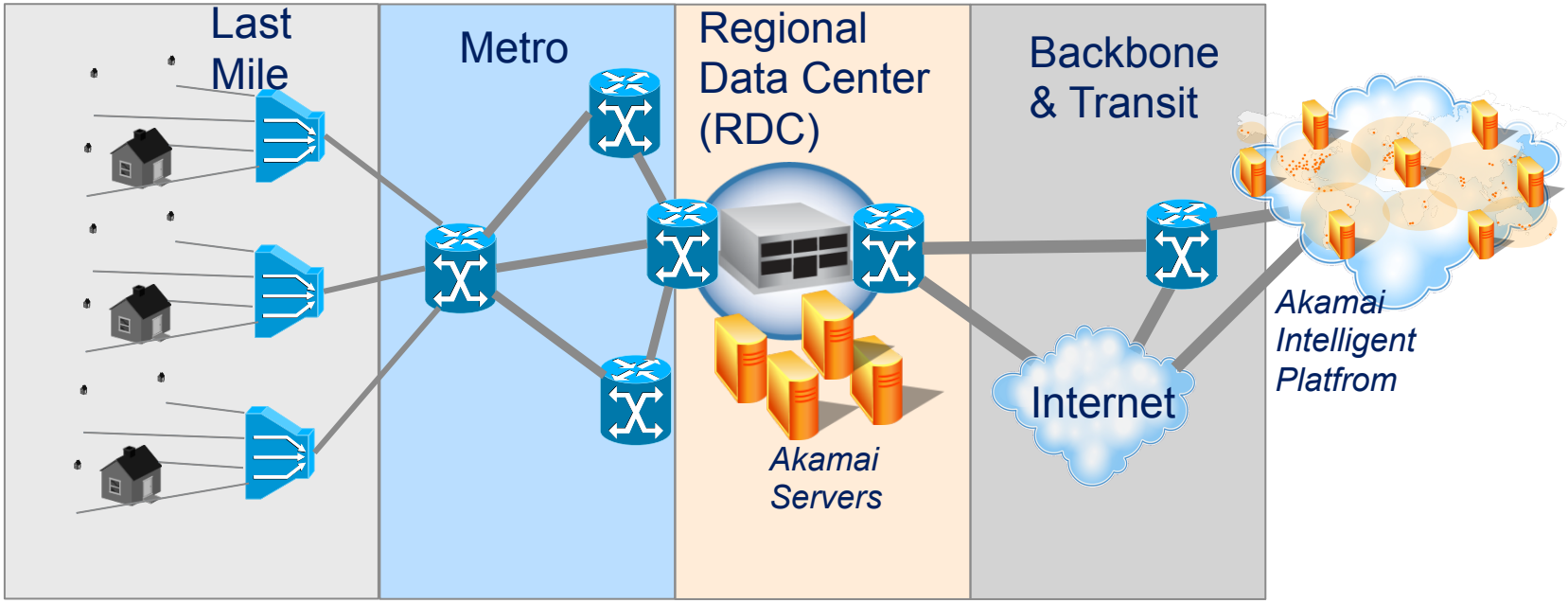


Source: Cisco VNI



- Internet traffic continues to explode driving up network costs
- Internet video continues to dominate traffic growth and costs, Internet video will account for 54% of global consumer traffic by 2015
- Annual global IP traffic will reach 1.3 zettabytes by 2016
- Need a model to fund major network infrastructure upgrades to support subscriber demand

Akamai Accelerated Network Partner (AANP)



- Akamai server infrastructure deployed in an Operator's Data Centers
- Akamai provides all hardware and software and remotely manages the platform
- Offloads traffic from Operator backbone and transit links
- Improves user experience by delivering content closer to subscribers
- Connects to Akamai Global CDN

