

WAVETRONIX



Integrity

Innovation

Quality



Company Profile

WAVETRONIX™



Wavetronix LLC
380 South Technology Ct.
Lindon, UT 84042
USA

Wavetronix, SmartSensor, SmartSensor HD, SmartSensor Advance, Digital Wave Radar, SafeArrival, Command Data Appliances, Data-Collector, DataTranslator, DataMonitor, Click!, Simple Connectivity, and all associated logos are trademarks of Wavetronix LLC.

All other product or brand names as they appear are trademarks or registered trademarks of their respective holders.

SmartSensor is protected by U.S. Patent Nos. 6,556,916 and 6,693,557. Other U.S. and international patents pending.

The Company shall not be liable for any errors contained herein or for any damages arising out of or related to this document or the information contained therein, even if the Company has been advised of the possibility of such damages.

This document is intended for informational and instructional purposes only. The Company reserves the right to make changes in the specifications and other information contained in this document without prior notification.

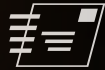
© 2007 Wavetronix LLC. All rights reserved.

Contact Wavetronix for more product information.



Online

Visit our web site at
www.wavetronix.com



Email

Email us at sales@wavetronix.com.



Telephone

Call Wavetronix at (801) 764-0277.



Authorized Dealers

We'll set up a meeting with you and an authorized Wavetronix dealer to deliver product information in person.



Demos

Product demonstrations are available on request. Call or email today!

About Wavetronix

Wavetronix designs and manufactures products for the ITS and traffic management industries. Its products are divided into three product categories: the SmartSensor™ line of non-intrusive radar traffic detection devices, which uses patented and exclusive technologies to detect traffic and generate consistently accurate data; the Click!™ power and communication modules, which make the connections needed to keep data flowing; and the Command line of data collection and management appliances, which help users make sense of the data they've collected and provide important interfaces between the data and end-use applications.

2

Overview
Product Release Timeline

4

Profile
People Inspiring Confidence

8

SmartSensor
Being Sensor Smart

10

Command
The Power to Command

12

Click!
The Simple Connectivity of Click!

CMD
DATA APPLIANCES



MILE
2004

MILE
2001

MILE
2002

2003 -
DataCollector



DataCollector

WAVETRONIX™

2000 -
Company founded
in Utah

2002 -
SmartSensor



MILE
2003



2003 -
100 Series:
Contact Closures



Click!
SIMPLE CONNECTIVITY™



WAVETRONIX™

Product Release Timeline

MILE
2
0
0
6

2005 -
DataTranslator



DataTranslator

2006 -
DataMonitor



DataMonitor

2007 -
DataCollector
Version 2.0



DataCollector 2.0

2005 -
SmartSensor Advance



2006 -
SmartSensor HD



2004 -
200 Series:
Power Mgmt.



MILE
2
0
0
5

2005 -
300 Series:
Wired Comm.



2006 -
400 Series:
Wireless Comm.



