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?