ASSIA

Profile Optimizer

Highlights

- Optimize the balance between improved speed and line stability

- Clearly define and enforce business logic across the network automatically

- Proactively manage to avoid customer complaints and technician call outs

- Support new and innovative DSL broadband technologies

- Reduce customer call rates by up to 28 percent

- Reduce dispatch rates by more than 30 percent

Leverage existing DSL networks to offer higher speeds

As consumer demand for innovative services and higher speeds continues to rise, service providers are challenged to drive even greater performance from existing copper networks. This increased pressure on existing networks can result in increased operating expenses due to the effects of greater line sensitivity to interference, more call outs and higher customer dissatisfaction. In today's high-speed world, this can translate to increased customer churn, and an inability to compete efficiently or take advantage of additional revenue opportunities.

Optimizing the balance between improved speed and line instability becomes virtually impossible when the full force of factors that can impact DSL network performance are taken into account, for example, radio transmissions, weather, DSL usage patterns, near-by appliances and neighborhood construction. DSL Expresse Profile Optimizer (PO) has been designed to help service providers clearly define and proactively enforce business

logic across the network automatically, regardless of hardware platform, and optimize this balance.

From reactive to proactive network management

DSL Expresse Profile Optimizer uses data collected by DSL Expresse to determine if the line is performing according to customized business rules (for instance, speed range, stability, and service quality requirements) as defined by the service provider. It then automatically adjusts line parameters to ensure these rules are met (see Figure 1).

This proactive approach to DSL network management is what fundamentally sets DSL Expresse apart from other management tools, which are mainly focused on diagnosing customer complaints. ASSIA calls this key proactive feature, "automatic repair." Based on Dynamic Spectrum Management (DSM) technologies, pioneered by ASSIA, this feature helps reduce operating expenses by simply avoiding customer complaints in the first place. Figure 2 and Figure 3 show some examples of savings generated by ASSIA customers who have fully leveraged PO.
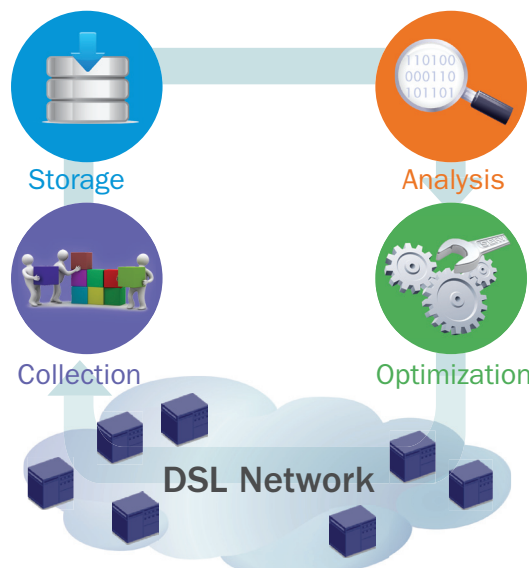

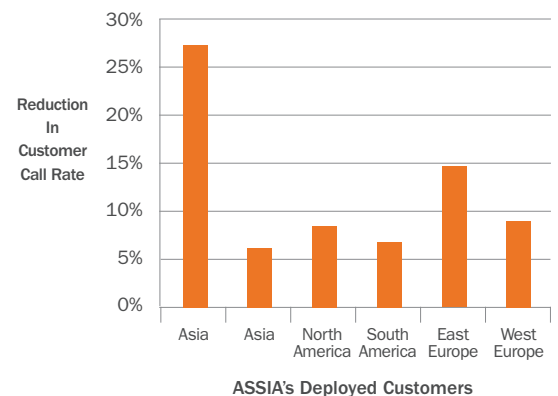**FIGURE 1.** DSL Expresse Improves DSL Network Stability

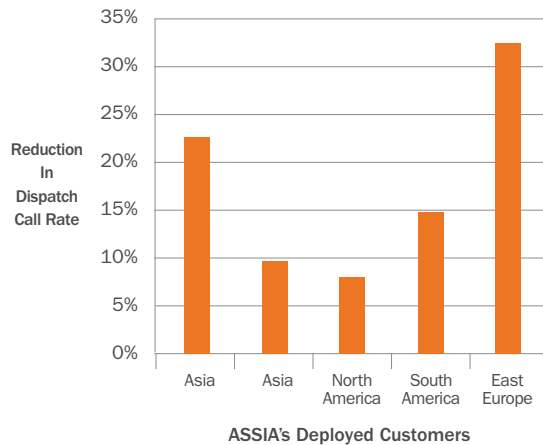**FIGURE 2.** ASSIA Customers Show Call Rate Reductions of up to 28%

FIGURE 3. ASSIA Customers Show Significant Dispatch Reductions

Automatic large scale multi-vendor re-profiling

The traditional approach to managing DSL stability issues has been for the DSL technician to leverage so-called "golden profiles," which are supposed to resolve the current issue. However, there are many important considerations that are not addressed by this approach:

- Due to the ever changing nature of a DSL network and its surrounding environment, the best DSL configuration today likely will be different in the near future. Setting a static profile on a line may trigger a repeat call and result in a dissatisfied customer.
- Every single line in a DSL network is different and performs differently under the same configuration. It is unrealistic to expect that a few set of profiles can fit and fix all network issues.
- Even in a situation where these profiles are defined, adapting them to all the hardware platforms deployed throughout the network and inputting them manually into the DSLAMs for all the lines requiring modification (assuming such lines were easily identified) requires excessive manpower and dramatically increases operational costs.

DSL Expresse PO resolves all these challenges by constantly scanning all lines in the network (proven up to 20 million lines per day), identifying DSLs with a profile that needs to be updated and automatically optimizing them during the appropriate maintenance window. This occurs regardless of the number of lines flagged for re-profiling and the DSLAM platform.

ASSIA DSL Expresse supports more than 60 different DSLAM types today, and can provide supplementary DSLAM support based on

requirements. Since this all happens automatically, the service provider is able to realize the entire optimization value from day one without extensive staff training.

Your copper is unique

As networks have evolved, companies merged and technologies changed, many service providers now operate outside plant with unique characteristics and highly specialized needs. Variables might include the types of DSLAM deployed and their many versions, multiple customer equipment providers, service products, copper gauge, and other DSL technologies installed.

Each one of these distinctions presents its own set of limitations and requirements that DSL network management platforms must be able to handle. Unless all these elements are properly taken into account, only a limited proportion of DSLs may be positively affected, and the full return on investment may never by fully realized.

The rich capabilities in DSL Expresse PO include:

- A dedicated and unique stability definition for every single service product.
- Specific and careful design of all profiles to manage network equipment limitations and performance.
- The customization of the optimization engine for each service product, DSLAM type, CPE type, line card.
- Support for multiple firmware version levels.

Real-Time Optimization

A key advantage of DSL Expresse PO is its ability to identify the best profile for a DSL in a given environment. However, it may take several iterations and fine tunings over many days to ensure that the profile identified is truly the best for this line. Such timing is unfortunately incompatible with the time constraints a contact center agent or field technician faces when trying to resolve a customer complaint. To close this time gap, ASSIA offers a real-time version of its award-winning Profile Optimizer. Now call centers can leverage DSL Expresse Real-Time Profile Optimizer to automatically resolve simple profile configurations issues while the customer is on the call. This feature spares the agent from having to guess the best profile, potentially avoiding a dispatch, and helping to reducing operational costs. Also, the technician in the field can leverage the Real-Time Profile Optimizer capabilities once a line issue has been resolved to identify and automatically apply the best profile based on the new line conditions.

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