MILE
2
0
0
7

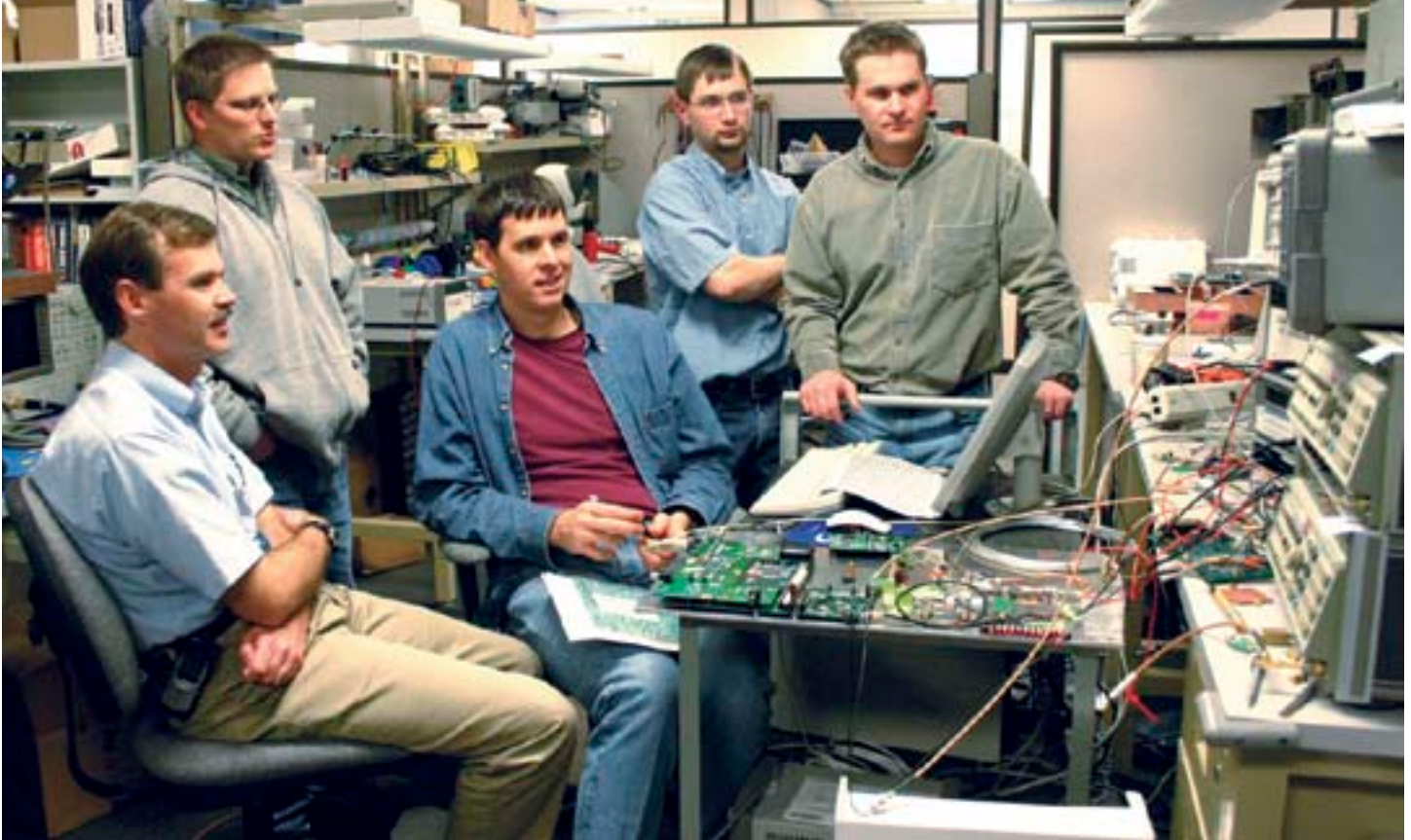
2007 -
500 & 700 Series:
Traffic Apps. &
Fiber-Optic Comm.



PREPARE FOR
BRIGHT FUTURE
AHEAD

People Inspiring Confidence

Wavetronix employees lead with integrity, innovation and a commitment to quality that has produced the most accurate and reliable products in the ITS and traffic management industries.



THE PEOPLE WHO work at Wavetronix are fiercely loyal. Ask any Wavetronix employee why they are proud to work for this company and they will answer, almost unanimously, that they have never worked for a company like this one before. Employees and customers alike are attracted to Wavetronix because of the company's commitment to producing the highest quality products possible; because of its commitment to innovation and desire to remain at the leading edge of technology; and because of the company's unflinching and uncompromising integrity. Each employee contributes to that company philosophy, resulting in products that outperform competitive devices on every level.

As a company, Wavetronix designs and manufactures products for the ITS and traffic management industries. Our products are divided among three product families, each dedicated to fulfilling a particular need or application: the SmartSensor™ line of non-intrusive radar traffic detection devices, which uses patented and exclusive technologies to detect traffic and generate the consistently accurate data ITS and traffic management systems need to positively affect traffic; the Click!™ power and communication modules, which make the connections needed to keep data flowing; and the Command line of data collection and management appliances, which help users make sense of the data they've collected and provide important interfaces between the data and

end-use applications. Each product is built to the highest standards and rigorously tested to ensure the best performance under even the harshest conditions.

Wavetronix in-house products are created and built on a foundation of research and technology that encourages constant innovation. Product development is driven by talented engineering teams with research and real-world experience in radar, electrical engineering, computer science and Internet technology. Never satisfied, our engineering teams are continuously responding to industry needs and customer feedback to produce technologies that are having a substantial impact on traffic detection, control and management. These innovations have placed Wavetronix at the forefront of the world ITS and traffic management markets, and the unmatched performance of our products has raised industry expectations for the detection, collection and management of traffic data.

