Media Delivery Evolution

Doug Pasko
- Welcoming Content Distributors
- Competitive Services Welcome (Ex: Skype on Wireless, YouTube on FiOS TV)
- Verizon Developer Community
- Open Development Initiative
# Video is Driving Demand

(No surprise here)

<table>
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<tr>
<th>Rank</th>
<th>Provider</th>
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**Consolidation of Content** *(Grouped Origin ASN)*

In 2007, thousands of ASNs contributed 50% of content
In 2009, 150 ASNs contribute 50% of all Internet traffic
Approximates a power law distribution

**ATLAS Report for 2009: Originating Traffic**
The Existing Content Ecosystem

Online Retailer (Flixbuster) → CDN Providers

Bulk Bandwidth Provider (Levelcrossing) → Tier 2 Consumer Broadband Provider

Tier 1 Consumer Broadband ISP → Tier 2 Consumer Broadband Provider
An Alternative Content Ecosystem
(Confederated CDNs)

- Online Retailer (Flixbuster)
- CDN Providers
- Bulk Bandwidth Provider (Levelcrossing)
- Tier 2 Consumer Broadband Provider
- Tier 1 Consumer Broadband ISP

verizon
Incremental Network Impacts

Bulk Bandwidth Provider

CDN Providers

Global Core

Regional Routers

Access Networks

CDN Providers

Bulk Bandwidth Provider
Where to Start?

Direct Connect Content Now
- Verizon’s Partner Port 500 Gigabits/sec (2009)
- Projected 1 to 2 Terabit/sec (2010)

How to Value?
- Peering
- Content Partner Pricing
- Retail Transit

- Acknowledged Value to Customers
- Reduced Network Impact
- High Volume Discounting
Embed CDN & Standardize

Embed CDN Technology
- Deeply Deploy CDN Partner(s)
- Deploy Off the Shelf Boxes
- No CDN = No Participation = Poor Cost/Value

New Standards Required
- Inter-CDN Cache Fill
- How to coordinate authorization
- Content control / purging
- Reporting & Statistics consolidation
Closing Comments

Where ya heading?
Bricks for Verizon.
I've got a delivery for the other guys.

Build that wall higher! More speed bumps over there!
the other guys

...at Verizon

I want these even smoother!
Verizon

Open Development, Online Video & LTE Innovation, head on in!

I thought these bricks were for walls?
the other guys

I'm not sure they get it.
Verizon

Verizon