



CASE STUDY

Needs Assessment and Business Process Reengineering

Multi-phased solution increases productivity and profitability at a New Jersey quarrying company

Background

Pinnacle Materials Inc. mines and distributes sand, soil, and stone aggregate products to commercial and private customers throughout New Jersey. The company is headquartered in East Brunswick and maintains two satellite facilities in Glen Gardner and Barnegat.

A client of Trinity Worldwide Technologies referred us to Pinnacle, whose then technology provider had been unable to resolve a critical issue with a workstation at one of the remote locations. Our team met with Pinnacle's management, assessed the situation and resolved the issue quickly and cost-effectively. In the course of this engagement, we gained an understanding of Pinnacle's technology environment and workflow issues. Pinnacle developed an appreciation of our capabilities and Pinnacle's owners invited Trinity to review the state of the company's technology and make recommendations for improvements.

Business Drivers and Issues

Pinnacle's managers believed that their operation could be more effectively run with the addition of new technology. They had both communication and processing issues within the main office and the remote facilities that ultimately impacted logistics and customer service. Pinnacle had not moved forward with changes because they did not have the expertise to determine which technology best suited their needs and would effectively link the three sites within budget parameters. More important, Pinnacle had in place an industry-specific, legacy system that would not easily integrate with newer technology. This DOS-based system handled order entry, accounting, inventory control and billing. The company's workflow was built around this system.

The Trinity Solution

Pinnacle expressed a need for general improvements rather than specific changes. Thus, we executed this engagement in a phased approach:

- Phase 1: Needs assessment and IT Plan
- Phase 2: New technology implementation and integration with legacy system
- Phase 3: Business process reengineering

The needs assessment was performed as a distinct project phase. Phases 2 and 3 were closely intertwined and implemented simultaneously.

Phase 1: Needs Assessment and IT Plan

We worked with Pinnacle management and staff to understand and document the current state of their technology and business operations. We discerned their specific business goals and developed and documented their desired growth plan. Once we had clear current and future state documents, we performed a gap analysis. The results of this analysis became the IT Plan that defined the steps that Pinnacle would need to take to obtain the desired growth. This included recommendations for implementation of specific technologies as well as for adoption of new ways of communicating, knowledge sharing, and processing business.

Phase 2: Implementation of New Technologies

We upgraded Pinnacle's IT infrastructure to link the three locations, improve communication, security, and data transfer capabilities. Our solution:

- Streamlined workflow and communications
- Provided high-speed communication between sites through Virtual Private Network (VPN)



- Upgraded order processing from a dial-up, daily file run to high-speed auto file transfer between HQ and remote location
- Cut phone costs from 50 to 80 faxes per day per location by using remote print function
- Upgraded corporate e-mail from AOL to more professional looking name@pinnaclematerials.com
- Implemented MS Windows technology that works with the legacy, DOS system
- Improved data security through implementing server file permissions, auto backups, anti-virus, and static PC initialization

Phase 3: Business Process Reengineering

The addition of the new technology presented an opportunity to introduce significant efficiencies into this client's workflow. We worked closely with Pinnacle's management and staff providing training and adaptive skills to ensure they realized the full potential of their new technology. For example, part of the newly implemented IT infrastructure was providing the home office and one of the remote offices with high-speed Internet access (high-speed Internet was not available at the other remote office), and setting up a Virtual Private Network connection between the two locations. With that in place, we implemented the following process improvements that cut costs and increased efficiencies:

- Automatic nightly backup of remote office's database to the central server at HQ
- Reconfigured slow dial-up file transfers of order data between HQ server and remote office into direct high-speed transfers, automating and simplifying many of the steps.

- Modified daily End-of-Day processing at remote location to automatically print its reports at HQ's network printer. These reports used to be printed at the remote office and couriered to HQ.
- HQ faxes 50 to 80 order sheets to the remote locations daily. Provisions have been made for HQ to print these orders directly to the remote location printer.

The Outcome

The Trinity Solution has provided Pinnacle Materials with a more stable, secure, and high performing technology environment that will be scalable to support the company's planned growth. Upgraded e-mail has not only improved internal and external communication, but also has enabled our client to present a more professional corporate image to their market. The improved workflow has enabled Pinnacle to deliver better service to customers and to allocate human resources more effectively across the organization.

Throughout this engagement, we remained acutely aware of the level of technology proficiency and comfort of our client's staff. We selected technology and introduced it in a way that ensured maximum use of both hardware and software. Our successful integration of new technology with legacy systems leveraged our client's prior investment.

Pinnacle has retained Trinity to provide ongoing technical support, further cementing our position as a trusted IT partner.