Perhaps the most important attribute of Wavetronix is the integrity with which it does business. In the seven short years since the company was founded, Wavetronix has earned a reputation for dealing honestly with employees, customers, and other transportation industry professionals. Wavetronix stands behind every product it produces, backing them with proven claims. The performance, durability and reliability of each product has

been verified through extensive third-party testing, and Wavetronix makes test results available upon request, even if test results aren't quite what we'd like them to be. Customers appreciate that level of integrity, and consistently select Wavetronix over competitive devices simply because Wavetronix products do exactly what we say they will, not just theoretically or under optimal conditions, but under the true operating conditions that exist at any given location. And Wavetronix mirrors that product integrity with the commitment and performance of its people; our employees do what they say they will and are committed to the promotion and support of every product we sell.

The Wavetronix History

The story behind Wavetronix begins with Dr. David Arnold, company founder, president and CEO. Dr. Arnold is an expert in radar and holds a doctorate degree in electrical engineering from the Massachusetts Institute of Technology. He is also a successful businessman, having co-founded a software development company whose line of CAD tools is currently marketed by Agilent Technologies.

In 1999, Dr. Arnold was given the opportunity to apply his expertise in radar and electrical engineering to a new business venture. He researched radar applications in different industries and discovered that radar was an under-utilized technology in the intelligent transportation systems

market. ITS was just gaining momentum as a worldwide initiative, and Dr. Arnold recognized several advantages that radar would have over traditional traffic detection methods: as an above-ground detection method, radar would be easier and less expensive to install and maintain; radar would have a greater range of detection; and he knew radar would continue to operate effectively under a range of conditions, including changes in weather, temperature and light.

The first detection devices to employ radar for vehicle detections were produced in the early 1990s, but they were bulky units with off-the-shelf radar components that were not designed for traffic applications. The performance of these first generation devices was adequate but not stellar, and they required a difficult and precise installation and alignment process in order to



provide optimal results. Dr. Arnold determined that a radar technology designed and manufactured specifically for traffic detections and combined with technologies to simplify the installation process, would provide more accurate results that would be of greater benefit to ITS and traffic management applications.

Arnold co-founded Wavetronix in September of 2000, and immediately began assembling an engineering team with the knowledge and skills this new venture would require. Two years of exhaustive research, experimentation and development led to the creation of the Wavetronix SmartSensor, a non-intrusive detector that employs our unique Digital Wave Radar™ technology and a process for auto-configuration that still leads the industry in reliability and consistency; both of these technologies have been patented and are currently unmatched in the industry. SmartSensor represented the second generation of technology for radar vehicle detection, and it has consistently outper-



formed its competitors since it officially debuted in August 2002.

Once SmartSensor was in place, it quickly became apparent that there were other needs in the ITS and traffic management industries that were not being filled. Market research and customer feedback indicated a need for an efficient way to collect and manage SmartSensor data; Wavetronix engineers went to work and developed the DataCollector™, an out-of-the-box, Web-accessible server and database that retrieves data from a network of sensors. DataCollector debuted in May 2003 and quickly evolved into the current appliance, which features a driver library that interfaces with a number of different detection devices. Soon it expanded into the Command line of products, which includes DataTranslator™, a data translation and interface appliance; and DataMonitor™, which monitors incoming data and triggers alerts and reports about any problems detected anywhere in the network.

Simultaneously, Wavetronix discovered a need in the industry for reliable power and communication solutions. Specifically, our customers indicated they wanted a way to interface SmartSensor with their existing contact closure technologies, and a way to protect their equipment from power surges that are a common problem for in-the-field devices. So our engineers designed and developed Click! power and communication devices, which also debuted in May 2003. The Click! line has grown rapidly, and today it consists of contact closure devices; power and surge protection modules; and devices for both wired and wireless communications.

As these complementary product lines have grown, Wavetronix has continued to research and develop new uses for radar. In 2005, Wavetronix released the SmartSensor Advance, a second generation device that applies SmartSensor's patented and exclu-



sive technologies to intersection control applications. Today, SmartSensor Advance also features our exclusive SafeArrival™ technology and provides unparalleled protection for the intersection dilemma zone that can be used to improve the efficiency, as well as the safety, of intersections. And in 2006, Wavetronix unveiled the SmartSensor HD, the third generation of radar technology that offers five times the resolution of previous technologies for greater accuracy and improved performance. SmartSensor HD provides highly accurate, high-definition detection of vehicle presence, occupancy, average speed, individual vehicle speed, classification, average headway and average gap from up to 10 lanes of traffic simultaneously, over an extended detection range of 250 feet. And our research and development continues, which will allow Wavetronix to maintain its position as the leader in innovation for its chosen markets.