How You Benefit

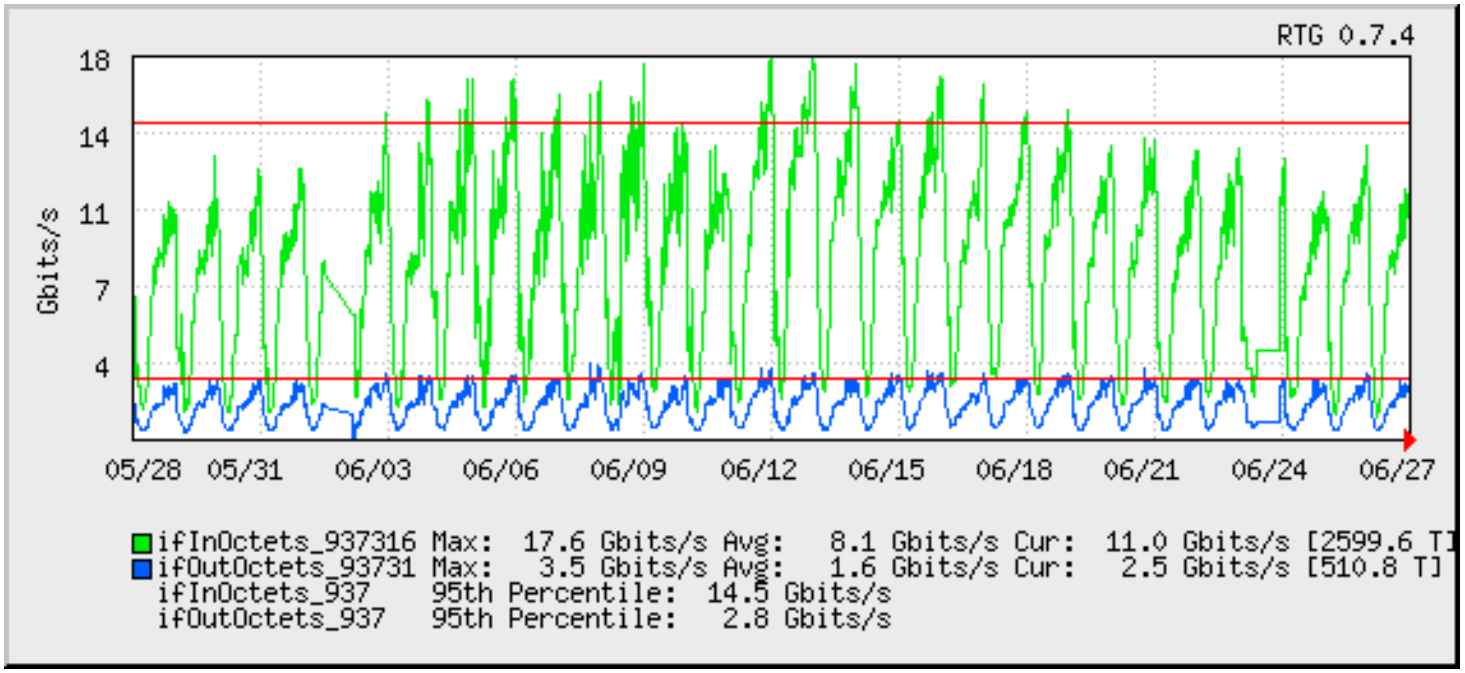
By placing servers inside your network, Akamai enables you to:

- Deliver peak performance for maximum competitive advantage
- Reduce bandwidth expense, offload OTT (Over-the-Top) traffic from backbone, Internet transit and peering capacity
- Ability to control the delivery of Internet video and manage network hot spots accordingly
- Increase subscriber satisfaction, provide a faster end-to-end user experience optimized for rich media content
- Leverage customized network-monitoring tools, take advantage of full technical and marketing support, with 24/7 network support

Akamai provide: hardware, technology, shipping and management
Partner provide: rack space, cache-fill uplink and IP addresses

This is a partership for free, a win-win for both sides!

