Appendix:

Cloud Based – Content Delivery Networks

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Content Delivery Networks: Fundamentals
What are Content Delivery Networks?
What are Content Delivery Networks?

Architectures (nodes, interfaces) + Algorithms for content life cycle management

Content distribution
- Send content from their original sources to the caches

Request routing
- Route end-user request for content to content locations

Content acquisition/consumption
- Send content to end-user devices
What are Content Delivery Networks?

Architectures (nodes, interfaces) + Algorithms

Ultimate goal: Make trade offs between

End – User QoS / QoE, e.g
- Latency
- Video resolution

Cost, e.g.
- Cost for storing content in caches
- Network cost for content distribution / acquisition
Traditional Content Delivery Networks (Architecture)

1. Replicate Content
2. Request for Content
3. Redirect request
4. Deliver content
Traditional Content Delivery Networks
(Distinctive characteristics)

Traditional Web Technologies, e.g.
- Static resource allocation

Traditional Internet Technologies, e.g.
- Host centric routing, vs. content centric routing
Cloud Based - CDNs
What could Cloud CDN bring?

CDN goal: Trade offs between end-user QoS/QoE and cost

End-user QoS / QoE

- More flexibility in responding to end-user fluctuating demands
- Rapid provisioning of new value added services

Cost:

- Dynamic resource provisioning
- Pay per use
What could Cloud CDN bring?

Cloud CDN
(A few emerging commercial products)
The End