

Big Data in Hyperconnected World

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Agenda



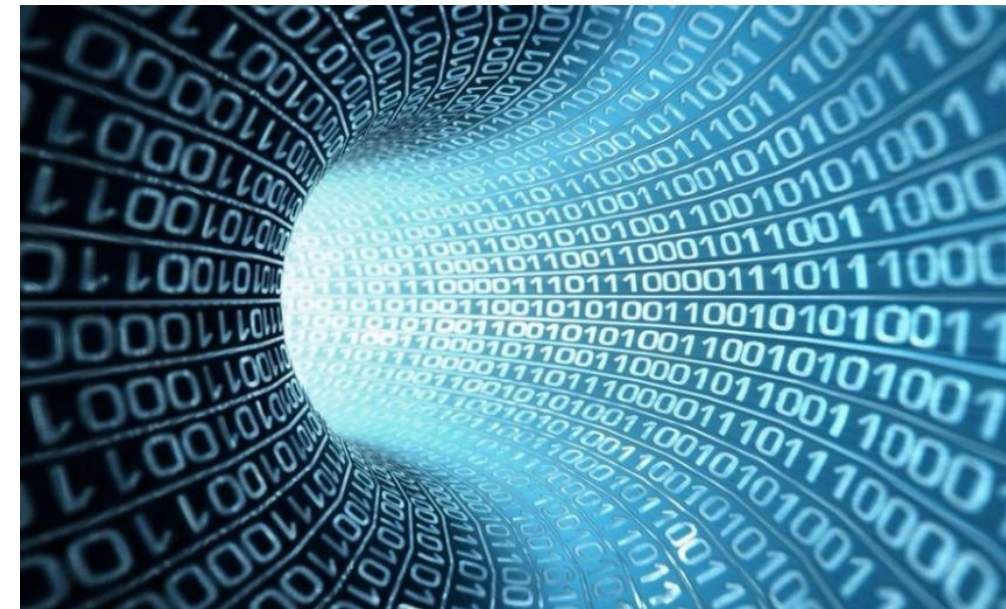
- Why does Akamai have Big Data ?
- Why Big Data is important ?
- What can we see with our Big Data ?



Why we have Big Data ?



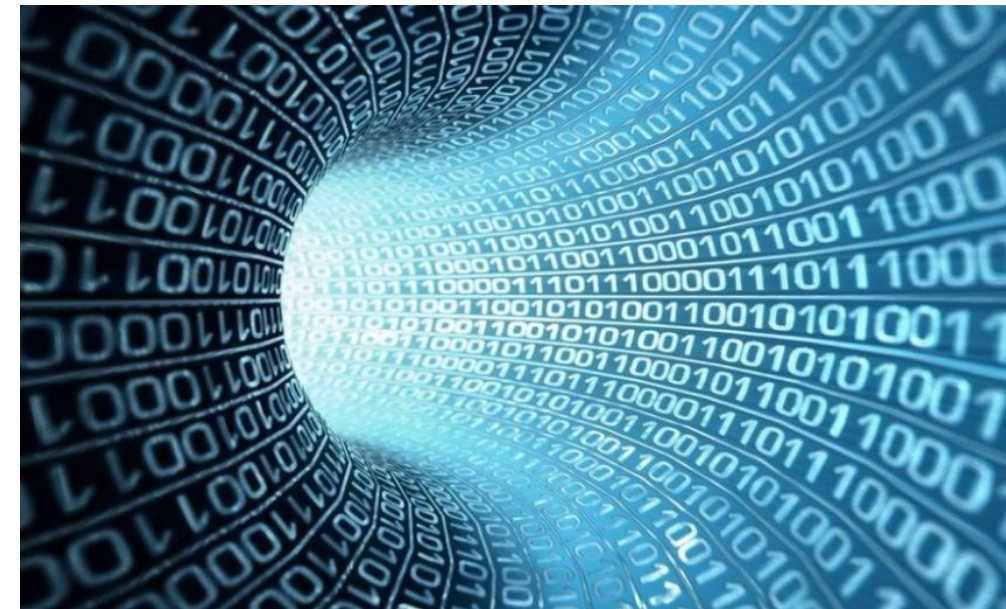
- ❖ film introduction, prof. MIT-Tom Leighton, CEO/Co- founder of Akamai
- **Akamai has the world's largest Internet platform** (over 133.000 servers, deployed in 81 countries)
- The Akamai Intelligent Platform is leading cloud platform delivering between **20-30% of the worldwide web traffic.**
- Accelerating Daily Traffic of:
 - ✓ 10+ Tbps
 - ✓ 20+ million hits per second
 - ✓ 2+ trillion deliveries per day
 - ✓ 30+ petabytes/day
 - ✓ 10+ million concurrent streams



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Why we have Big Data ?



