CASE STUDY

Cable Provider Speeds Up Service with Improved DNS Management

BENEFITS

- Fast domain name lookups
- Improved customer experience
- Low-cost DNS administration

APPLICATIONS

- SIP-based voice and data
- PacketCable™ voice and data

SOFTWARE

- Name Commander™

CONTACT

Incognito Software Inc.
Web: www.incognito.com
Email: sales@incognito.com
Phone: +1.604.688.4332
Toll-Free: 800.877.1856 (North America)

Challenge

A large US-based cable MSO with more than 100,000 subscribers wanted to improve the speed and costs of its Internet services through its DNS system. DNS is an essential part of any Internet service – converting domain names into machine-readable IP addresses so that computers can access web sites.

The MSO had set up a DNS server cluster at headquarters, communicating to subscriber computers via satellite. However, the satellite link had created two challenges: subscribers experienced very slow connection times, and the MSO found it costly to support the constant satellite access.

Solution

To eliminate the delays and costs associated with resolving domain names, the cable operator installed Name Commander software at headquarters to manage over 20 BIND servers, one server located in each population center around the state. The DNS server cluster at headquarters remained in place. For reliability, each remotely located BIND server was configured to act as a secondary server as backup for a primary in another location.

Now each BIND server handles domain name requests from subscribers in the local vicinity – satellite links aren't always necessary. If the BIND server cannot find an answer from recent lookups in its cache, it sends the request to the DNS server cluster at headquarters via satellite. One of those servers then performs a standard recursive search for the IP address. Working on the domain name from right to left, it queries a series of DNS servers anywhere in the world with progressively more information until the proper address is found. It then returns the result to the BIND resolver.

The caching system in each BIND resolver reduces the load on the DNS system and improves response times for subscribers. The cache stores DNS responses for a specified period of time, after which it contacts the DNS server cluster for updated DNS lookup information.

Before Name Commander was installed, the cable operator didn't have any cost-effective way to centrally manage DNS servers. Name Commander provides the capability to create, delegate, and maintain A, NS, CNAME, and MX records; assign hostname and IP address data automatically; and perform mass network-wide updates of domain records.

Name Commander software is also being integrated with Address Commander™ to oversee the complete IP address lifecycle and eliminate an inefficient manual system for tracking IP addresses. The new, fully automated IP address management (IPAM) tool generates reports specifically designed for ARIN, including SWIP email updates.

Results

Subscribers have seen vastly improved connection speeds, improving their overall impression of the quality of service provided. The MSO has also saved on the costs of satellite communications, and greatly improved efficiencies in their DNS management system. In addition, they can re-focus their staff on other projects with the time saved in ARIN reporting.

incognito™ software

Incognito Software Inc.
Suite 500-375 Water St.
Vancouver, BC Canada V6B 5C6
Phone: 604.688.4332
Fax: 604.688.4339
Email: sales@incognito.com
Web: http://www.incognito.com