



Business at the speed of light

When a billion dollar engineering and infrastructure project management firm needed improved field communications and data gathering systems, NetFuzion answered the call.

Client Challenges:

- Increase lab through-put rate and generate more rapid reporting to customers
- Streamline the data gathering and reporting processes to increase the efficiency of over 200 field employees without adding new support staff
- Find a way to take data in the field by hand-held device to quickly transmit information to a lab, offer rapid results to customers and reduce the reporting errors and omissions
- Improve customer satisfaction with timely reporting and data accuracy
- Continually leverage differentiation as industry leaders and innovators in bidding situations and establish preferred vendor status with Department of Transportation
- Increase business development opportunities with new prospects and current customers

Client Background:

The client company is a world leader in technical services and project management, with over 22,000 employees spread across 40 countries. They deal in a variety of industries including oil and gas, power and utilities and transportation. Their transportation expertise spans 50 years and includes airports, rail and highways. Because of their long track record and position as a world leader in this sector, they strive to continually differentiate themselves, asserting, *"We incorporate the latest technologies into our design and construction... We also involve our strategic suppliers early in the project to deliver added innovation at every point in the supply chain, from the use of new materials and techniques, to streamlining systems for faster project delivery."*

Consistent with their pledge to innovate and streamline, the Client believed there was a system that could allow it to perform faster and more accurately on highway projects. Specifically, the Client wanted to assess its procedures for evaluating the integrity of concrete, soils and asphalt used in highway construction projects and subsequent testing at its laboratory. The Client also suspected that its data, which was housed in several Access databases, was inadequate for the complex calculations and analysis required as well as difficult for its customers to access and use easily.

Part of the challenge for the Client was to ascertain whether streamlining was feasible. Additionally, the Client sought to accomplish increased sales and improved performance without the burden of hiring, training and funding new data entry clerks to support the increased rate of information from the field. Finally, the Client wanted to uncover a solution that offered its customers quicker and easier access to their testing information.

The Client began to analyze its organizational procedures for data gathering and reporting. The Client found several inefficiencies affecting not only its own operating costs but customer satisfaction as well. The Client's field employees had been taking data by hand and then submitting their notes to data entry clerks, sometimes days or weeks after the data was originally taken. The clerks would then have to decipher the handwritten and sometimes-incomplete information. These complications resulted in delays in making data available for customers as well as increased operating costs for the Client.

Upon further scrutiny, the Client realized that the data taken in the field was being handled and re-handled by the same few people for submittal, corrections, approvals and sign-off. This created unnecessary paper transfers as well as time-consuming bottlenecks at the data entry level, where clerks could not keep up with the existing level of paperwork nor could they process the new data that was being collected. This antiquated and cumbersome process caused serious delays in reporting as well as an unacceptable level of operational performance. Most importantly, the Client recognized that the inefficiencies affected its customer satisfaction and caused struggles when competing for new business against other contractors.

NetFuzion Solution:

The Client and its third-party consultants had a vision that their data gathering and data entry issues could be remedied using a Nextel Blackberry™. They believed that by having their technicians input the data while still in the field, that they could minimize transcription, errors and, most importantly, time to delivery to the customer. The Client searched for providers who could see its vision and implement the solution. The Client found NetFuzion.

NetFuzion began by traveling to a few of the Client's key sites to understand the challenges and inefficiencies. They were able to identify first-hand the operational and technological issues that The Client was facing. NetFuzion confirmed the Client's ideas about the Blackberry™ as the ideal data collection device because of its capabilities and ease of use. Then NetFuzion went a step further by designing a custom database to replace the ineffective Access Databases so that the Client's customers could login and see reporting in real-time and oversee their projects more effectively.

In particular, NetFuzion initiated development of a new web-enabled MYSQL database along with Java and HTML to replace the inadequate Access databases. With the new system, as field and lab data are entered into the MYSQL database, many complex calculations are performed instantly to generate the final test results. Those results are then available, in real-time, to the Client's customers via reports generated from the NetFuzion web portal.

On the data collection side, two J2ME Blackberry™ applications were developed for the nearly 200 field technicians. One application dealt specifically with the Client's concrete testing and the other application was for soils and asphalt testing. With both applications, the data entered into the Blackberry™ replaces the handwritten, paper data sheets used in the field. Once the data is entered into the Blackberry™, the data is delivered via cell transmission into the NetFuzion web-enabled portal in real-time. The Client's labs then evaluate the concrete, soils and asphalt samples taken in the field and enter any additional data into the database derived from these lab test results.

By implementing this advanced data collection and reporting, the Client is now operating with tools and systems unlike any others used in their industry.

Client Benefits:

The Client has seen enormous benefits from using the NetFuzion system – and continues to generate ROI from the solution through a valuable combination of increased sales and decreased operating costs.

The new data gathering process using NetFuzion's custom Blackberry™ applications and MYSQL database enables the Client to accomplish the following:

- **Significantly increase the rate of information transfer** – Results are sent to the portal in real-time and can be accessed by the Client's lab immediately for additional testing.
- **Produce reports up to 90% faster for the customer** – Reports that used to take the Client two weeks to deliver are now prepared and viewable in 1-3 days.
- **Increase the efficiency of existing support staff by nearly 50%** – NetFuzion's system streamlined the overall process and in turn reduced the transcription workload and eliminated the re-handling of paper allowing the data entry clerks to take on more technicians. With NetFuzion's solution, clerks could keep pace with 30 field technicians versus only handling 16 techs before the change.
- **Minimize errors** – Because the results are typed on the hand-held device keyboard instead of hand-written, the data no longer has to be transcribed making it more reliable.
- **Reduce omissions by almost 100%** – With the new system, field staff is prompted to enter data for every field and cannot submit incomplete reports.
- **Leverage an important differentiator in the bidding process** – Contracts in this particular industry are often awarded not just on price but

on a combination of key factors, including rapid turn-around time as well as proven innovation. With NetFuzion's system, the Client can offer both.

- **Stimulate interest with sales prospects** – The new technologies add to the Client's value proposition for new prospects. Sales teams can also use the cutting edge tools as a great way to cultivate new business opportunities with existing and pending accounts.

The Client's web portal offers additional benefits.

- Web-enabled database viewable at any time from any browser worldwide
- Real-time availability of information for the highest level of Quality Assurance
- Complex equations performed on-the-fly by the database as the data is entered
- Data that is organized and accessible in a stable and secure environment

Enumerating the Client's ROI:

\$471,680	Increasing clerk efficiency; eliminating the need for new staff
\$10,000,000	Projected new business based on jobs won since implementing NetFuzion's new portal system
\$1,000,000	Conservative profit estimate on new jobs won as a result of NetFuzion

The Client has already won ***\$10 million*** in additional revenue as a result of the NetFuzion System.

NetFuzion: Improving Productivity and Profits