Because Akamai's platform is used by:

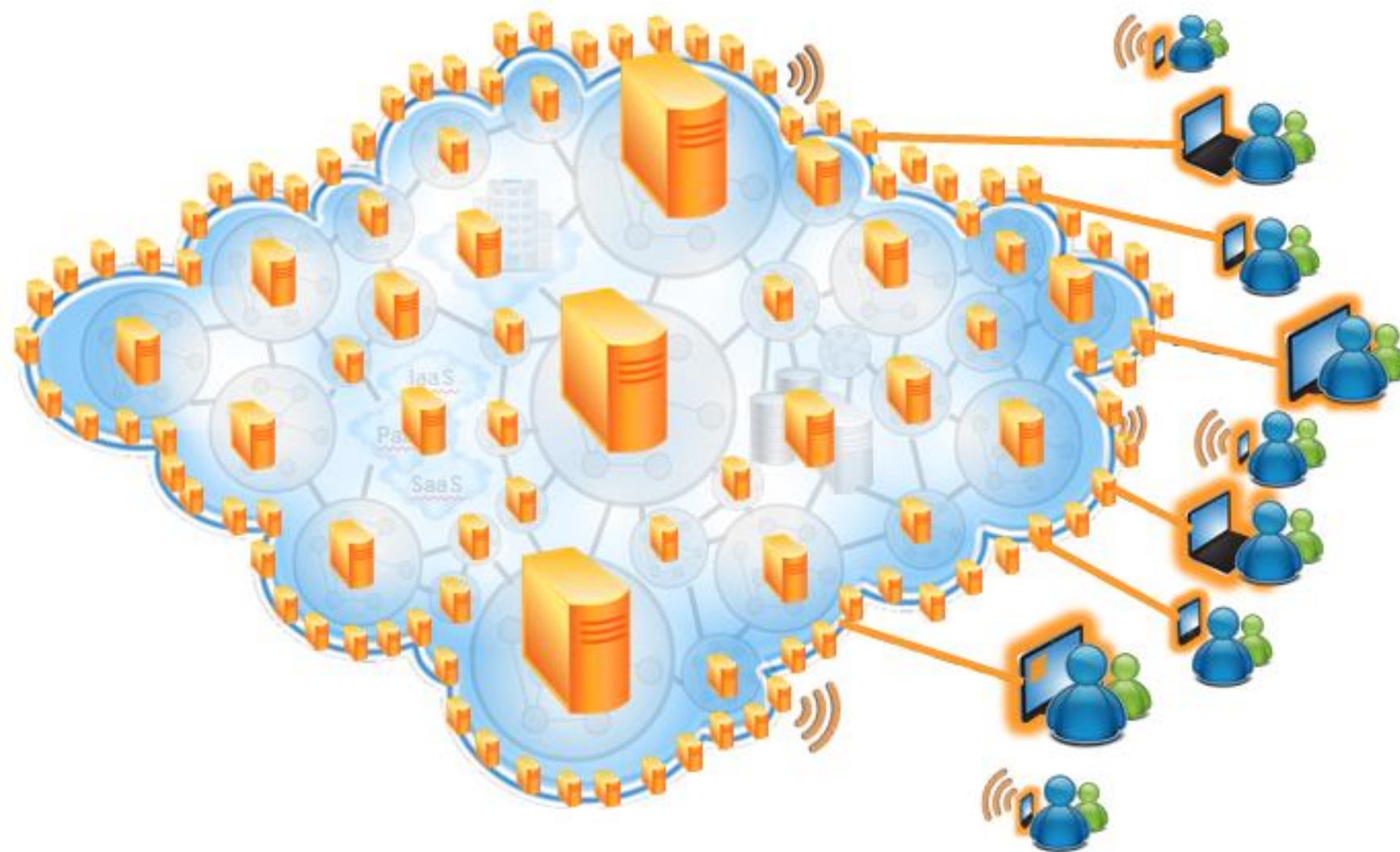
- The top 30 media & entertainment companies (Disney, NBC, MTV, Fox)
- All 20 top global eCommerce sites (e-Bay, Amazon, Best Buy)
- 7 of the top 10 world banks (HSBC, CityBank, BNP Paribas)
- 9 of the top 10 largest newspapers (like Daily Mail)
- 9 out of 10 top social media sites (Facebook, LinkedIn)
- 6 of the top 7 computer manufacturers (HP, Sony)
- All of the top anti-virus companies (like McAfee.com)

