

## CASE STUDY

# Insight Communications Powers Market Expansion and Brings Provisioning System In-House with Incognito's Solution

## Challenge

Insight Communications Company, Inc. is the ninth largest cable operator in the United States with approximately 1.4 million customer relationships in the four contiguous states of Illinois, Kentucky, Indiana and Ohio. Prior to the spring of 2006, Insight was outsourcing a portion of its ISP services, such as e-mail, IP Provisioning (DHCP), DNS and Internet Drains. However, in the spring of 2006, the company decided to bring these ISP applications and services in-house, a decision that created a number of engineering and operational challenges. The single greatest challenge was to meet a 60-day timeline for the deployment of provisioning (DHCP) servers for the entire network.

To accomplish this, Insight needed a responsive and nimble vendor who could provide a robust and reliable provisioning solution. Deploying a provisioning system in 60 days is an aggressive undertaking and requires multiple ad-hoc configuration adjustments and manual customizations. Furthermore, once the system is up and running, audits and tests must be performed to ensure that the system is stable, synchronized across all sites, and operating optimally.

Insight needed a solution would:

- Support DOCSIS® and PacketCable™ device provisioning that would allow Insight to expand reliable VoIP services across its entire network
- Automatically authenticate and activate customer premise equipment as well as upgrade the download speeds for Insight's premium high-speed Internet subscribers
- Integrate with Insight's existing billing system to ensure fast deployment
- Minimize service disruptions throughout the deployment process and efficiently provision services that are highly available

## Solution

Insight found the right combination of features in Incognito's Broadband Command Center™.

Incognito's Broadband Command Center software automatically brings SIP, Packet-Cable and DOCSIS® modems, MTAs and other subscriber-edge devices online based on client classes and operator-defined policies. Regardless of the network's size or speed of growth, Broadband Command Center ensures scalable and reliable service deployment. It vastly reduces manual administration and enhances customer service with powerful auto-configuration.

## BENEFITS

- Maximum reliability and availability
- Operational efficiency
- Quick deployment of services
- Billing system integration

## INDUSTRY

- Cable video, high-speed Internet and phone service providers

## SOFTWARE

- Incognito's Broadband Command Center™

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To provide Insight with an up-and-running provisioning system in 60 days, Incognito's support team performed ad-hoc customizations to accelerate the integration process. Once the system was up and running, Incognito executed a complete suite of audits and tests to ensure that Broadband Command Center was operating optimally and synchronizing with all servers across the various serving areas.

With Broadband Command Center's client classes and operator-defined policies, Insight was able to perform service package upgrades for its high-speed Internet customers without lengthy service disruptions. The download speeds in the premium service customers' configuration files were upgraded from 4Mbps to 10Mbps and from 10Mbps to 15Mbps. Insight was able to make the adjustments and to command the simultaneous reboot of all required cable modems within a small maintenance window.

Broadband Command Center also ensured maximum availability and reliability through the incorporation of redundant servers. The DHCP service went beyond the IETF draft specification by using 1:1 primary-to-secondary server backup instead of an n:1 failover relationship. This scheme is a "true hot standby" system, which ensures that no performance penalties occur in case of failover. Moreover, if one of the TFTP file servers failed, the controlling DHCP server could assign an alternative TFTP server to deliver configuration files to subscriber devices.

In addition to high availability, Broadband Command Center also offered heightened efficiency achieved through load-balancing clusters of several TFTP servers, where specific "weights" are assigned to individual servers depending on each server's performance capabilities. The more heavily weighted TFTP servers receive more client requests than the less heavily weighted ones.

Operational efficiency was also increased with Broadband Command Center's capability to dynamically generate device configuration files. Files were created upon receiving service requests based on up-to-the-minute customer information such as service speed, quality, or device MAC address. Broadband Command Center's ability to produce configuration files on-the-fly greatly minimized configuration files maintenance.

Broadband Command Center integrated directly with Insight's outsourced billing system, ICOMS, via its Advanced Services Activation and Provisioning System (ASAPS) middleware. ASAPS receives work orders from ICOMS and translates the commands into a format understandable by Broadband Command Center. This communication between ASAPS was made possible with the robust CORBA-based API system and CLI contained within Broadband Command Center.

ASAPS also automated self-registration for some of Insight's subscribers. When first-time subscribers turn on their cable modems and self-register their devices, Broadband Command Center would limit their Internet access to a single web sign-up page. After the subscribers entered the required information into the web-based form, ICOMS would pass the new configuration information to Broadband Command Center via ASAPS. Upon approval, Broadband Command Center would transfer the appropriate configuration file to the consumer premise equipment to enable full Internet access to the end user.

## Results

Insight Communications has now completed the upgrade of its high-speed data services, and has not experienced the degree of service disruptions it experienced in the past. It is ready to offer advanced multimedia capabilities to an increasing numbers of customers, who will benefit from the convenience of always-on, always-available Internet-based services.

## Recent Updates

Insight's customer base has been growing rapidly, and recently, to accommodate increasing network loads in one of its service areas, a portion of the services on a server had to be migrated onto a separate server. Incognito is working closely with Insight to lead them through the entire implementation process and ensure that their operations continue to run smoothly and efficiently while changes are taking place.