



Interception at 100 Gbps and more

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October 2011

Challenges for LEAs

■ Facts

- Exponential Growth of Throughput
- Emergence of 40 Gbps interfaces
- Greater number of interceptions
- More details needed to investigate means more data to process



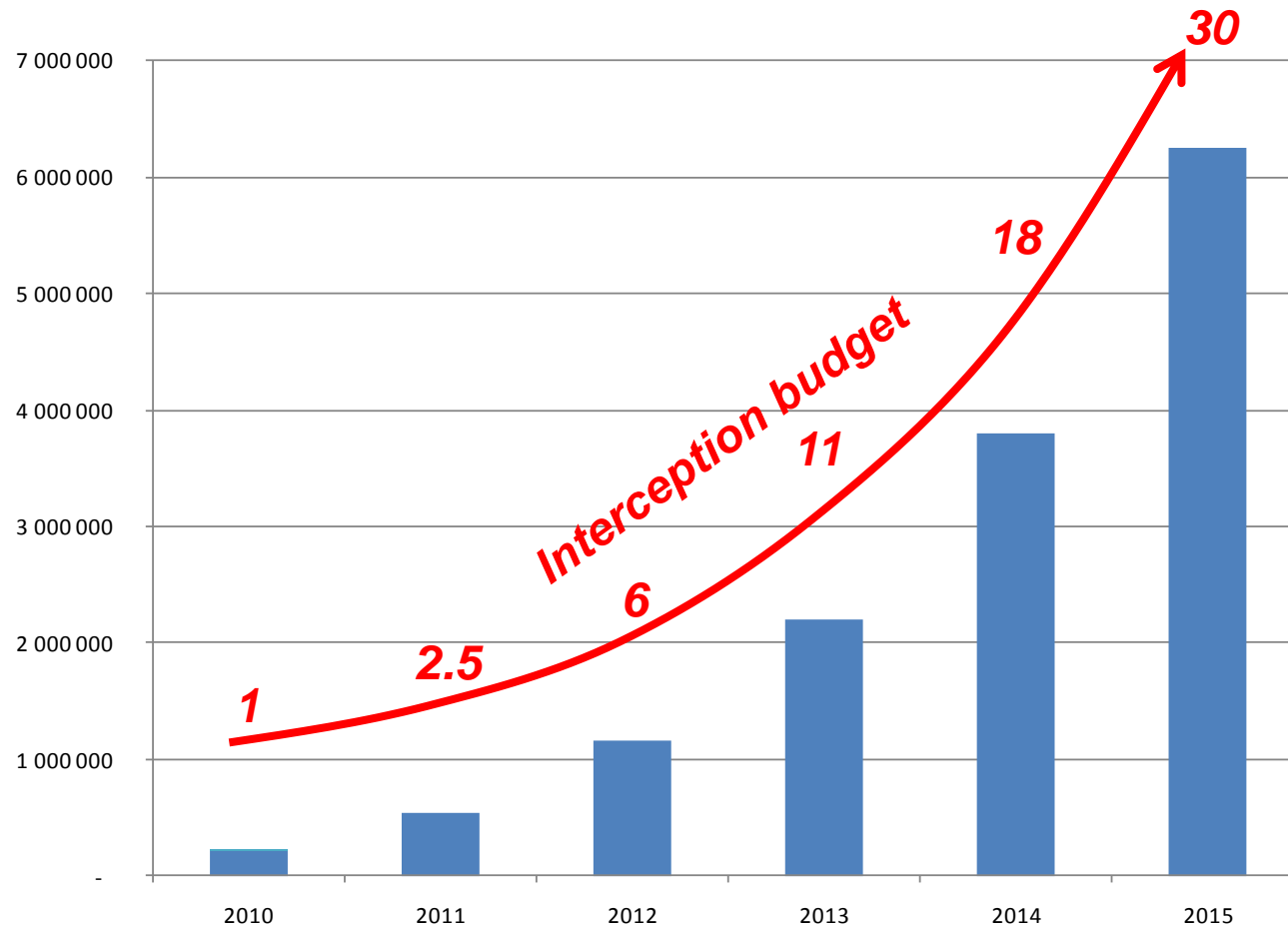
■ Consequence

- Higher complexity of technical implementation
- Higher cost
- Lower efficiency of analysts flooded by data



Simplistic approach not sustainable

Global Mobile Data Traffic by Application Category (TB per Month)



Source: Cisco VNI Mobile, 2011

Can budgets follow the same track?