Typical Inbound – Outbound Ratio



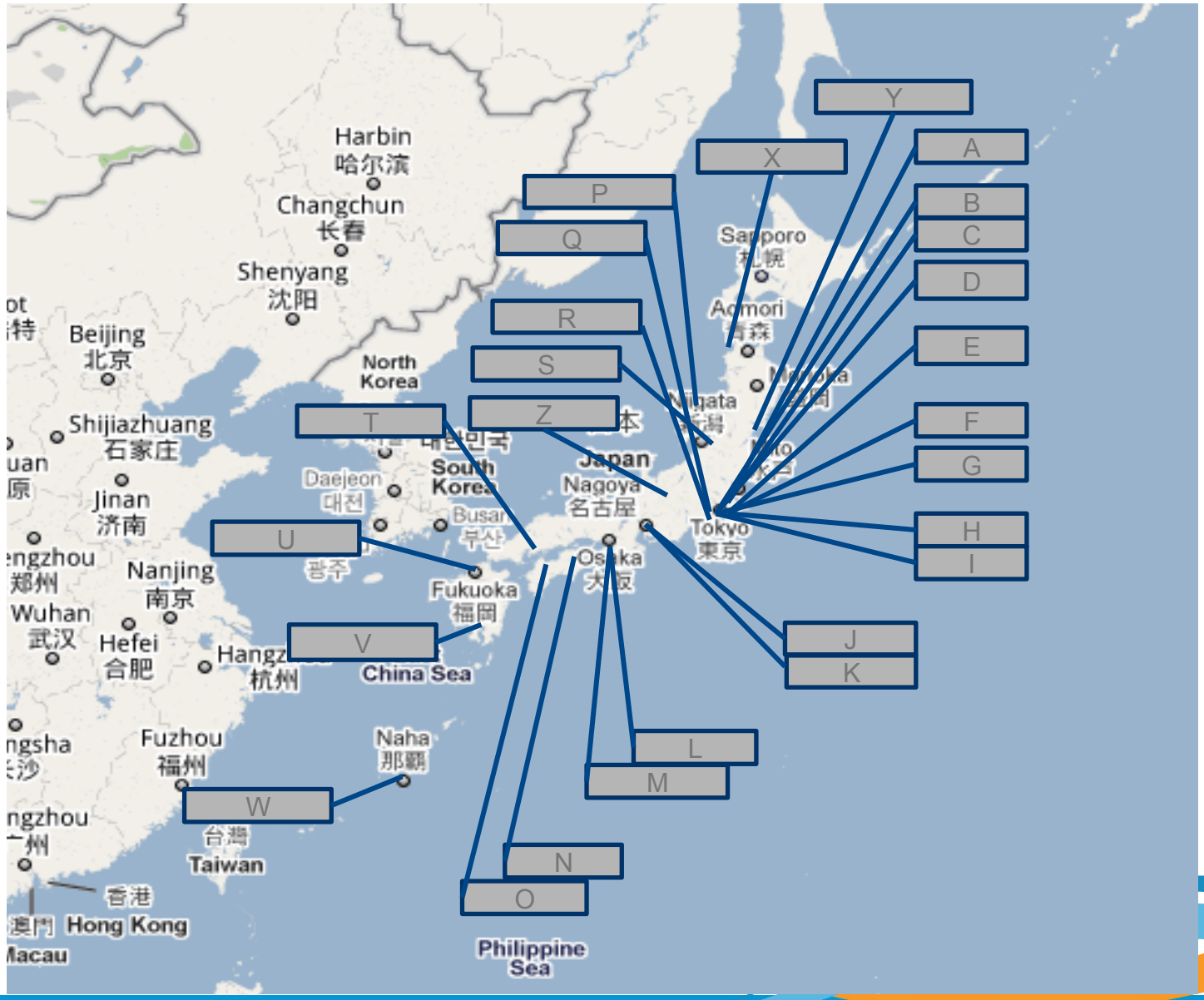
Massively optimized inbound/outbound traffic ratios

Typically the ratio is inbound 2 : 8 outbound (to 1.5 : 8.5)

Inbound: traffic from the origin website server to the Akamai servers

Outbound: traffic from the Akamai servers to your users

Japan AANP Deployment (Jul 2012)



Aura Network Solutions
Operator CDN Services

CDN is increasingly strategic to the network operators

- Manage traffic, lower costs
- New data and video revenue
- Competitive differentiation
- Integrate with Akamai's worldwide intelligent platform

