

THOMAS TIGHE
President and CEO

Direct Relief 
INTERNATIONAL

Brings Technology from the Commercial World
to the Humanitarian World

Photos by Paul Good Photography

A portrait of Damon Taugher, a man with short brown hair, wearing a blue and white plaid button-down shirt. He is smiling slightly and looking towards the camera. His arms are crossed, and he is wearing a watch on his left wrist. The background is blurred, showing what appears to be a store or market setting with various items and signs.

DAMON TAUGHER
Director, Direct Relief USA

A 60-year old nonprofit transforms its organization with a new online community network built with SAP software

by **Lauren Bonneau**, Managing Editor

More than half of the world's population, which is fast approaching nearly seven billion people, survives on less than \$2 a day. In fact, the vast majority of humans on this planet struggle to secure access to the basic necessities of food, water, shelter, and medical care. In the United States alone, 50 million uninsured people who require health services have difficulty even *contacting* a doctor, not to mention buying life-saving medicines.

Direct Relief International is a nonprofit organization with a single purpose — to provide humanitarian assistance and medical resources to people who can't pay for them. Recently, the organization has taken great strides in fulfilling its mission by capitalizing on advances in technology. Building from a backbone of SAP software, Direct Relief has created an online community network, called the Direct Relief Network, that can support more people in need by making medicines and supplies more easily accessible. Direct Relief's partners — corporate supporters that donate medicines, clinics and health

centers that receive the medicines, and medical professionals who volunteer their time and services — access the Network to see where help is needed most, make donations, and place orders.

“One of the big challenges for low-income health services is that there’s clearly a need worldwide, but no one knows *where* — where do the facilities exist, what materials do they require, what other resources do they need?” says Thomas Tighe, President and CEO of Direct Relief, who previously served as Chief Operating Officer of the Peace Corps. “Why couldn’t we create a channel through which we could optimize the supply and demand connection and encourage more supply to meet the demand? By structuring an information system that defines both of these precisely — down to a site level and also at a macro level — we can help resources flow from where they are to where they need to be.” By creating the Direct Relief Network, the organization was able to do just that.

Bringing Technology from the Commercial to the Humanitarian World

While its mission is focused on helping people instead of increasing profit margins, Direct Relief faces the same challenges as any multi-national business serving a global marketplace. At the functional level, a nonprofit needs the same information as a commercial business — what products and quantities customers are ordering, for example — and to follow similar processes for warehousing, sales and distribution, and finance.

In the commercial market, businesses sell goods and services to viable consumers with disposable incomes. Transactions tend to flow very efficiently in such environments — a person can order a book online and have it delivered overnight, for instance. However, donating to a nonprofit online is not typically as efficient as buying a book. Determining where and how that donation should be allocated is a roadblock for many nonprofits. Bridging the gap between donation and distribution of services requires a sophisticated approach that can rival the most leading-edge commercial supply chains.

“Our organization thought it would be compelling to bring the technology that

exists in the commercial setting to the non-commercial world,” Tighe says. “We wanted to create a system that could identify people who don’t have access to available resources — and also healthcare providers who offer services — profile their needs, and serve them with medical materials as well as financial, human, and even technological resources.”

This system, or “network,” allows Direct Relief to easily facilitate interactions with its thousands of partners. The Network is essentially a website built on a foundation of SAP software, including SAP NetWeaver Portal to build the interface, SAP Customer

“One of the big challenges for low-income health services is that there’s clearly a need worldwide, but no one knows *where* — where do the facilities exist, what materials do they require, what other resources do they need?”

— Thomas Tighe, President and CEO, Direct Relief International

Relationship Management (SAP CRM) to manage the information about partners, SAP NetWeaver Business Warehouse (SAP NetWeaver BW) and SAP BusinessObjects solutions to capture information about interactions with partners, and SAP ERP to manage the financial and logistics aspects.