Top 100 Worldwide Global Brands trust Akamai

#	Brand	Brand Value 2011 (\$M)		#	Brand	Brand Value 2011 (\$M)	
1		153,285		26		24,312	
2		111,498		27		24,198	
3		100,849		28		22,587	
4		81,016		29		22,555	
5		78,243		30		22,425	
6		73,752		31		21,834	
7		69,916		32		19,782	
8		67,522		33		19,542	
9		57,326		34		19,350	
10		50,318		35		19,102	
11		44,440		36		17,597	
12		43,647		37		17,530	
13		42,828		38		17,290	
14		37,628		39		17,182	
15		37,277		40		17,115	
16		36,876		41		16,973	
17		35,737		42		16,931	
18		35,404		43		16,909	
19		29,774		44		16,314	
20		28,553		45		15,952	
21		27,249		46		15,719	
22		26,948		47		15,674	
23		26,078		48		15,449	
24		25,524		49		15,427	
25		24,623		50		15,344	

#	Brand	Brand Value 2011 (\$M)		#	Brand	Brand Value 2011 (\$M)	
51		15,168		76		11,558	
52		15,131		77		11,363	
53		14,900		78		11,291	
54		14,306		79		11,147	
55		14,258		80		10,883	
56		14,182		81		10,735	
57		13,917		82		10,731	
58		13,904		83		10,540	
59		13,754		84		10,525	
60		13,543		85		10,443	
61		13,421		86		10,335	
62		13,006		87		10,076	
63		12,931		88		10,072	
64		12,542		89		9,877	
65		12,471		90		9,600	
66		12,413		91		9,587	
67		12,160		92		9,358	
68		12,083		93		9,263	
69		12,033		94		9,251	
70		11,998		95		8,838	
71		11,917		96		8,760	
72		11,901		97		8,668	
73		11,759		98		8,600	
74		11,694		99		8,535	
75		11,609		100		8,439	

Why we have Big Data ?



Situations

Consumer



Business



Attacker



Why Big Data is important ?



- Gives visibility to make key business decisions
- Following user platform changes, we can see global trends
- Provides guidelines for future investment
- Helps to develop new products

What do we see with our Big Data ?



Security

	Country	Q4 '12 % Traffic	Q3 '12 %
1	China	41%	33%
2	United States	10%	13%
3	Turkey	4.7%	4.3%
4	Russia	4.3%	4.7%
5	Taiwan, Province of China	3.7%	4.5%
6	Brazil	3.3%	3.8%
7	Romania	2.8%	2.7%
8	India	2.3%	2.5%
9	Italy	1.6%	1.7%
10	Hungary	1.4%	1.4%
—	Other	25%	28%



Figure 1: Attack Traffic, Top Originating Countries (by source IP address, not attribution)



The data informs us about the source of the attacks. The big data visibility shows us potential risks of attacks and helps to protect from them.

What do we see with our Big Data ?



Connection speed across geography:

Country/Region	Q4 '12 Avg. Mbps	QoQ Change	YoY Change
– Global	2.9	5.0%	25%
1 South Korea	14.0	-4.8%	-13%
2 Japan	10.8	2.7%	19%
3 Hong Kong	9.3	3.4%	5.4%
4 Latvia	8.9	2.3%	20%
5 Switzerland	8.7	0.5%	20%
6 Netherlands	8.6	0.1%	3.3%
7 Czech Republic	8.1	7.0%	21%
8 United States	7.4	2.3%	28%
9 Sweden	7.3	7.4%	29%
10 Finland	7.1	4.3%	20%



