



Birds-Eye Network Services

Nonresponders Datasheet

www.birds-eye.net/diagnostics/nonresponding_stb

Non-responding set top boxes (STB) are a constant source of pain for most cable operators. A Non-responder represents a STB that has been physically moved and/or improperly re-connected within the subscriber's home such that critical two-way communications between that STB and its controller are impeded. On a monthly basis, between 5-10% (or more) of a cable operator's STBs are non-responding. When STBs are non-responding the cable operator is unable to complete purchase polls on these boxes and thus unable to retrieve pay-per-view (PPV) purchases made by the subscriber that are stored on his/her STB.

The Problem

When PPV purchases are not collected within the month they are purchased, the cable operator not only misses out on collecting timely revenue but also incurs significant expense trying to resolve this matter manually. If not resolved, non-responding boxes can change from delayed revenue to lost revenue when any purchases made are not collected before their program IDs are recycled. Non-responding STBs also represent lost revenue potential, as the most common procedure is to disable PPV on these STBs until their issues are resolved. In addition to this lost revenue, the cable operator incurs significant expense to resolve these non-responding STBs including phone calls to the subscriber and possibly a mandatory service call.

Orphan purchases are also a product of non-responding STBs. Orphan purchases are PPV purchases made on STBs that have been recovered during service calls and subscriber terminations but can no longer be associated with an active account or its correct program ID. As a result, these purchases cannot be recorded/billed and are either written off or forgotten.

Resolving non-responding STBs is generally a manual process where by cable operators run a report on their conditional access system and then have

some organization work this list of boxes. Each non-responding STB is pushed through a manual process by personnel with limited access to technology and resources to automate this task. The non-responding resolution process includes disabling PPV services, phoning the customer, disabling the STB (which effectively terminates service), and scheduling a service call that can take between 15-30 days on average to complete. A number of cable operators no longer disable the STB as part of the resolution process which results in extending resolution times beyond a month and increasing the likelihood that not all PPV purchases stored on the STB will be collectable.

Birds-Eye Automated Solution

Birds-Eye Network Services understands non-responding STBs and has developed an automated system that not only decreases the number of STBs that require manual intervention but also provides unprecedented intelligence that exposes an increasing number of issues that cause non-responding STBs. Birds-Eye software currently supports the Motorola STB platform which includes the DAC, RPD, and DCTxxxx STBs including (Motorola HDTV STBs). Our software helps cable operators analyze their STB non-responder resolution process and make great strides towards enabling cable operators to reach non-responding rates of 1-2% of all their STBs.

While current manual processes are capable of decreasing non-responding rates down to the 2-5% range, that improvement requires a significant personnel commitment to achieve. In fact, the level of effort needed to bring non-responding STBs below 5% increases exponentially with each percentage of improvement. Most cable operators cannot economically antae up this many resources to manage these non-responding lists and thus fall into the 5-10% (or more) range. Some cable operators refuse to manage the list at all or simply disable PPV services and until such time a service call is required at the subscriber's residence.

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By The Numbers

A cable system with 100,000 digital STBs and a 7% non-responding rate is trying to manually resolve around 7,000 non-responding STBs on a monthly basis. Since this is a monster number of STBs to handle manually, cable operators only worry about the top 5-20% of those (perhaps a 200 to 1,000) who are considered over due (chronic) and thus focus their efforts on resolving those STBs. Using industry accepted numbers for PPV purchase rates and customer take rates (revenue per customer \$12, cost 50%, average take rate 2.5 per customer), these 7,000 non-responding STBs represent ~\$42,000/month (net profit) in lost revenue potential during the time when these STBs have their PPV disabled. Since 20% or more of the stored purchases on these STBs become orphan, that represents another ~\$8,400 in lost net revenue. In addition, 5% or more of these STBs turn chronic (non-responding for 20 days or more) which translates into an expense up to two phone calls each (~\$9,800) and in 30% of the cases results in a mandatory service call (~\$7,350) for a total expense of about \$17,150. If all net revenue and expenses are taken into account, each non-responding STB represents a cost to the cable operator of about \$9.65/month. So a 100,000 digital STB system with a non-responding rate of 10% is costing that cable operator about \$96,500 a month (almost 1.2 million a year) in lost net revenue and expenses.

Proactive vs. Reactive

Birds-Eye Network Services has carefully studied the problem of non-responsive STBs. Our solution was developed and deployed on-site at a large cable operator with over 170,000 digital STBs in service. To this day we continue to evolve our solution by expanding the scope of automation, STB tracking features, and alternative intervention techniques.

Current cable operator intervention is completely manual including the process of generating the list of STBs to be worked for non-responding. Birds-Eye Network Services works on various levels to automate these processes and adds additional tiers of intervention prior to those that still require warm bodies to complete. However, with our software the number of non-responders that require manual intervention is greatly reduced before it falls within

visibility of the cable operator's manual efforts. We do this by exploiting our unique expertise in non-responding STB management that is incorporated into the logic of our software.

While current cable operator intervention can and does resolve non-responding STBs, this solution will never be more than reactive. With so many STBs to resolve and so little resources to work with, current cable operator intervention just cannot ever get ahead of this problem. As a result, the work of resolving non-responding STBs just continues to build and cable operators do their best to keep up with this work.

Birds-Eye Network Services can help cable operators find issues that create non-responding STBs before they turn into chronic non-responding STBs. We also automate other manual processes and provide a wealth of data related to individual STBs to help track other less obvious causes of non-responding STBs like equipment malfunctions and even the skill and attention to detail of individual installers and service technicians.

Non-Responding Experts

Birds-Eye Network Services knows the limitations of manual non-responding resolution efforts and has the software cable operators need to maximize the capabilities of the personnel they devote to this task while maximizing the revenue potential of having as many STBs with PPV enabled as possible. Birds-Eye software solution has the following requirements:

Minimum Hardware/Software Requirements:
Microsoft Windows PC w/ NT, 98, 2000, XP
40MB (or more) of available hard drive space
1 Gig Hz+ processor
1Gig RAM
Web server installed (IIS, Apache, or PWS)
MySQL 4.0.14 or higher (shareware database)
Network connectivity with CAS

Give us a call today to see how you can lower your non-responding STB rates in route to increased profits and reduced expenses. We have the software and expertise you need to unleash hidden revenue within your network.