According to Tighe, SAP software is a powerful example of a product that can be used to meet both commercial and nonprofit goals. While originally developed to optimize the production and delivery of goods or services, SAP software also helps Direct Relief improve the quantity and quality of the products it supplies. “We’ve been able to increase the flow of aid provided, help more people at a lower cost, and produce more precise reporting that pinpoints who ordered what resources, so that at any moment in time, we have a sense of the demand and available supply,” he adds. “In fact, it’s because we have SAP software that we’ve become the only nonprofit in the U.S. authorized to distribute prescription medications in all 50 states.”

Managing regulatory obstacles is especially important to Direct Relief. As a distributor of medicine to over 70 countries, Direct Relief must comply with a wide variety of regulations. Some medicine becomes harmful or even fatal if improperly handled, so it’s crucial

to ensure data integrity by enforcing precise chain-of-custody control. Direct Relief tracks several important attributes for each of the thousands of medicines and supplies that its partners provide — including lot number, expiration date, active ingredients, strength, dosage, and more than a dozen additional fields. This level of accuracy is necessary to meet complex U.S. and country-specific compliance requirements, and the data is essential in the event of a recall.

“You can’t lower the standards of precise handling and compliance just because you’re sometimes dealing with very large scale, post-emergencies,” says Tighe. “Your systems need to be good enough that you can, if necessary, react much faster when situations call for it.”

Supplying Medical Materials in Emergency Situations

Delivering medical supplies and assistance where and when it is needed most often means providing aid in response to natural disasters or other global emergencies and crises. For example, Direct Relief provided direly needed volunteers and medical resources after the devastating earthquake struck Haiti in January 2010. More than 500,000 people were killed or injured, and the country’s commercial, residential, and medical infrastructures collapsed almost instantaneously. Through the Network, the organization delivered over \$50 million in support — the largest response effort in its history.

Historically, managing emergency response efforts has been difficult, according to Tighe, because while relief organizations have no shortage of donations or offers of assistance, there is too little information on how best to help. Many organizations end up acting on well-intentioned guesswork. “Tons of container loads of medical materials were arriving simply addressed to the airport in Haiti, effectively clogging up already compromised distribution arteries,” he says. “And it’s very frustrating to us because it’s predictable and avoidable — but it’s difficult to set up a system that forces you to gather and organize relevant data, and then tethers that data to an allocation and distribution mechanism that you can work through to provide medical resources.”

A more effective response would require a system to aggregate and analyze data about the type of injuries sustained in the disaster, leading to information such as how many



At a Glance

patients need to receive trauma care or even the number of sutures that are needed. Fortunately, Direct Relief spent the year prior to the Haiti disaster developing the Network to create an efficient, transparent, optimized, and quick flow of materials in a high-pressure situation. Once Direct Relief rolled out the Network globally, the Haiti earthquake presented the first opportunity to test the effectiveness of the new system in an emergency response situation.

“We were able to profile the dimensions of the medical material needs at a macro level, and aggregate the information down to the individual place that ordered them. We weren’t sending products that weren’t ordered, needed, or wanted, or shoving materials through a distribution pipe that would get clogged,” remarks Tighe. “We could visualize the data and tell a story about where the flow of resources went into Haiti, to particular sites down to manufacturer lot numbers, which was reassuring to people who responded to this crisis. It opened up their inventories for us and instilled a lot of confidence, which is helpful to both our organizations, but most importantly to the people who ultimately got what they needed at a time they needed it.”

In the days after a natural disaster, such as the earthquake in Haiti, Direct Relief quickly processes a large volume of donated medicines and supplies from its donor companies and must track information on each product that enters the stream. That information then must be available quickly for healthcare partner groups working on the ground. “Having a system in place to allow that information to flow into the SAP application and then quickly transfer to the partners so that they know exactly what they can order is very complex,” says Damon Taugher, Director of Direct Relief USA. “We knew that our system had to be able to do that.”

The Network experienced a spike in activity following the earthquake in Haiti, doubling its normal number of donations during a two-week period. In addition to the massive amount of new information that needed to be entered into its SAP systems, Direct Relief had to add two new warehouses to accommodate the increased quantity of products in its supply chain. The new warehouses doubled capacity from 50,000 to 100,000 square feet. In a matter of days, the number of active partners that were ordering and donating supplies in the SAP CRM system jumped 300%.