Range of business relationships

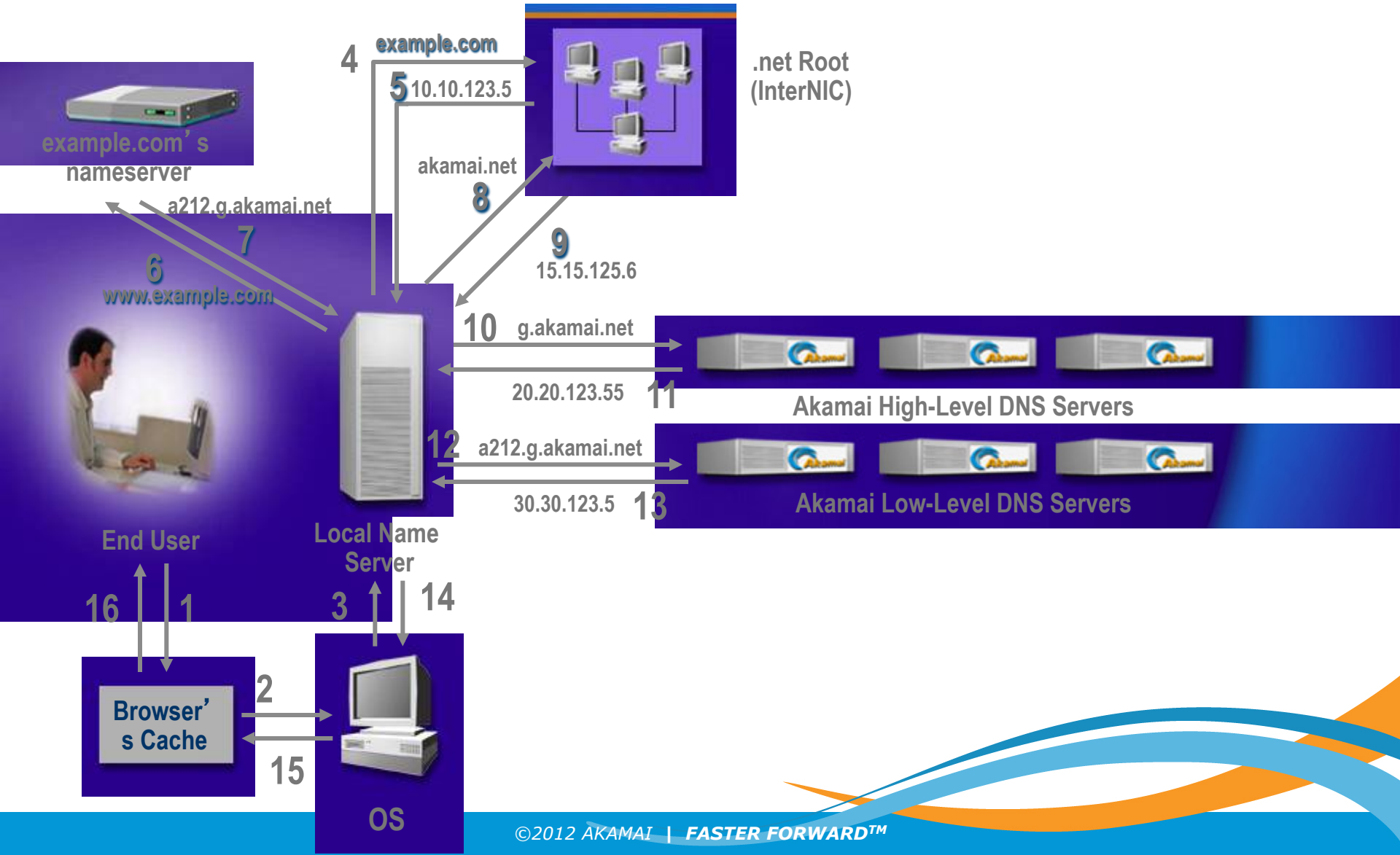
- Both managed & licensed
- Reseller partner

If interested, please contact us for further information!

