

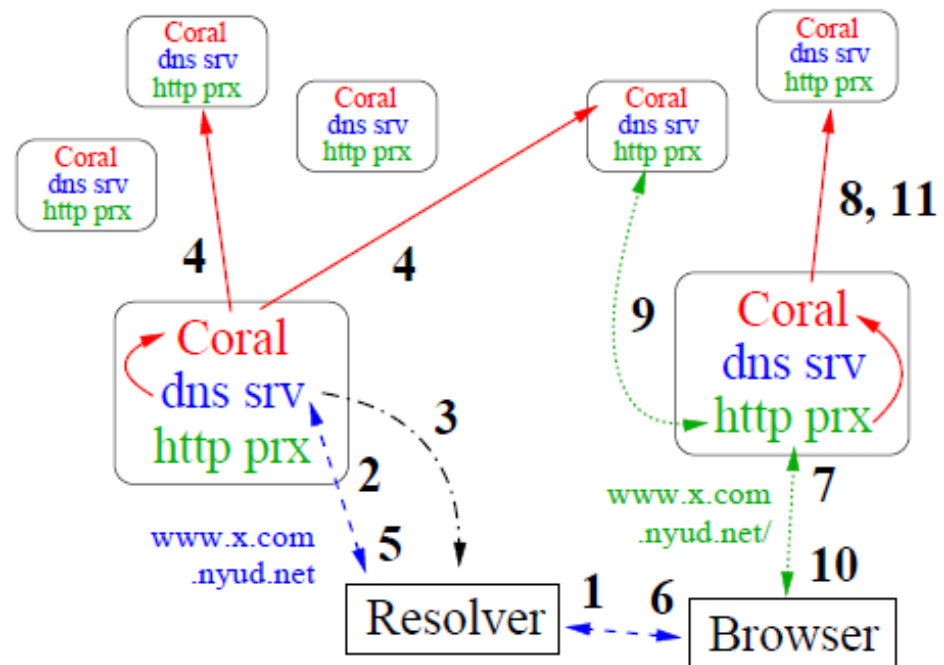
CORAL CONTENT DISTRIBUTION NETWORK

THE DESIGN AND PERFORMANCE ANALYSIS

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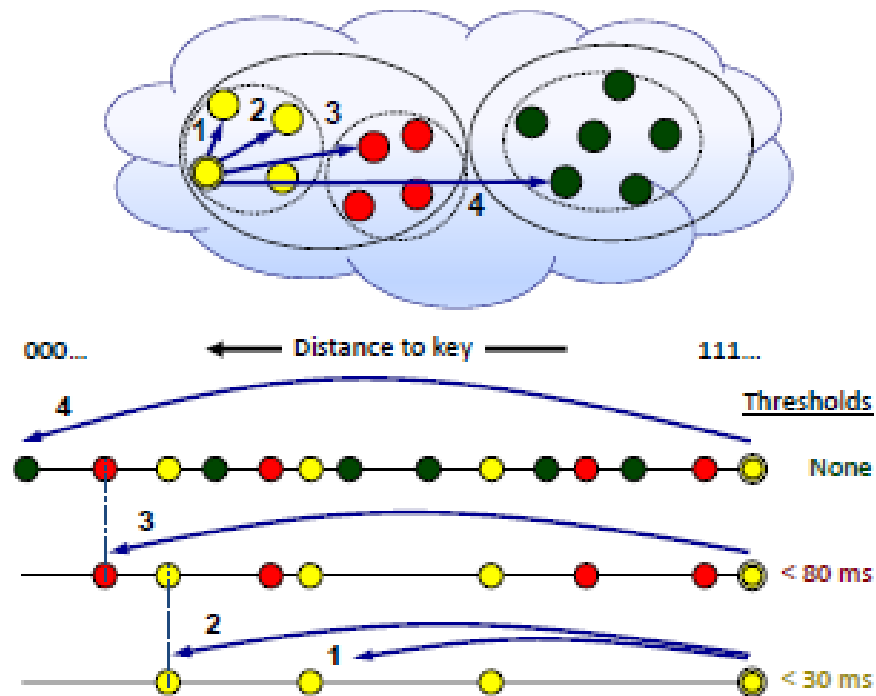
CoralCDN

- P2P content distribution network
- For overloaded origin servers
- Convenient utilization
 - Publishers
 - Users
 - Third-parties
- Pros
 - Locality
 - Prevent hot spots