Direct Relief

Headquarters: Santa Barbara, California

Industry: Nonprofit providing humanitarian medical aid

Employees: 57

Websites: www.directrelief.org and network.directrelief.org

Company details (2010):

- Established in 1948 to provide donations of medicine and medical supplies
- 100+ companies donate medical materials
- \$1.4 billion+ in aid since 2000
- \$250 million in aid provided to the U.S. alone
- 5,390+ shipments worldwide
- \$59 million+ support provided to the Haiti relief effort of 2010
- Every \$1 donated is leveraged to provide more than \$25 in medical aid

SAP solutions:

- SAP ERP 6.0
- SAP NetWeaver Portal 7.0
- SAP CRM 7.0
- SAP NetWeaver BW 7.1
- SAP BusinessObjects solutions

The Origins of the Direct Relief Network

Having a strong technological backbone has allowed Direct Relief to expand the reach of its services and connect partners and providers more efficiently across the globe. However, the original design of the online community network wasn't so ambitious. The Network grew out of a specific challenge Direct Relief was facing in the U.S. — to enable any company to donate products needed by every community clinic or health center in the country that treats uninsured and underprivileged patients who can't access the medicine they need to stay healthy. Through the Network, Direct Relief can now support more than 8,000 nonprofit clinics in the U.S. that serve these people in need.

"Through the Direct Relief Network, companies and providers now have a place to access donated medicine," says Taugher. "The Network has facilitated thousands of individual transactions by healthcare providers who have a single site where they can log in, see a list of products, and choose what they need to serve their patients. This improved process has also reduced the administrative burden at these busy clinics, as the process previously involved back-and-forth exchanges through email, fax, or phone."

Thousands of clinics request medicine and medical supplies through the Network each year. Direct Relief connects the needs of patients to the hundreds of companies donating medicines and supplies. Having a sound IT system in place helped the program scale quickly and allowed the organization to serve clinics in all 50 states. Taugher credits the Network with enabling the organization to distribute more than \$250 million (wholesale) worth of medicine, providing patients with millions of prescriptions they need but can't afford.

The Network was originally opened only to U.S. partners and providers, but after demonstrating the system's ability to scale quickly, Direct Relief decided to take it global. "Now, all our partners in over 70 countries that we work with can order online, see inventory, choose their products, and arrange the shipping logistical information," says Taugher.

Moving a highly regulated product like pharmaceuticals requires an extensive screening process for partners. When partners come to the Direct Relief Network site, they are rigorously vetted before they are eligible to receive or make a donation. Once they are approved and are granted access to the Network, they can begin placing orders and making donations.

How the Network Works

The architecture that powers the Network processes includes SAP NetWeaver Portal, SAP ERP, SAP CRM, SAP NetWeaver BW, and SAP BusinessObjects solutions — all of which the organization had been using internally, prior to the Network rollout.

Direct Relief has run its business on SAP ERP since July 2008. The organization rolled out the rest of its SAP solutions in a second phase a few years later. Ross Comstock, IT Director for Direct Relief, was instrumental in getting support for and seeing through the implementation. "When you put SAP software in place, you are buying into well-established business processes and transforming your organization to be instantly, hugely productive and powerful," says Comstock. "The Direct Relief organization overall has benefited from the SAP implementation, as each department is strengthened from being undergirded by these strong systems."

Comstock also was a key player in the decision to extend the reach of the organization's back-end SAP systems for external use

Adding Volunteers to the Mix

In addition to providing medicine around the world, Direct Relief is working to deliver volunteers through the Network as well.

Many skilled medical professionals who are interested and willing to help simply don't know where to go or how to get involved. "Doctors and nurses previously had to do their own research, and no one knew they were out there," says Tighe. "We decided to adapt our system to enable the flow of human resources as well as the medical materials. Since we already had our partners' requirements expressed in an organized fashion, in a parallel effort, we could ask people to profile their skills and availability in the system."

