

Content caching/CDN sharing for small ISPs at IXPs

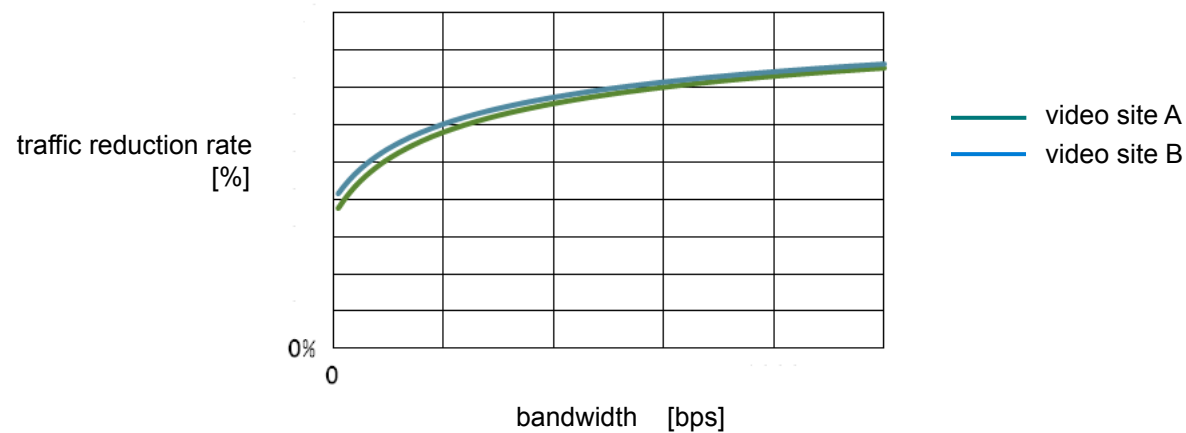
RIPE 65 EIX @ Amsterdam

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Introduction

- Small ISPs wanted to reduce their transit traffic, but cannot gather enough traffic for contents caching.

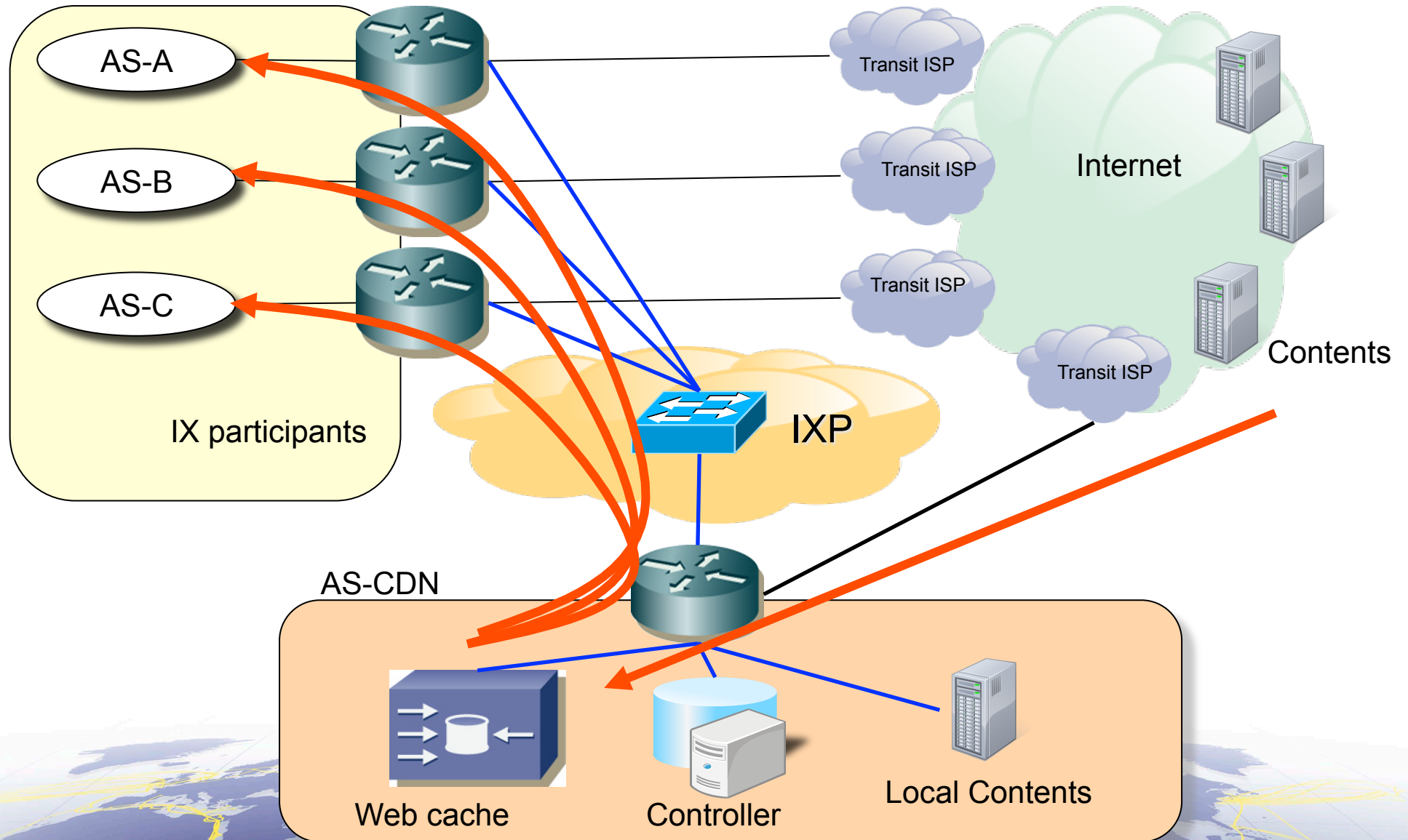
[Fig.] Traffic Reduction Rate Simulation



- How can IXPs help those small ISPs ?



Sharing the content cache / CDN



One small IXP's challenge

- Echigo-IX^(*1), Japanese small regional IXP, has participated in AANP ^(*2) since Oct. 2011.
- Five (5) small ISPs member of Echigo-IX share the CDN environment.
- Merit :
 - QoE improvement ... Low latency, less jitter
 - Transit traffic decrease (12-14% off)
- Consideration point :
 - Access line traffic increase (about 10%-20%, this might cause cost up)
 - Who (and how) pays transit cost of AS-CDN?

(*1) <http://www.echigo-ix.jp/> (in Japanese)

(*2) http://www.akamai.co.jp/enja/html/about/press/releases/2011/press_jp.html?pr=102011 (in Japanese)

Next challenge

- Technically, CDN sharing works well. But some ISPs want to reduce not only CDN based contents but also other web traffic.
- I'm now investigating "Transparent cache" technology on the IXP.
- Action Item :
 - Traffic control using BGP (upstream, downstream)
 - Asymmetry routing problem
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