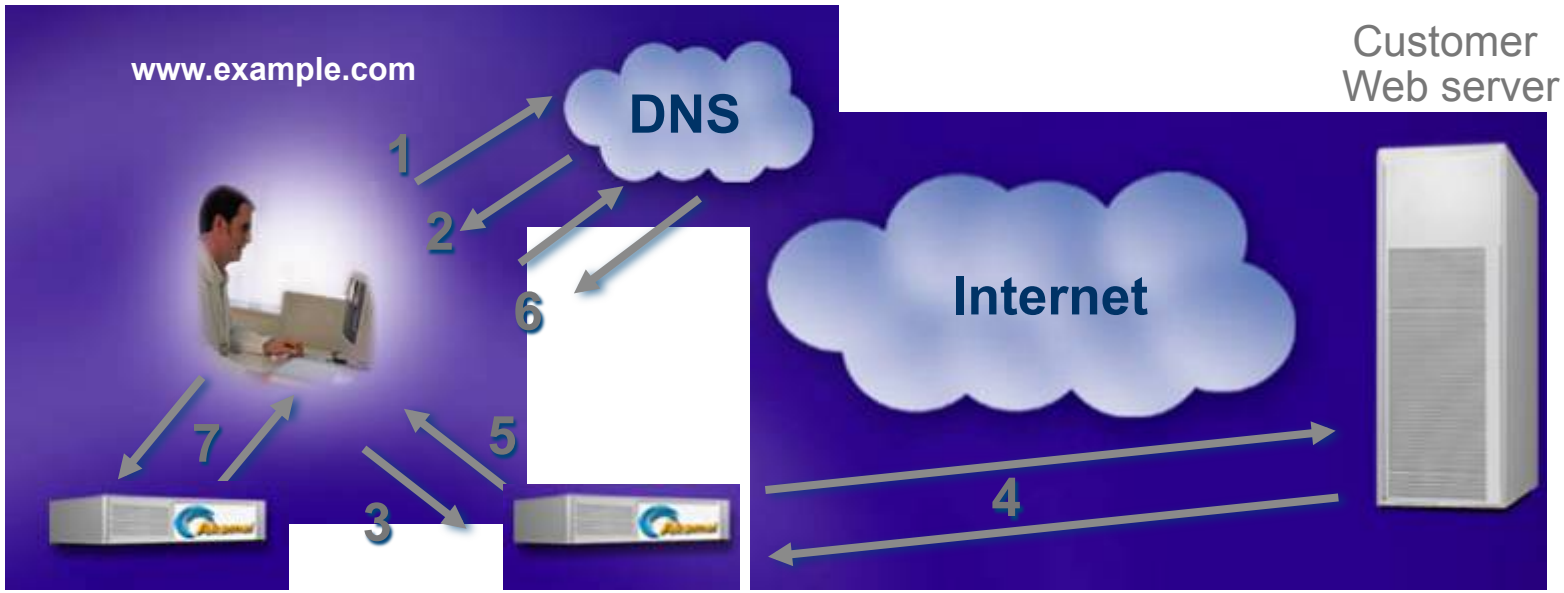
Basic Technology

Akamai mapping

Finding the IP Address: The Akamai Way



Downloading www.example.com with Akamai's EdgeSuite

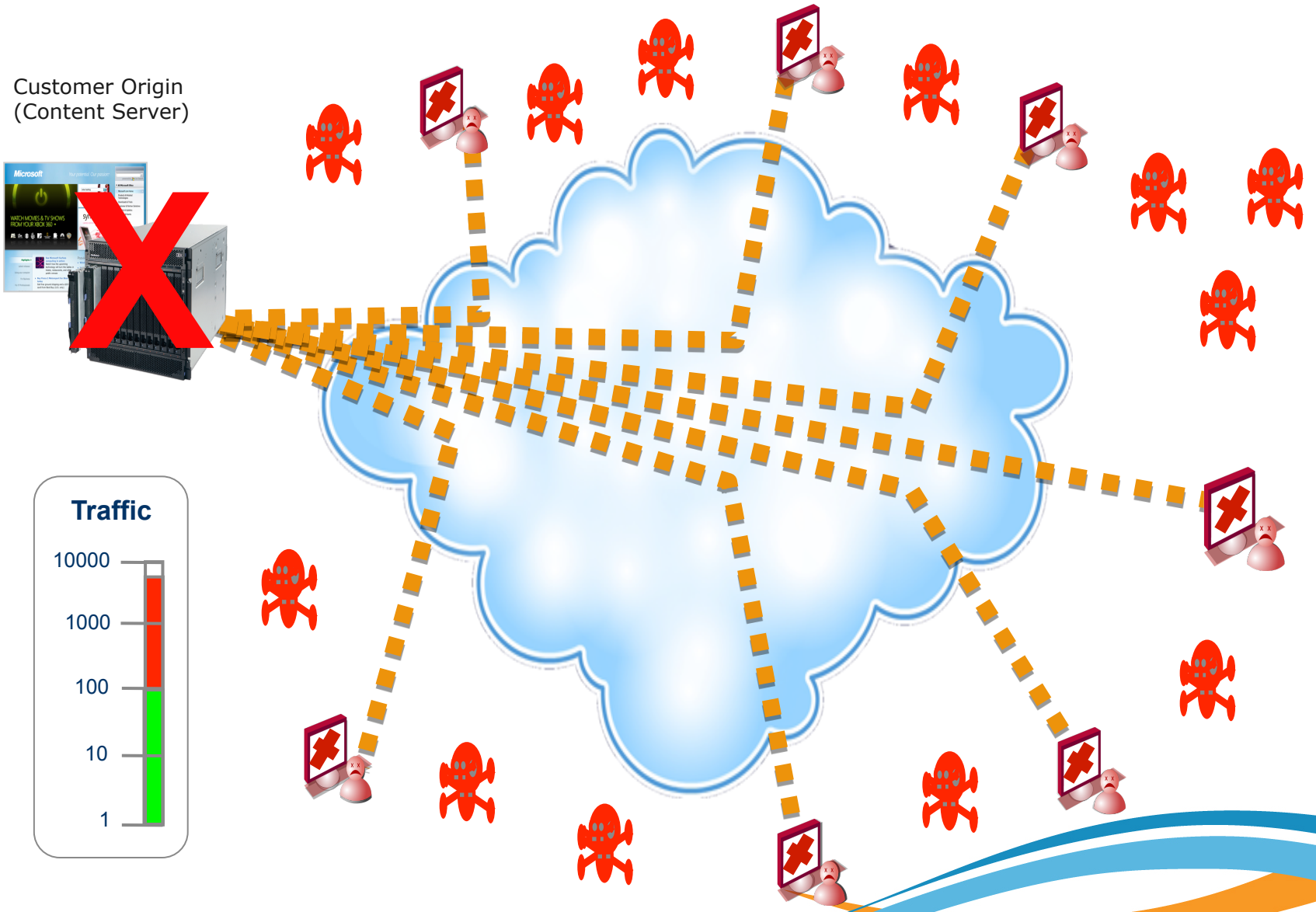


- User enters www.example.com
- 1. Browser requests IP address for www.example.com
- 2. DNS returns IP address of optimal Akamai server
- 3. Browser requests HTML
- 4. Akamai server assembles page, contacting customer Web server if necessary
- 5. Optimal Akamai server returns Akamaized HTML
- 6. Browser obtains IP address of optimal Akamai servers for embedded objects
- 7. Browser obtains objects from optimal Akamai servers