In its seventh year, Wavetronix has employees around the world. Company headquarters are located in Lindon, Utah, with additional domestic sales offices located in Florida and Maryland; Wavetronix also has an international presence, with an office located in Beijing, China. In addition to products marketed in North America and Asia, Wavetronix has also partnered with Image Sensing Systems, Inc. to market SmartSensor in Europe as the ISS Autoscope® SmartSensor. And the company has entered into several other strategic partnerships to bundle Wavetronix devices with other high quality products for even more innovative applications and solutions.

People Make the Difference

Despite our many successes, the one thing that differentiates Wavetronix most from its competitors is the people that work here. Each department employs people with the highest qualifications and years of combined experience, and each department contributes to the quality, innovation and integrity that make Wavetronix unique. From engineering and manufacturing to sales and marketing and technical support, the reputation Wavetronix enjoys is a direct result of the hard work and dedication of its people.

Engineering

Wavetronix is, first and foremost, an engineering company. Engineers make up

our greatest resource, and their years of experience, combined with their commitment to quality and innovation, are the company's greatest asset. Thomas Karlinsey



“We’re all perfectionists and none of us like doing products half-way. We want to get it right, and our products end up being high-end and innovative because of that.”

—Thomas Karlinsey
Wavetronix Senior Engineer

sey, a senior engineer at Wavetronix and chairman of the SmartSensor Product Management team, says Wavetronix engineers have a thorough understanding of our markets and the roles our products play in improving the safety and efficiency of roads. That knowledge, combined with the team's commitment to quality, is one thing that differentiates Wavetronix from other companies, according to Karlinsey. “Wavetronix employees make a high personal investment, because we all care so much about the company and the success of our products,” Karlinsey says.

The Wavetronix engineering team is also incredibly responsive, answering the needs of customers and our chosen industries with innovative products and solutions that consistently prove to be the best in the market. Karlinsey appreciates the fact that each employee has a voice in determining the best course of action. “From the design and implementation of

ideas to identifying and solving problems, everyone at Wavetronix has a chance to offer their input,” Karlinsey says. “On top of that, we’re given a great deal of flexibility to figure out what we’re going to do and how we’re going to do it. That’s not always the case in engineering companies.”

Finally, Wavetronix engineers don't simply want our products to work, they want them to work well, and they are dedicated to providing the most accurate and reliable products possible. Karlinsey believes this stems from the commitment each employee has to the success of the company and its customers. “We’re all perfectionists,” he says, “and none of us like doing products half-way. We want to get it right, and our products end up being high-end and innovative because of that.”

Manufacturing

Wavetronix products are manufactured to the strictest specifications, and each product is thoroughly tested to ensure proper performance. Don Christensen, production manager and Director of Quality Systems at Wavetronix, believes our manufacturing processes are the key



“There is a high level of trust and accountability here, and I think it enables me to use my experience and knowledge to help make the company better.”

—Don Christensen
Director of Quality Systems

to building quality products. “Our manufacturing team is very concerned with the quality and reliability of the products our customers use,” Christensen says. “If we build a good product with a very sound design, then we are going to ship a very solid product to our customer.”

Like Karlinsey, Christensen appreciates the flexibility he’s given at Wavetronix. “There is a high level of trust and accountability here, and I think it enables me to use my experience and knowledge to help make the company better,” he says. Christensen oversees the manufacturing process and believes it is one of the keys to Wavetronix’ success. “The decisions we make in manufacturing affect the pricing, quality and delivery schedules of our products, so it’s very important for us to have constant interaction with all departments, from engineering to sales and technical support.”

Much of the manufacturing process at Wavetronix occurs in-house, including product testing and final assembly. Christensen says the company benefits from this for a couple of reasons. “First, it provides us with direct engineering involvement. If something comes up, we have engineering resources we can immediately call on,” he says. Second, according to Christensen, it means a better product for customers. “It gives us more control over our products, so we are able to deliver products that are more reliable and of better quality.”

Technical Support

Once a product has been manufactured and shipped to a customer, Wavetronix is committed to making sure customers have the best support possible. The Wavetronix Technical Support team has become an invaluable part of our company’s success. In fact, our technical support is so good, some customers have selected Wavetronix, or have come back to Wavetronix, because of that alone; for example, the quality and efficiency of our support was one of the reasons SmartSensor was selected for the FAST project in Las Vegas, Nevada.

