The CoDeeN Content Distribution Network

Concept

Sim Topology

Simulated Throughput

Timeline

Donors/Partners

Strategies

Bottleneck Analysis

CoDeeN Node Architecture

December 2002
Presentation at OSDI’02 -- “The Effectiveness of Request Redirection on CDN Robustness”

January 2003
CoDeeN prototype developed
12 nodes operational
40 nodes planned

February 2003
Monitoring interface
Public announcement

Limin Wang
Vivek S. Pai
Larry Peterson
Princeton University

CoDeeN stems from DARPA Contract F30602-00-2-0561, “Building Secure and Reliable Networks Through Robust Resource Scheduling”

CoDeeN Node

CoDeeN Reverse Proxies

Origin Server

iPlanetaLab

inMimic

Utilization Scheme | Max Thpt (Kreq/s) | DISK(%) | CPU(%) |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Stdev</td>
<td>Mean</td>
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<tr>
<td>Random</td>
<td>9.3</td>
<td>100.0</td>
<td>0.00</td>
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<tr>
<td>R-CHash</td>
<td>20.4</td>
<td>99.15</td>
<td>3.89</td>
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<tr>
<td>R-HRW</td>
<td>18.5</td>
<td>99.74</td>
<td>1.26</td>
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<tr>
<td>LR-CHash</td>
<td>25.4</td>
<td>97.83</td>
<td>12.51</td>
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<tr>
<td>LR-HRW</td>
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<td>99.00</td>
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<td>CDR</td>
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<td>25.18</td>
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<td>FDR-Global</td>
<td>33.2</td>
<td>17.60</td>
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CoDeeN Node Architecture

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