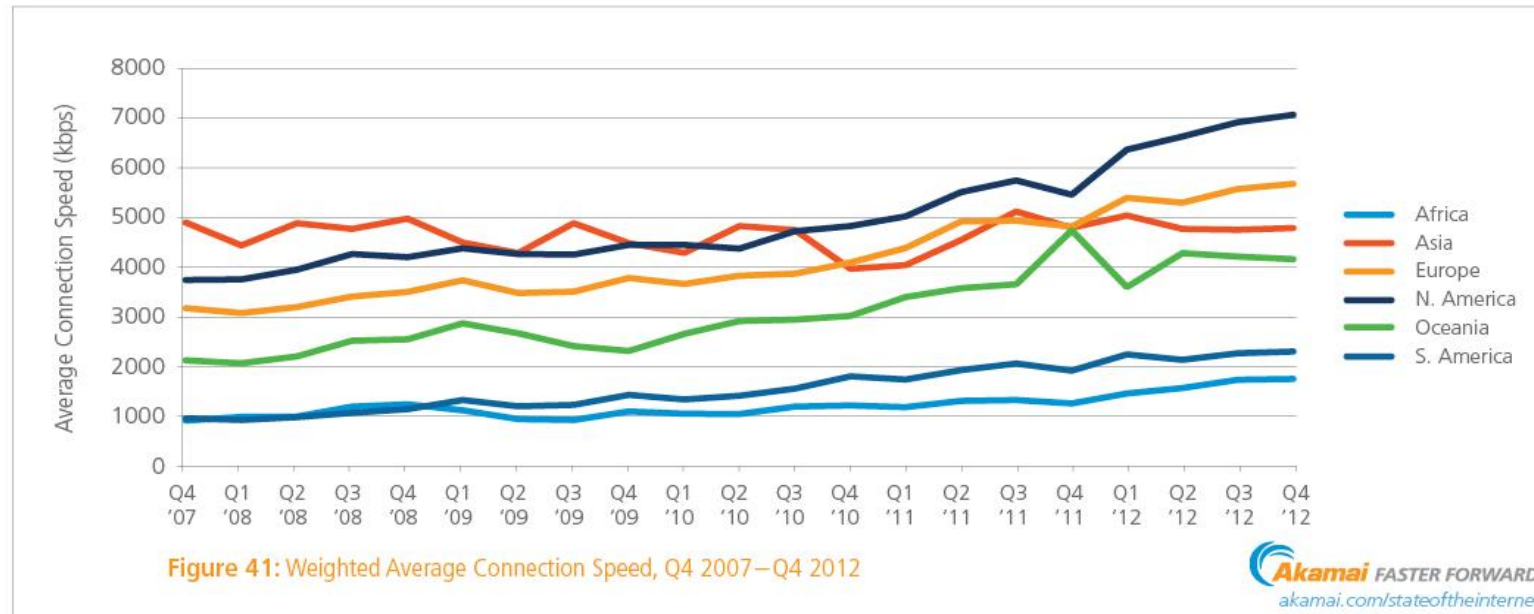
Figure 10: Average Measured Connection Speed by Country/Region



The data informs us about the connection speed. Which allows to adapt product to the region.

What do we see with our Big Data ?

Connection speed trends



We can see trends of connection speed per geography, which allows for example to adapt product per geography (HD Streaming)

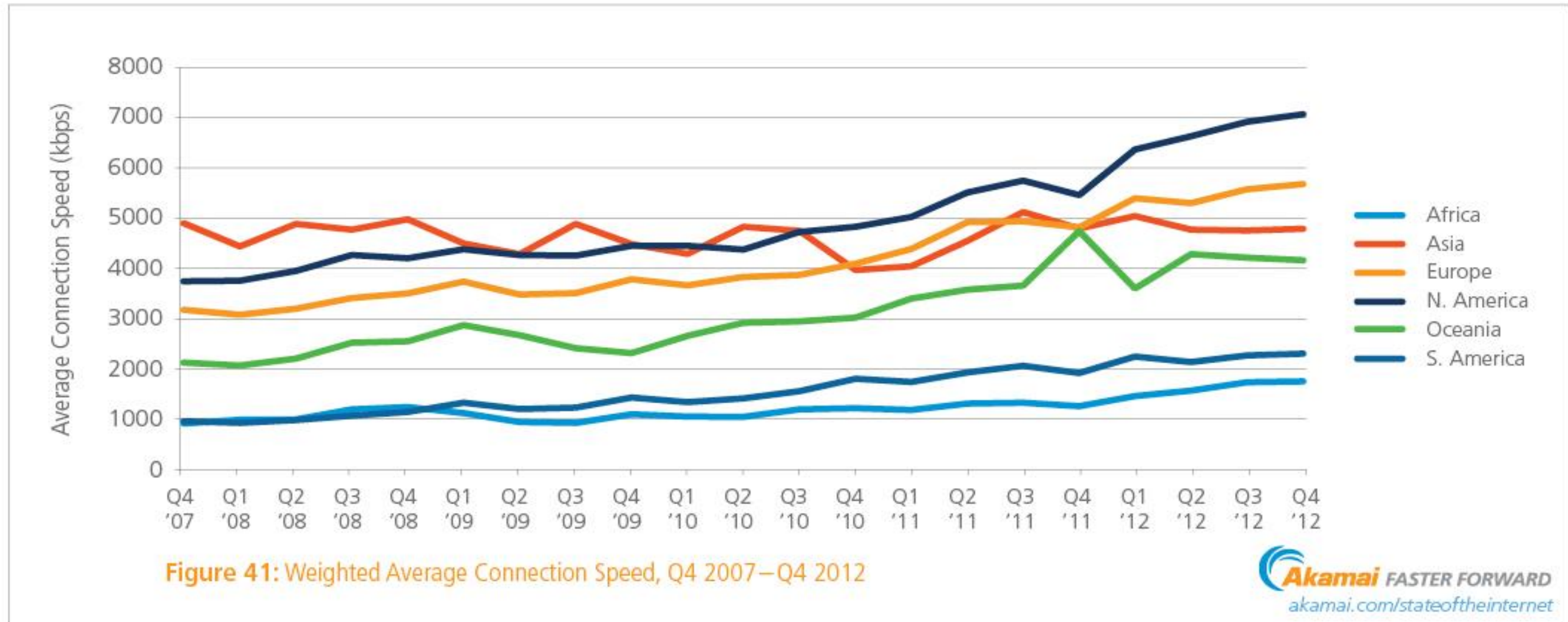
Global Rank	Country/Region	Q4 '12 Avg. Mbps	QoQ Change	YoY Change
5	Switzerland	8.7	0.5%	20%
6	Netherlands	8.6	0.1%	3.3%
7	Czech Republic	8.1	7.0%	21%
9	Sweden	7.3	7.4%	29%
10	Finland	7.1	4.3%	20%
11	Romania	7.0	11%	11%
12	Denmark	7.0	-3.2%	25%
14	Belgium	6.7	0.4%	6.0%
15	Ireland	6.6	-1.2%	-6.8%
16	Norway	6.6	6.5%	29%
17	Austria	6.6	0.5%	24%
18	United Kingdom	6.5	2.7%	27%
19	Germany	6.0	2.1%	18%
21	Hungary	5.9	1.1%	4.7%
22	Israel	5.8	2.7%	43%
23	Slovakia	5.8	-1.2%	8.2%
24	United Arab Emirates	5.7	0.3%	18%
25	Poland	5.6	4.4%	32%
32	Russia	5.1	-0.6%	34%
33	Portugal	5.0	3.3%	0.8%
34	Spain	4.9	2.1%	24%
36	France	4.8	0.2%	18%
44	Italy	4.0	1.8%	0.8%
60	Turkey	2.8	-3.3%	-0.1%
72	South Africa	2.1	-0.8%	41%