Ryan Lindsey has seen first hand what an asset good technical support can be. As the customer service manager at Wavetronix, Lindsey manages customer support calls and Wavetronix’ comprehensive product training program. He believes Wavetronix has earned the respect of customers because of the level of support it is willing to offer. “We don’t have any auto-



“...the tech support team works hard and takes pride in making sure customers are satisfied.”

—Ryan Lindsey
Customer Service Manager

mated responses and we don’t offer routine answers to questions,” Lindsey says. “If a customer calls in with a problem, we consider that specific problem and try to find solutions that will work for that particular customer.”

In addition to responding to problems or concerns our customers might have, the technical support team is also responsible for problem resolution; warranty issues; thorough testing and verification of each product; product documentation, including installation guides and user manuals; and training. Lindsey says the people who work in technical support are the key to his team’s success. “We’re a friendly group, and that has a huge impact on customers when they call in for support,” he says. “But beyond that, the tech support team works hard and takes pride in making sure customers are satisfied. We all seem to share a common goal for the company’s success.”

The Future

Wavetronix continues to build on its reputation. Our employees continue to research and develop new products in response to the changing needs of the traffic and transportation industries. Dr. Arnold says the company’s commitment to innovation will continue to produce new technologies, new products and new systems to positive-

ly affect traffic. “Innovation means we will continue to solve problems that couldn’t be solved before, and to create even better solutions than those that have been used before,” Arnold says. “To me, it means giving the ITS and traffic management industries the tools to do what couldn’t be done before.”

Dr. Arnold believes Wavetronix has reached a point in its maturity where the character of the company is no longer defined by one person. “At Wavetronix, everyone has caught the spirit of quality, innovation and integrity,” he says. “I’m confident that Wavetronix will always be committed to these ideals.” According to Arnold, innovation will come from each employee’s desire to be better. “None of us are content with the status quo. We will always be committed to the research and development of the best products possible,” he says. “We will never stop pushing that envelope.”

Contact Wavetronix and see for yourself why we are unique in ITS and traffic management. See the inside front cover for details.



“At Wavetronix, everyone has caught the spirit of quality, innovation and integrity. I’m confident that Wavetronix will always be committed to these ideals.”

—David Arnold
Wavetronix Founder and CEO

Being Sensor Smart

Superior technology and consistent accuracy make the SmartSensor™ family of products the best value in traffic detection.



AT THE HEART of every ITS or traffic management system is a vehicle detection device. Departments of transportation make a considerable investment in system infrastructure, and the effectiveness of any system is limited by the quality of the data collected by the chosen sensor. Although the investment in sensors may be a fraction of the customer's overall costs, the sensor is the primary driver for the system's effectiveness, and consistent accuracy is essential to produce the data required for optimal system performance.

Wavetronix understands the need for consistently accurate data. Our company's expertise in radar, combined with a commitment to research and development, has led to the creation of SmartSensor, a family of radar-based detection devices designed specifically for the ITS and traffic management industries. The consistent accuracy and setup of the SmartSensor line increases the value of ITS and traffic management systems by providing the trustworthy data needed to effectively improve the flow of traffic. Each product in the SmartSensor family is built on substantial, patented and exclusive technologies, with differences

that make each sensor uniquely suited for specific traffic applications.

Why Radar?

Bryan Jarrett, vice president of engineering at Wavetronix, says radar technology has several advantages over traditional traffic detection methods. First, radar devices operate above-ground at the roadside, so they are easy to install and maintain; inductive loops, the most common detection device, must be embedded in the road and frequently malfunction or require recalibration, making them difficult and expensive to install and maintain. Second, radar operates effectively under a wide range of operating conditions, including rain, snow, fog, and wind; dust and ice storms; and changes in temperature or light. Most detection devices, including loops, video cameras and acoustic sensors,

are negatively impacted by some or all of these conditions. And third, radar offers greater range and broader detection coverage; the detection range offered by loops is limited to the immediate area of the installation, while all other detection technologies, including video and acoustics, are considerably less effective at greater ranges.

"Wavetronix has been aggressive at discovering innovative ways of detecting traffic," Jarrett says. "I think our persistence in identifying and resolving challenges has led to the design of superior technology. We're not stuck in old technology or old traditions."

"I think our persistence in identifying and resolving challenges has led to the design of superior technology."

—Byran Jarrett
V.P. of Engineering

The company's "new way" is evident in the history of radar traffic detection. The first generation of radar devices first appeared in the early 1990s, but they utilized radar technology that had been designed for other applica-

tions; the technology was never intended for traffic detection applications, so its performance was adequate but not always accurate, especially in the presence of barriers, medians, guardrails and other roadway obstacles that might disrupt a radar sensor's performance. Also, these devices required precise installation and alignment for accuracy, so the installation process was often difficult and time-consuming.