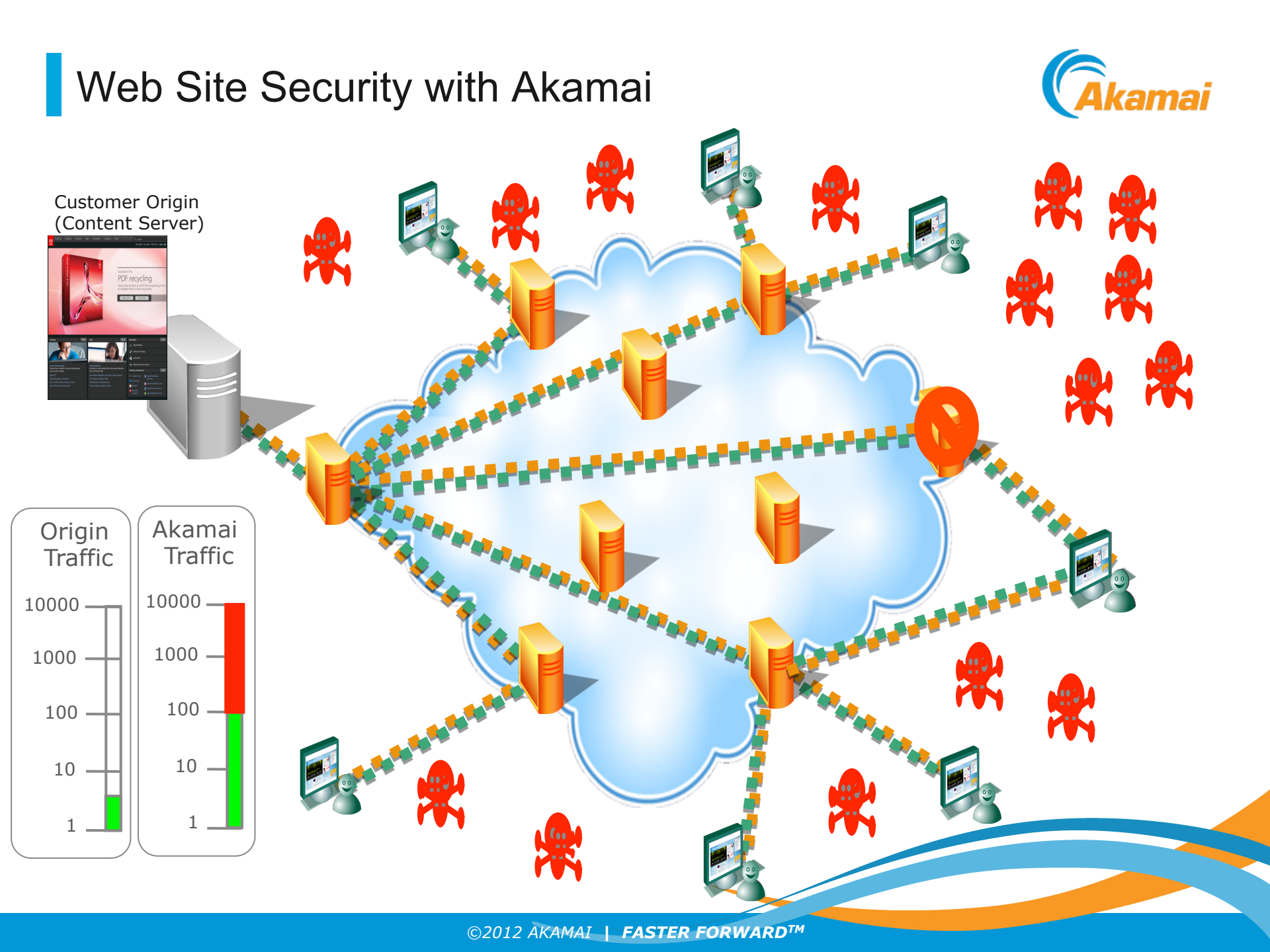
Akamai
FASTER FORWARD

Web Security

Web Site Security without Akamai



Web Site Security with Akamai



Akamai & IPv6

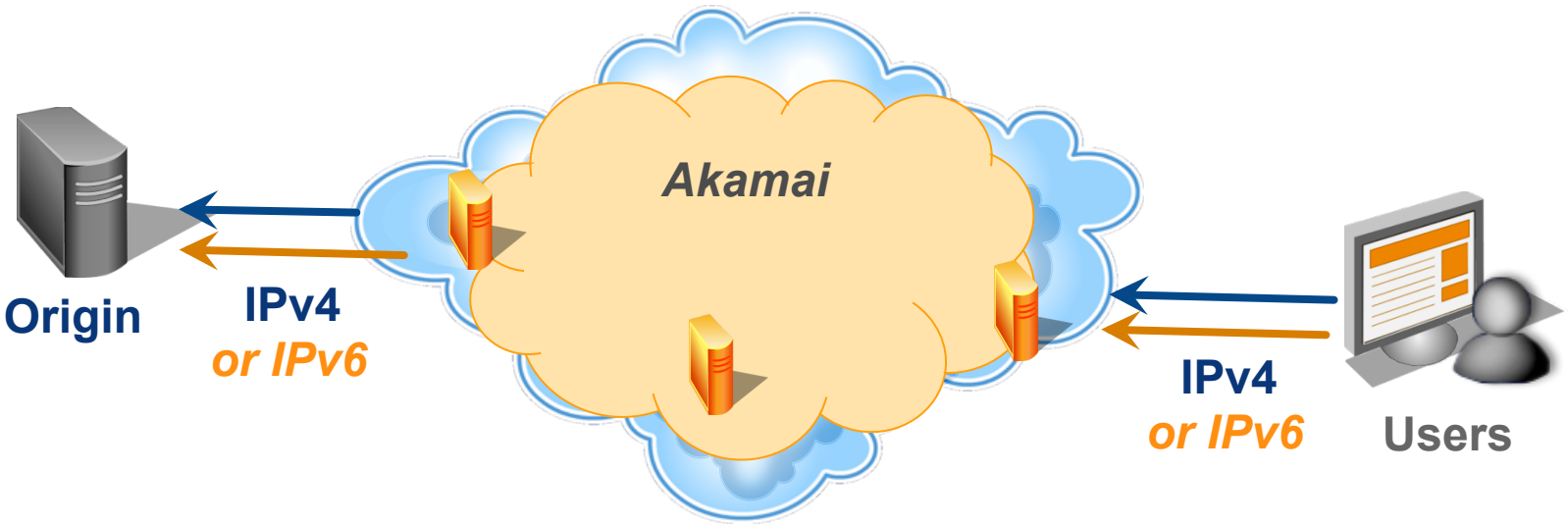
World IPv6 Launch

How we enable IPv6

Dual-stacking edge servers

Customer properties can be dual-stacked

- Terminate IPv4 and IPv6 connections in server software
- Can go forward to customer origin via IPv4 *(or IPv6)*