Figure 22: Average Measured Connection Speed by EMEA Country/Region

What do we see with our Big Data ?



Global speed connection trends across geography:



What do we see with our Big Data ?



Trends of mobile usage browsers

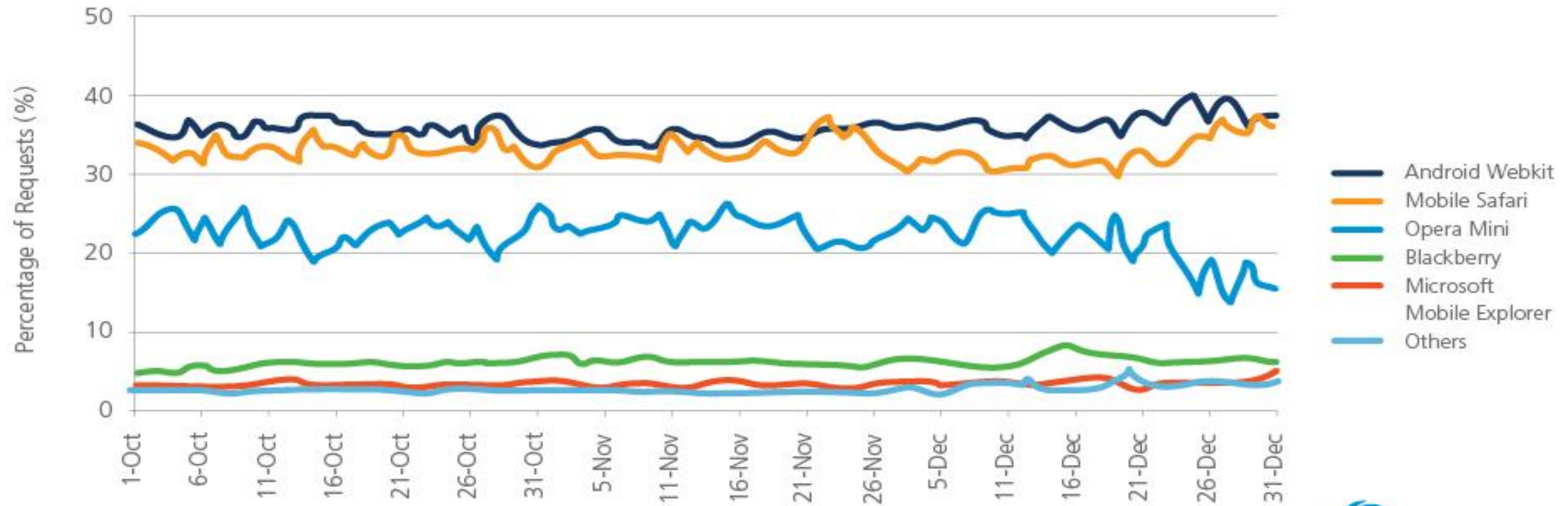


Figure 27: Mobile Browsers Seen Across Cellular Networks, Q4 2012

Android and Safari ahead across cellular networks usage

What do we see with our Big Data ?