Profiling volunteers involves defining each person's language skills, interests, time availability, specific medical experience and expertise, and more. Direct Relief also had to consider how the system would define the supply (the volunteers) as well as the demand. All of this information is necessary in order to arrange suitable placements for volunteers at facilities in need of aid assistance.

by partners. "Our SAP systems have made it easy for us to bring thousands of hospitals and clinics together with the companies that are best positioned to help them. These systems are the glue that binds all that together and a big part of what makes the Network so powerful," he says.

The core SAP ERP system handles ordering and shipping processes via the internal-facing sales and distribution functionality. That core system became partner-facing with the addition of the e-commerce functionality in SAP CRM. Downstream, hospitals and clinics can now log in to the e-commerce application to place orders straight from Direct Relief's warehouses.

"Then, because our product donors are offering products that are in many cases already in our warehouse, we decided to adapt the e-commerce functionality to have it face upstream as well — so we can take product donations through it, which I think is pretty innovative," says Comstock. "Product donors can offer specific medicines, supplies, and equipment through a standard Microsoft Excel spreadsheet and instantly upload the information into our system. They can enter their products one at a time, or they can give us a hundred products at once."

Developing a Replenishment Program

The addition of a replenishment program — in which regularly ordered supplies of medicines are automatically restocked — has also increased the efficiency of the organization's supply chain. "One of our goals was to regularize the delivery of certain medicines and materials we knew providers depended on," states Taugher. "If we could work with companies to sustain product donations month over month, that would allow better predictability for the providers and their patients to get needed donations and medicines."

Some donations are earmarked for specific patient populations. A company might provide a large quantity of medicine that is distributed via clinics only to patients who have been screened to ensure they qualify. "You can see very quickly the complexity and the amount of information that we needed to manage," Taugher says. "We put in place the ability for a clinic to tie its reporting system to ours — so they can export information about all the patients who receive the medicine, with all the privacy concerns protected." The individual clinic-patient chart numbers upload to Direct Relief's systems, and a scanning and checking process ensures accuracy among the information

Making Sense of the Data with Dashboards

What are the characteristics and attributes of a particular clinic? What are the specific needs? What support has flowed there? Where did that support come from?

Collecting and analyzing data from its activities has proven a powerful tool for Direct Relief. With dashboards built using SAP BusinessObjects solutions, Direct Relief can mine the information in the Network and target support to those most in need. It's one thing to know that an estimated 34 million people were infected with the HIV virus in 2009, but it's more helpful to know where they live, what facilities and services are available nearby, and what the available resources and shortages are.

A dashboard pulls only the relevant data, which allows program staff to understand and use the information and take action, do external reporting, or both. "Through the dashboarding effort, we have been able to collect, organize, analyze, and then visualize the data in a way that anyone can understand what we're talking about," says Tighe. "Internal decision makers like me love that stuff — as well as external parties who want to know what we actually do. It's nice to be able to show them a map that simplifies the data so they don't have to do their own complex analysis."



"We've been able to increase the flow of aid provided, help more people at a lower cost, and produce more precise reporting that pinpoints who ordered what resources, so that at any moment in time, we have a sense of the demand and available supply."

— **Thomas Tighe**, President and CEO, Direct Relief International

that is transferred from the clinic's pharmacy system. This data can then be communicated back to the donor company.

"As a result, our business also shifts toward that predictable supply," says Comstock. "When we shift to a replenishment-style program, we create a more reliable supply of those most-needed medicines for the hospitals and clinics."

Expanding Outside the Network

It's impressive that Direct Relief has managed to grow so much in a down economy, helping more people, delivering more medications, and providing more financial support than any other time in the organization's history. "In the worst economic time, we've become more efficient by taking systems that were developed for other purposes and using them in the nonprofit realm," says Tighe. "I think our experience builds a compelling case for other nonprofits and governments to act collectively to do more with what we have — and IT systems are a huge part of that."

Direct Relief has already expanded its SAP systems beyond its four walls to a network of thousands of partners, but the organization isn't stopping there. "We can use our SAP systems and business intelligence to collect data about our partners and then share that information, not just with our partners or within our organization, but back to the larger world to identify problems, where the most critical need is, and which organizations are in the best position to provide support. It's thrilling to think what is possible when that comes together," Comstock concludes. ■