World IPv6 Launch Day: deployment status

In-production serving HTTP over IPv6 to users, tried to dual-stack every server everywhere

As of 2012-06-06, IPv6 now live in…

… over 53 countries

… over 175 cities (in all continents except Antarctica)

… over 225 networks

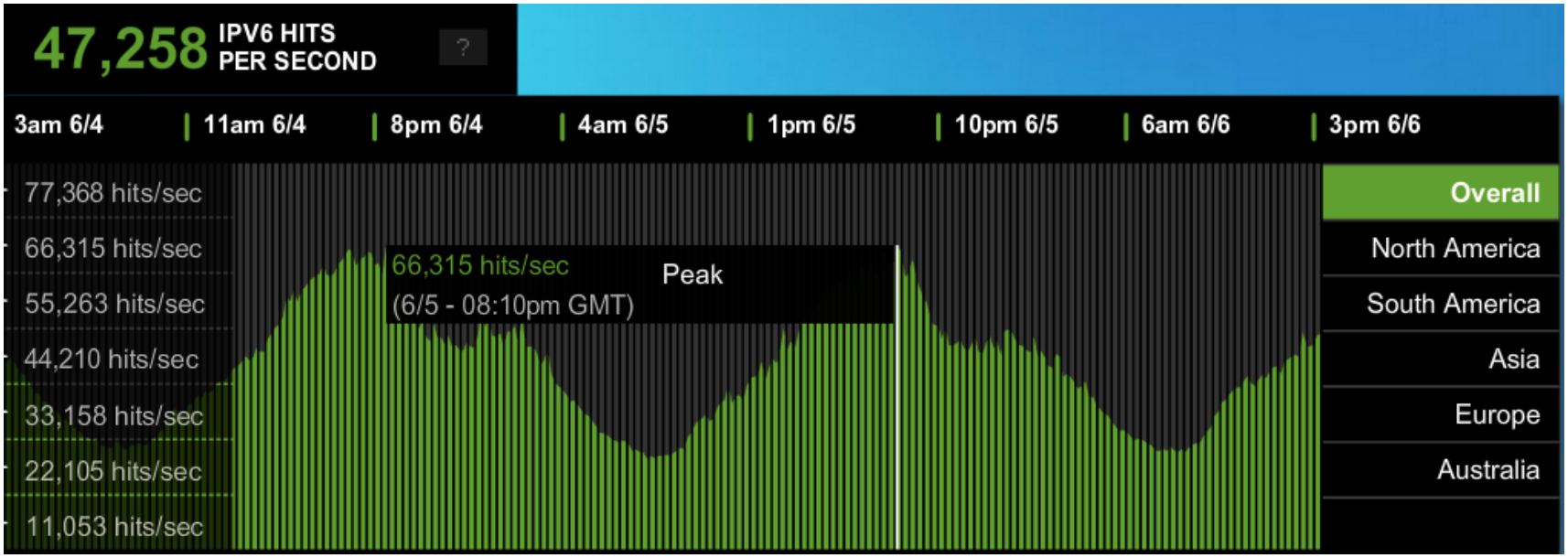
… over 600 Akamai server locations

… over 37,000 Akamai servers

Compare to a total of 1070 networks in 83 countries

(many network providers don't have working IPv6 yet, not all networks have full IPv6 routing table)

Observations from World IPv6 Launch



Akamai on World IPv6 Launch:

Have a lot of customers on IPv6

- Over 700 US government hostnames
- Over 20 US government agencies (over 700 hostnames)
- 1/3 of top-30 World IPv6 Launch Day participants (by Alexa rank), etc.

North America is ~75% of all IPv6 hits

Those customers who were dual-stacked before World IPv6 Launch show 0.3% to 1.5% of their traffic on IPv6

Questions?

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