Simplistic approach not sustainable

■ Simplistic approach

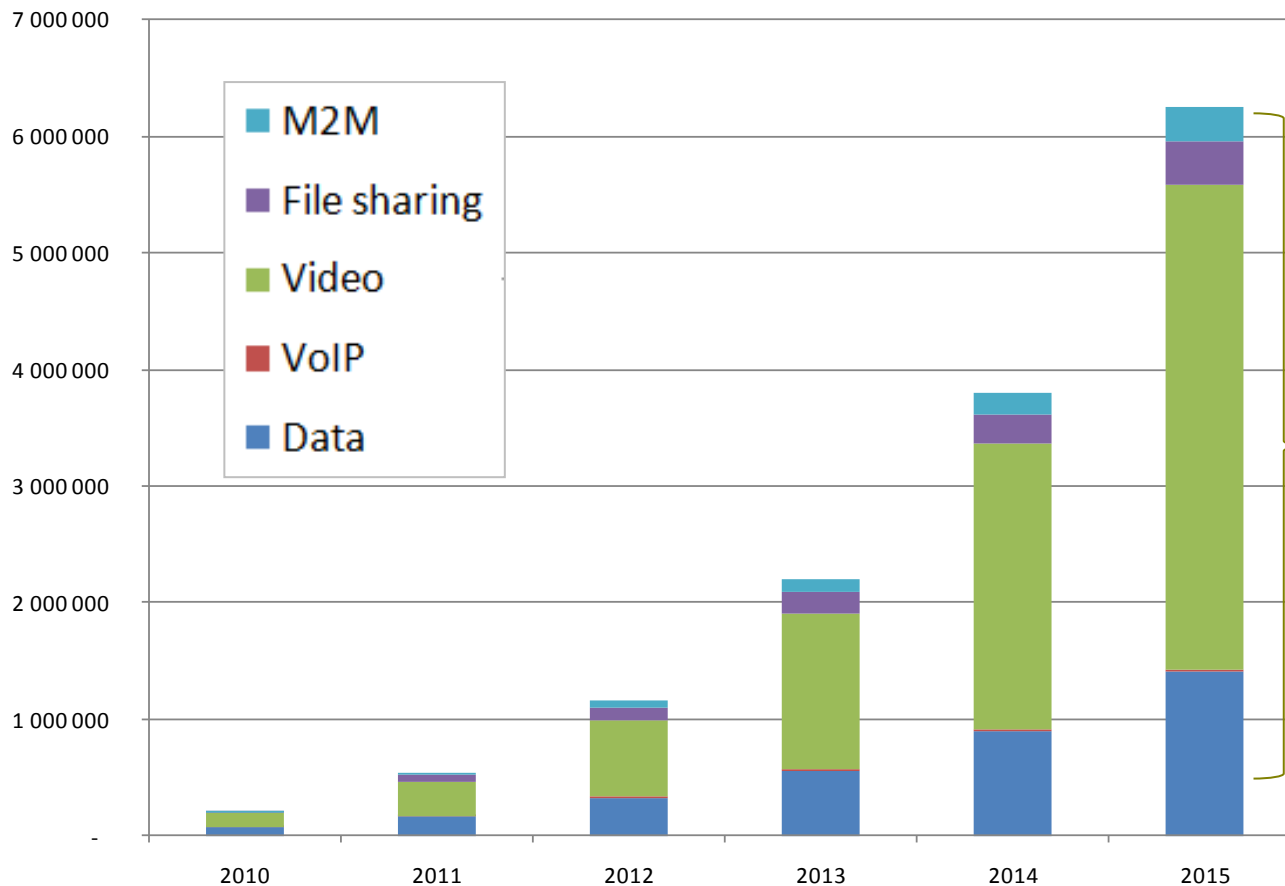
- Horizontal scaling: Multiply servers as fast as traffic increases
- To find targets in the growing volume of traffic

■ Impact of the simplistic approach

- Multiply processing costs
- Multiply storage costs
- Makes investigation more complex and slower because more data needs to be analysed by Agents

Good News: 90% of the growth is composed of non-relevant traffic

Global Mobile Data Traffic by Application Category (TB per Month)



- Video is booming
- Email + webmail + Instant Messaging + VoIP is stable with less than 2% of the traffic

Non-relevant (> 90%)

Source: Cisco VNI Mobile, 2011

A Selective Approach for Interception Is Required

■ Focus processing capacity on relevant traffic category

- Not all traffic is relevant for packet inspection
 - Video and entertainment
 - Games
- Triggers are usually set on very specific traffic categories
 - Email
 - Do you send more emails because your connection is upgraded from 10 Mbps to 100 Mbps?
 - VoIP
 - Authentication
 - These protocols generates stable traffic volumes

■ Focus processing capacity on relevant packets

- In a session, only a small amount of packets contain relevant information
- Email, webmail, IM, VoIP, authentication, SMS, MMS account for 2% of the traffic
- Many packets are even empty!

Q&A



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