Wavetronix entered the traffic detection market with a second generation device that was designed and manufactured specifically for traffic applications. The Wavetronix SmartSensor was the first traffic device to feature a patented method for generating a digital radar signal; this Digital Wave Radar offers more consistent performance than first generation devices, accurately detecting vehicle volume, occupancy and average speed from as many as eight traffic lanes simultaneously, even in the presence of barriers, guardrails and medians. To further differentiate

SmartSensor, Wavetronix also developed a patented auto-configuration process that automatically determines lane positions by observing traffic flow. This auto-configuration greatly simplifies the installation process, allowing SmartSensor to be installed and operational in about 30 minutes at most locations.

"Wavetronix raised the bar," Jarrett says. "We brought auto-configuration to the market, and now everyone demands it. Other companies have had to respond to compete, and that's improved the whole industry."

And while competitors are still trying to catch up to our second generation devices, Wavetronix has unveiled the third generation radar sensor. SmartSensor HD, released in 2006, is a high definition device that offers five times the resolution of earlier sensors. Greater resolution means SmartSensor HD has greater accuracy for even more consistent performance.

Measurable Benefits

All SmartSensors are designed and manufactured to the strictest industry standards, and the performance of each device has been verified through extensive third party testing. Published test results are available for review, and Wavetronix encourages all interested parties to demand published studies that show performance at a variety of locations.

Jarrett credits the dedication of Wavetronix employees with the success of SmartSensor. "There is a real standard of excellence here, and we spend a lot of time getting the design of each product right," he says. "We are constantly striving to broaden the range of products and solutions we offer, and the industry will continue to benefit from that innovation."

To learn more about the SmartSensor product family, contact Wavetronix to request a SmartSensor Product Catalog. See the front inside cover for details.

SmartSensor & SmartSensor HD Comparison

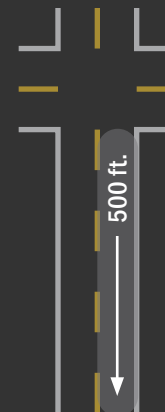


	SMART SENSOR iQ	SMART SENSOR iQ HD
Volume	★★★★	★★★★★
Occupancy	★★★	★★★★★
Speed	★★★	★★★★★
Class	★★★	★★★★★
Barrier	★★★	★★★★★
Gore	★★★★★	★★★★★
Sound walls	★★	★★★★★
Weather	★★★★★	★★★★★
Configuration	★★★	★★★★★
Lanes	8	10



= performance, = environment, = configuration

SmartSensor Advance



- Safe and efficient control
- Standard controller integration
- Queue reduction
- Dilemma zone protection



The Power to Command

A robust system design, customizable integration and out-of-the-box reliability lead to the superior performance of Wavetronix CMD.



TO BE TRULY intelligent, transportation systems need to collect, manage and distribute traffic data in the easiest, most efficient way possible. The Wavetronix Command line (CMD) of ready-to-use data appliances meets this need and provides the highest value to departments of transportation. CMD Data Appliances keep traffic data flowing, from the sensors that generate data to the applications that use the data to positively affect traffic. With out-of-the-box reliability and performance, CMD can form the foundation for new traffic management systems or seamlessly integrate with existing system architectures.

CMD began as a way to easily collect traffic data from the Wavetronix Smart-Sensor, but Wavetronix quickly discovered that traffic agencies want a complete data management system that is easy to integrate and operate; that makes collected data readily accessible for reporting and traveler information systems; and that monitors system components for problems occurring anywhere in the system. As a result, Wavetronix created the Command product line, which includes DataCollector, DataTranslator and DataMonitor. Brian Hagen, Wavetronix' chief operations officer and chairman of the Command

product management team, says Command Data Appliances create a constant flow of accurate, real-time traffic information.

"These are application-specific tools that solve very specific, real-world problems for DOTs," Hagen says. "They work very well as individual components addressing specific needs, but also together or with other subsystems to deliver data for traveler information, statistical analysis and other end-use applications."

New Approach

Gathering traffic data into one centralized location is a challenge for the ITS industry. In the past, advanced traffic management systems have been approached as custom projects that are time-consuming and expensive without providing the level of service required. "Other companies have created big, all-encompassing systems that don't easily or inexpensively adapt to meet specific needs," Hagen says. "Our goal is to provide solutions that introduce affordable flexibility and scalability to these legacy

systems, and make the resulting data more accessible and easier to use."