Trends of mobile + TABLETS

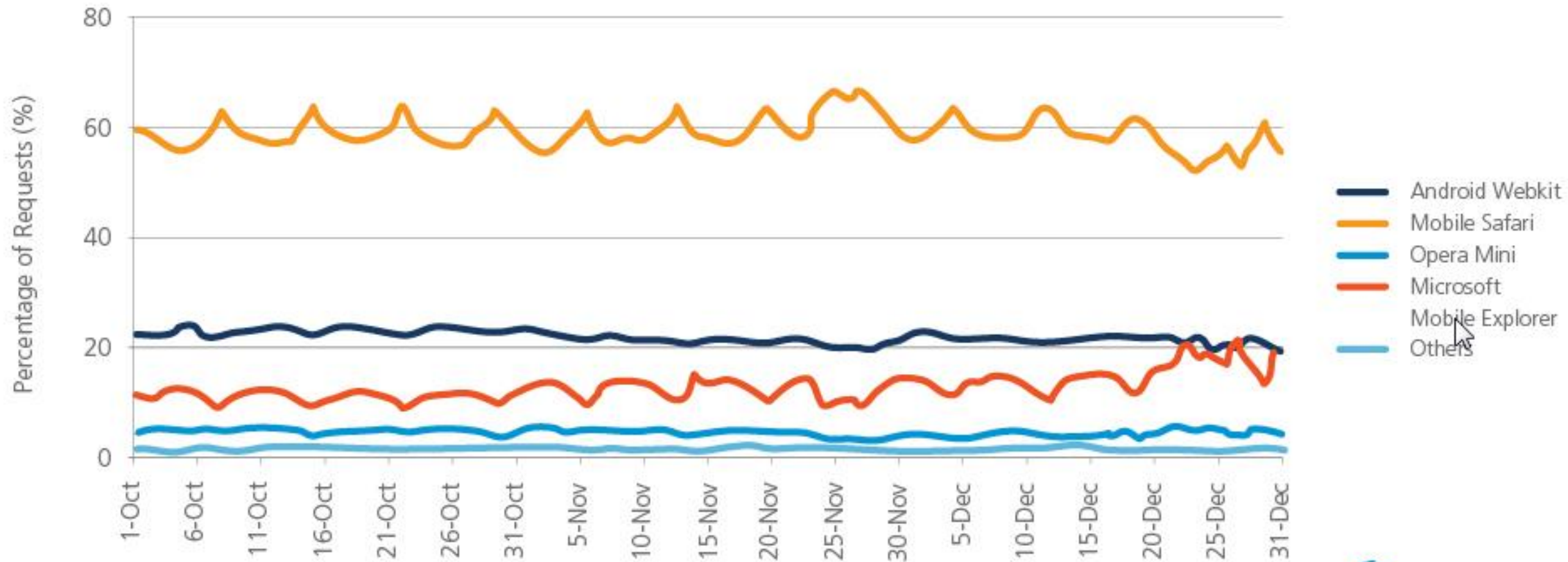


Figure 28: Mobile Browsers Seen Across All Networks, Q4 2012



Complete different view from mobiles + TABETS

What do we see with our Big Data ?



