The Akamai Network

A Platform for High-Performance Internet Applications
Challenges

- Congestion
- Routing protocols
- Unreliable networks
- Scalability
- Adoption

Figure 1: Percentage of access traffic from top networks
Motivation

- Impatient end users
- Website performance
- User actions based on website latency
- Applications with performance, reliability and scalability
Content Delivery Network

- Simple cache
- Circumvent middle mile
System Design Principles

- High performance
- Fast deployments
- Move fast
- Scalability
- Reliability

Figure 2: A delivery network is a virtual network built as a software layer over the Internet that is deployed on widely distributed hardware.
The Akamai Network

- Akamai CDN
- Overlay Network
- Distributed computing system
- Edge network
- Collections of Delivery Networks
Architecture

- Mapping system
- Edge server
- Transport system
- Communication/Control & Collection/analysis
- Management portal
Streaming

- High throughput
- Reflectors & Entrypoints
- Optimal paths
Application Delivery Network

- EdgeComputing™
- Optimized transport system
Summery

- Pioneered CDN
- Evolved into a collection of delivery networks
- Vast, distributed system available in most networks.