Out-of-the-box Performance

Hagen calls CMD a "fully supported product suite," providing out-of-the-box performance and reliability. Each CMD product is pre-installed on state-of-the-art servers that can literally be pulled from the box,

installed, turned on and operational in a matter of hours. Each product is fully tested, proven and supported by Wavetronix, and they have been designed to be fault tolerant, employing advanced techniques to keep functioning even

in the face of multiple software, network or even hardware errors. These techniques protect the integrity of the system by ensuring seamless, gap-free data.

Flexible Integration

CMD products work cohesively with existing traffic monitoring systems. Most traffic monitoring systems are created using com-

"These are application-specific tools that solve very specific, real-world problems for DOTs."

—Brian Hagen
CMD Product Manager

ponents acquired from multiple vendors over time, so Hagen says CMD products are designed to integrate all of these different components to create a seamless data management system. "Our technology is a bridge for older, existing systems," Hagen says.

The value of Command's flexible integration begins with DataCollector, which comes equipped with an impressive library of drivers. These drivers allow it to collect data from a wide variety of sensors and detection devices like SmartSensor. The value increases with DataTranslator, which can act as a bridge between data collection and end-use applications by converting data to and from multiple formats. And the Command line protects its value with DataMonitor, an application that manages system health by keeping an eye on key elements and notifying users when and where there is a problem that needs attention.

Accessible and Functional

According to Hagen, the CMD line is designed to be open and accessible. It makes data available in various formats and methods, and its Web interface supports the most popular Web browsers, so anyone with access to a network-enabled computer can manage the system. And because each CMD product can be accessed on any net-



"What we offer are ready-to-use products with built-in customization. Custom systems benefit because we provide expandability to previously closed systems."

—Brian Hagen
CMD Product Manager

work PC, users can also receive desktop alerts notifying them of problems occurring anywhere in the system.

System Expansion

Traffic management systems grow and change over time, and the CMD line is designed to grow with them. Each product

scales to handle larger sensor networks while also expanding to support new device types and data formats. CMD's flexibility and functionality can also be the avenue for agencies to expand into additional traveler information and traffic management systems. "What we offer are ready-to-use products with built-in customization," Hagen says. "Custom systems benefit because we provide expandability to previously closed systems."

End-to-End Data Solutions

CMD is an enterprise-level suite of products that work together to form a seamless, end-to-end data management solution. Hagen believes CMD is unique because of Wavetronix' commitment to innovation, and he says CMD's current product line is just the tip of the iceberg. "There is much more to come from CMD. Wavetronix invests in the technology and people it takes to get it right," he says. "We've taken risks other companies won't take, and we've been able to push the industry in new directions. That's very exciting."

Contact Wavetronix and request a copy of the Command Product Catalog to learn more about the real value of CMD's out-of-the-box collection, management and distribution of data. See the inside front cover for details.

Command Data Appliances



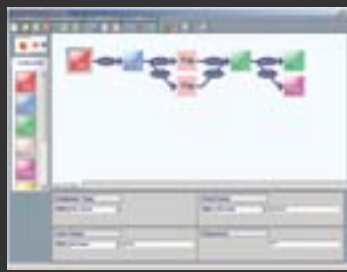
DataCollector

Forms the foundation for intelligent traffic systems by collecting and managing real-time data from a variety of traffic detection devices



DataTranslator

Bridges the gap between traffic data and end-use applications, providing a cost-effective way to deliver data to multiple entities



DataMonitor

Protects the long-term effectiveness and reliability of traffic management systems by monitoring the health of systems and roadways



The Simple Connectivity of Click!

Modular architecture, intelligent configuration tools and a broad range of easy-to-integrate products make Wavetronix Click!™ the easiest, most reliable way to build a traffic system.



WAVETRONIX CLICK!™ PRODUCTS provide the power, communications and signaling solutions needed for effective traffic control and management. Click!'s simple connectivity is engineered to simplify the design and implementation of traffic systems, and the technology behind Click! helps standardize system performance across platforms. The broad range of easy-to-use Click! products is built and tested to operate under even the harshest conditions.

Kevin Hurst, a Wavetronix engineer and chairman of the Click! product management team, says Simple Connectivity makes Click! unique in the traffic industry.



"All Click! modules are built on a common hardware platform, and they share a common configuration utility that simplifies the configuration process," Hurst says.