Trends of mobile devices usage voice/data

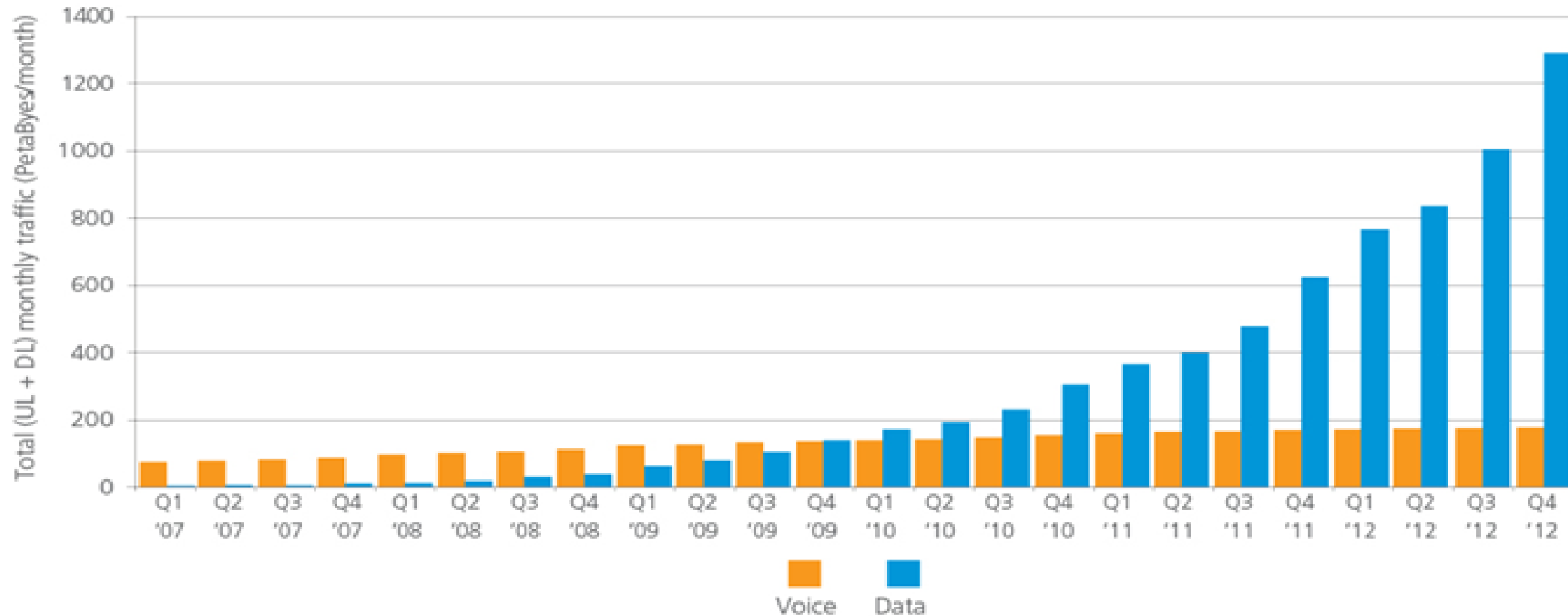


Figure 29: Total Monthly Mobile Voice and Data as Measured by Ericsson

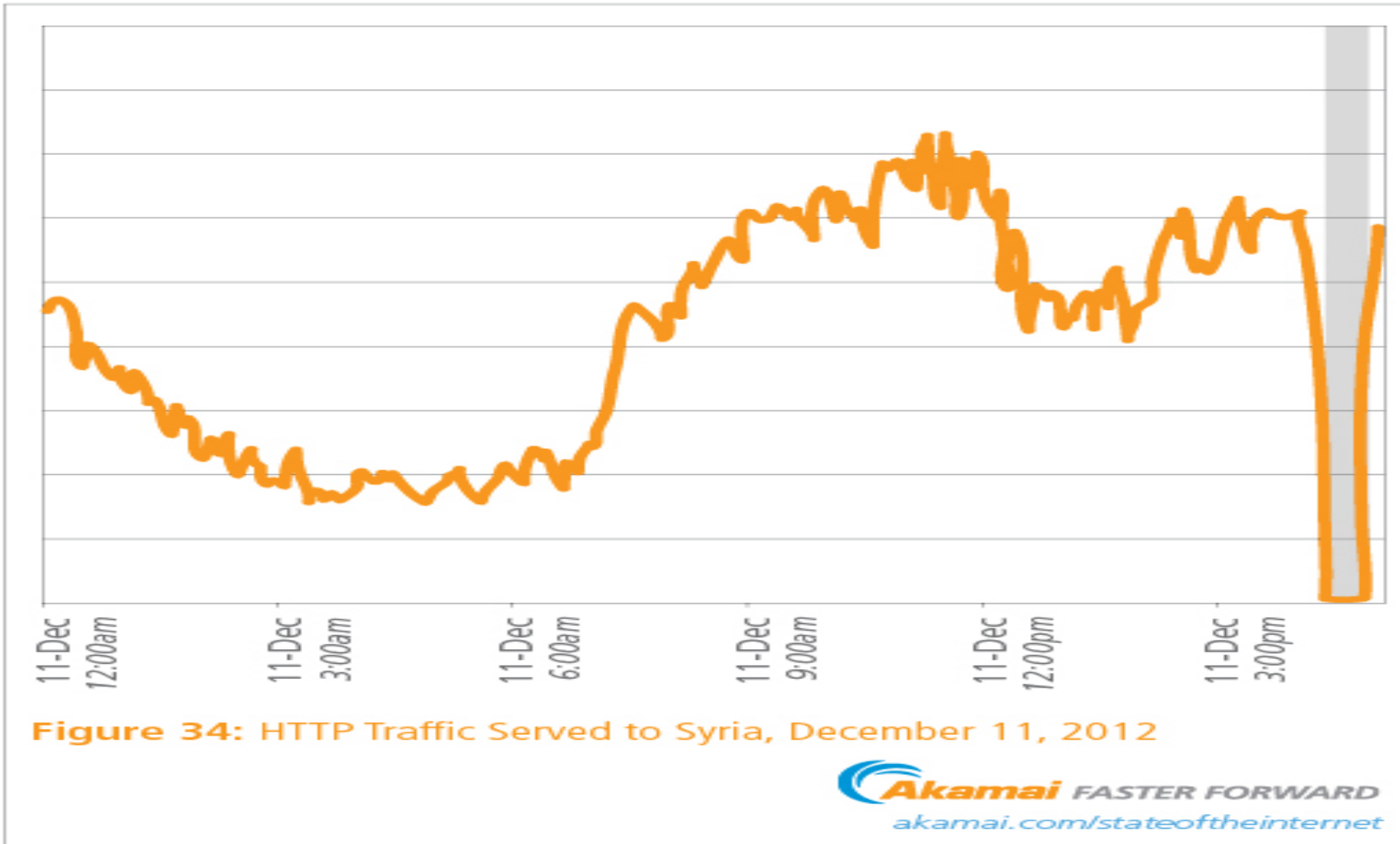


View on 2007- 2012 towards data usage