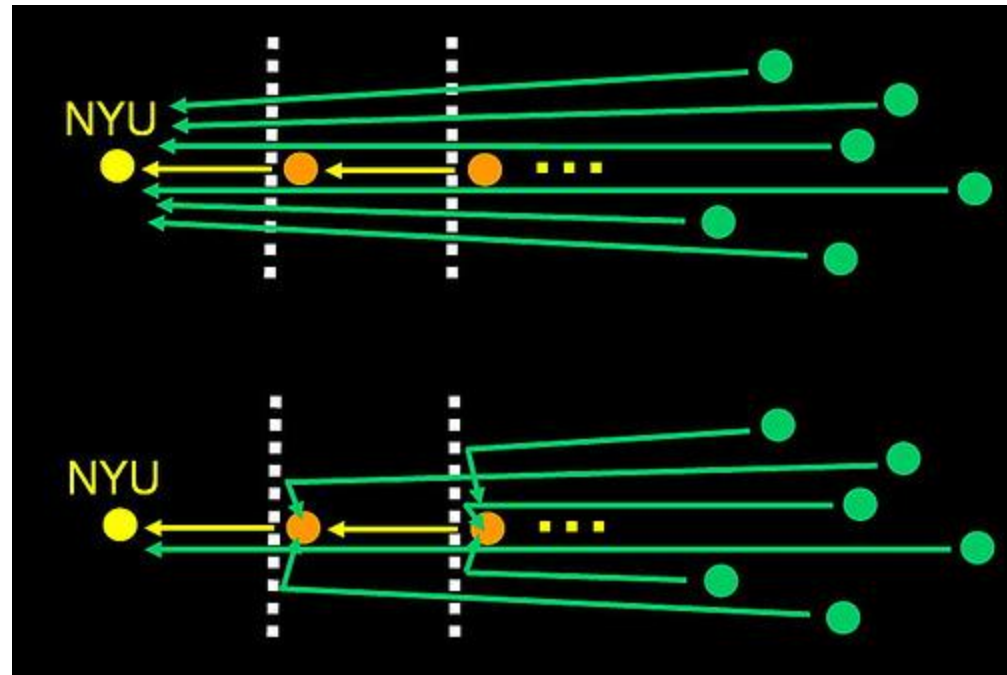
Locality

- Distributed Sloppy Hash Table
- Use hierarchies in enquiry
- Reduce latency



Prevent hot spots

- Underlying Coral structure
- Put/get operations for key/value pairs
- DHT inserts value to node closest to key
- DSHT doesn't



Implementation

- Available on PlanetLab since March 2004
- Millions of users per day
- Access to unavailable sites

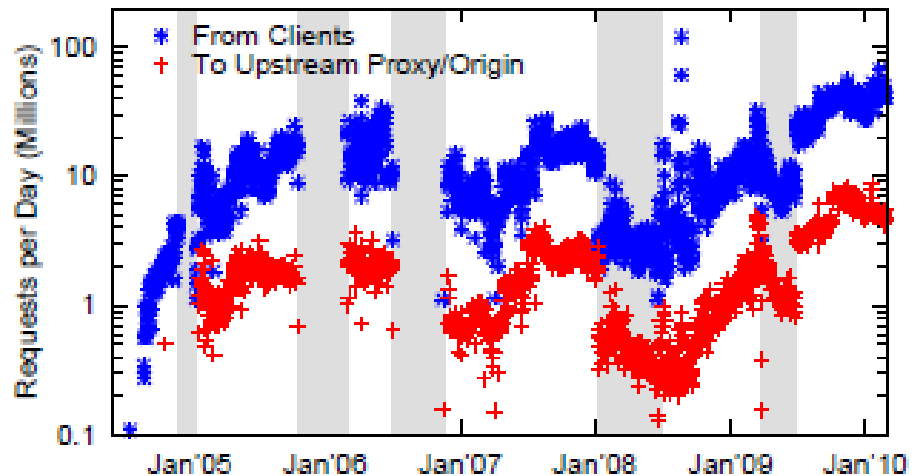


Figure 3: Total HTTP requests per day during CoralCDN's deployment. Grayed regions correspond to missing or incomplete data.

Evaluation

Design and Performance

- Most popular objects already cached
- Unexpected uses
- Unnecessarily complex?
- Security issues
- Scalable?