"This common platform also allows each module to share a common T-bus connector for power and communication between devices, so connecting up modules is very easy."

Product Family

Hurst describes the Click! line as a variety of components built to support traffic systems and communication networks. Available components include power supplies and surge suppressors; contact closure devices; and modules for both wired and wireless communica-

tions. All are easy-to-use and they integrate together quickly to form a complete network.

"We know that all Click! modules work with each other, and with our sensors," Hurst says.

Click! modules are compatible with many types of field cabinets. Click! power and surge modules are specifically designed to mount easily on a DIN rail, while the communication modules are available in three form factors: DIN rail-mountable

modules; rack cards; and 170 Controller modem cards. "This way, for most situations, Wavetronix can provide the communication interface required for most types of traffic cabinets," Hurst says.

"All Click! modules are built on a common hardware platform, and they share a common configuration utility that simplifies the configuration process,"

—Kevin Hurst
Click! Product Manager

Common Architecture

Click! devices share a modular design that improves the installation process: simply put a DIN rail into the cabinet and then “click” each module into place. According to Hurst, even the wiring has been simplified with Click!’s removable screw terminals, allowing technicians to pop out the terminal, wire the cable outside the cabinet and then plug back in the completed cable.

“Our design takes care of everything, from installation and configuration to wiring and troubleshooting,” Hurst says. “As a result, it’s incredibly easy to integrate Click! devices into existing systems, even with devices from other vendors.”

Hurst also says physically integrating Click! modules into a single cabinet can be done without cluttering up the cabinet with different-sized boxes and power supplies. “Click!’s common architecture makes it easy to upgrade or customize a cabinet without disrupting any other devices in the network,” he says.

Once the necessary Click! communication components have been installed, they must be configured to operate properly. Simple configurations are performed using the push-button mode switch on the face of each communication device. Using this button, technicians can auto-baud to a device, reset the module to factory defaults or set up a test link between modules.

Configuration Software

Occasionally, a more complex configuration may be required. Wavetronix has created the Click! Supervisor, a single Windows®-based configuration package that can be used for all Click! modules.

“Technicians only need to learn one configuration program, regardless of the type of Click! modules being used,” Hurst says.

Additionally, Click! Supervisor includes a library of custom drivers that already have the configuration settings required to communicate with specific traffic devices like the SmartSensor. Users simply select the device they want to communicate with, and Click! Supervisor configures the Click! device with the appropriate settings.

Built to Last

By the time a Click! module is installed and configured, it has been rigorously

“Wavetronix can provide the communication interface required for most types of traffic cabinets.”

—Kevin Hurst
Click! Product Manager

tested to ensure its performance and durability. After installation, technicians can verify performance by looking at the LED displays on the front of each device, or by using the diagnostic tools included in Click! Supervisor. If a problem does occur, Hurst says all Click! modules are hot-swappable, so they can be removed

and replaced without affecting the rest of the network.

According to Hurst, the common architecture also enables the Click! line to easily expand to meet new challenges in the transportation industry. “The Click! devices are very intelligent, and the common hardware platform makes it possible for Wavetronix to actively monitor our customers’ needs and to create new products that fit easily into their existing systems,” he says.

Click!’s simple connectivity makes it easy to connect up even the most complex traffic monitoring systems. Contact Wavetronix and request a copy of the Click! Product Catalog to learn more about the benefits Click! technology can bring to your system. See the inside front cover for details.

Click! Simple Connectivity Devices

Click! 100 Series
Contact Closures



- Click! 100 - 16-output
- Click! 172 - 2 channel
- Click! 174 - 4 channel

Click! 200 Series
Power
Management



- Click! 200 - Surge protector
- Click! 201/202 - Power Supply

Click! 300 Series
Wired
Communication



- Click! 301 - Serial to ethernet
- Click! 304 - RS-485 to RS-232
- Click! 305 - Serial to USB 1.1

Click! 400 Series
Wireless
Communication



- Click! 400 - 900 MHz
- Click! 401 - 802.11b
- Click! 402 - GPRS
- Click! 403 - Bluetooth

Click! 500 Series
Traffic
Applications



- Click! 510 - Length / Speed

Click! 700 Series
Fiber-Optic
Communication



- Click! 700/701 - Serial to Fiber



WAVETRONIX™

CMD™
DATA APPLIANCES

SMART
iQ™
SENSOR

Click!™
SIMPLE CONNECTIVITY

Wavetronix LLC
380 South Technology Court
Lindon, UT 84042
(801) 764-0277
www.wavetronix.com