What do we see with our Big Data ?

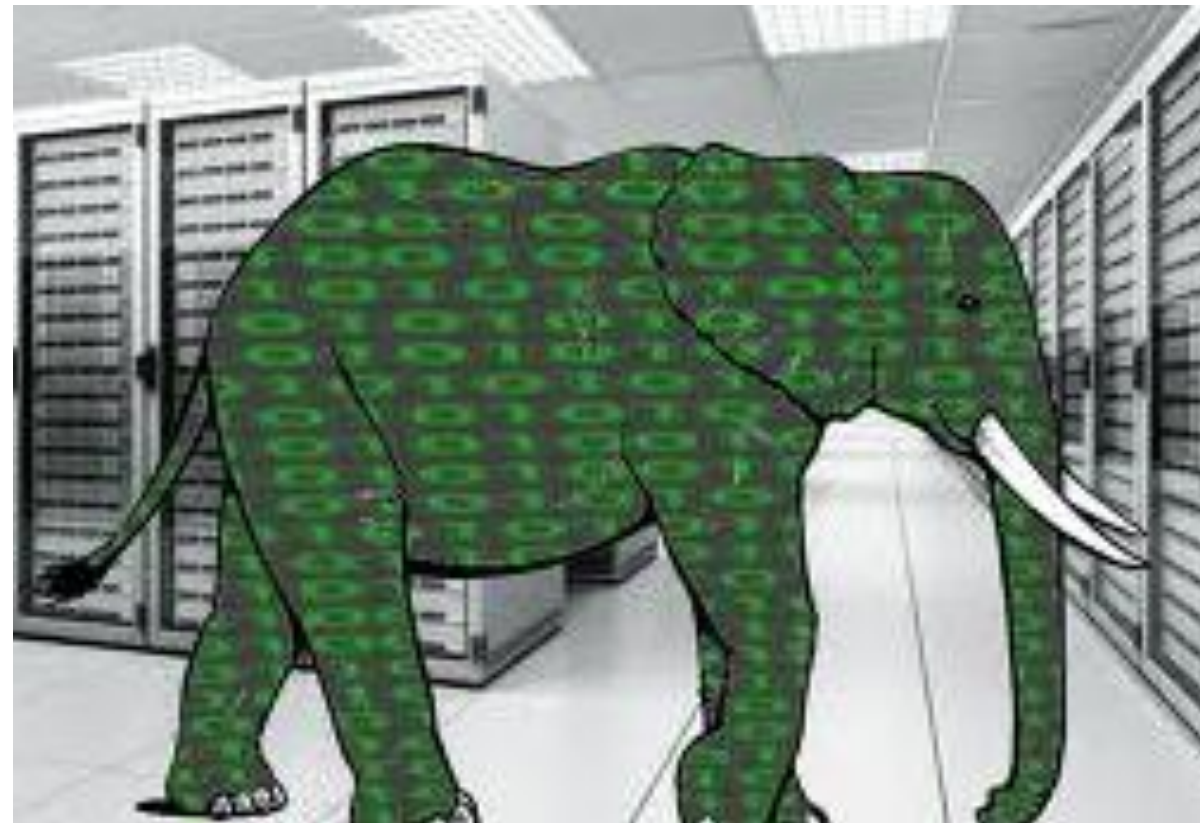


Political impact on the Internet



View via Traffic stop during conflict in Syria

What you do with your big data?



Thank you for attention