

**CareFusion at a Glance**

**Headquarters:**

San Diego, Calif.

**Customers:**

More than 25,000 worldwide, including hospitals, surgery centers, long-term care facilities, outpatient and ambulatory clinics, governments and insurance providers

**Focus areas:**

Medication management; infection prevention and surveillance; operating room effectiveness; device connectivity; data and analytics; respiratory care

**Revenues:**

\$3.55 billion (fiscal 2013)

**Employees:**

More than 14,000

[www.carefusion.com](http://www.carefusion.com)

Source: CareFusion

# Real-Time Business Leads to Healthy Performance

CareFusion employs in-memory computing to transform its business, improve operating margins and accelerate revenue growth.

BY JOE MULLICH

**A**round the globe, demands for healthcare reform are causing the life sciences industry and its customers, the care providers, to look for efficiencies. CareFusion, the \$3.5 billion maker of products that help reduce medication errors and reduce healthcare-

associated infections, intends to be at the front line of this transformation, promising quality and safety at reasonable cost.

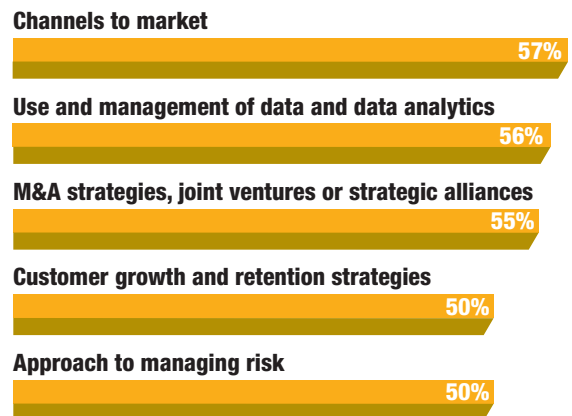
In its efforts to achieve this goal, CareFusion has averaged one major acquisition annually since its spinoff from Cardinal Health in 2009. To date, the acquisitions have bolstered CareFusion's product line with technologies that improve respiratory care and deliver intravenous drugs to patients. But they have also created management challenges.

Each of the acquired companies had its own systems for strategic planning, which made it difficult for CareFusion to get a global view of its data. Yet comprehensive planning was essential for the company to reach its aggressive goals. "The first two years of growth we called a 'standup' phase, which was the separation" from Cardinal Health, CareFusion CEO Kieran T. Gallahue told analysts in 2013. "The last two years began what we call the 'building the foundations for growth' stage," which, he said, could only be achieved by streamlining the organization and reducing costs.<sup>1</sup>

The same theme resonates throughout the life sciences industry. An annual global survey of pharmaceutical and life sciences CEOs by PricewaterhouseCoopers found transformation on their corporate agendas, including new business structures, technology investments, and the use of data and analytics<sup>2</sup> (see Figure 1, "Meeting the Challenge to Change").

**FIGURE 1 Meeting the Challenge to Change**

*Life sciences CEOs view data and analytics among the initiatives that are critical to transformation. (% responding)*



Source: PricewaterhouseCoopers, 2014. <http://goo.gl/QgoZwG>

CareFusion found a way to assemble a global view of its operations to improve the collection and consolidation of information it needs for better planning and strategic decision-making. The company is using financial forecasting and planning software in combination with in-memory computing, a new database and analytics platform that enables very large volumes of data to be aggregated and analyzed quickly to answer any question almost instantly. Organizations frequently use in-memory technology to make more accurate budget forecasts, run "what-if" scenarios faster and gain better insight into customer relationships.

"The entire healthcare industry has been inefficient relative to other industries," observed Mike Zill, executive vice president and CIO at CareFusion. "That needs to

1. Nasdaq information on CareFusion. <http://goo.gl/1Ncrfb>.  
2. PricewaterhouseCoopers Global CEO Survey: Pharmaceuticals and Life Sciences. 2014. <http://goo.gl/QgoZwG>.

### CareFusion's Challenges

- ▶ An acquisition spree resulted in disparate ERP systems that could not share data.
- ▶ Financial, employee and customer data was difficult to consolidate and analyze in a timely way.
- ▶ Executives lacked confidence in the accuracy of the data used to make decisions.

### CareFusion's Solutions

- ▶ Deployed real-time planning and consolidation software that automates and streamlines planning, budgeting, forecasting and consolidation activities.
- ▶ Adopted in-memory computing to speed data collection and analysis.

change, and we are dedicated to being a force that helps lead the change.”

### A Unified View

More than 14,000 CareFusion employees around the world manufacture products purchased by more than 25,000 healthcare providers. That makes the company's operations complex to manage, Zill explained (see Figure 2, “CareFusion's Complex Operations”). Meanwhile, the pace of business demands that CareFusion be able to run multiple business scenarios quickly, using the most accurate data possible.

Yet data from each unit had to be pulled out manually. Only averaged, historical numbers were available for analysis. As a result, reports were produced slowly, and their reliability was hard to assess. “Data is a reflection of the organization,” said Wayne Eckerson, director of the research, business applications and architecture group at consultancy TechTarget. “If you have fragmented, autonomous business units, you'll have fragmented data.”

So the CareFusion finance team led the charge to unify the company using real-time analytics. “There is a saying: Time kills all deals,” Zill continued. “If the executives are having a discussion, they won't accept waiting while you pull together the data they need.” A survey by IDG Enterprise found improving the quality of decision-making, making quicker decisions, and improving planning and forecasting to be the top business drivers for investing in analytics (see Figure 3, “Better Decisions Through Data”).

During each fiscal year, CareFusion compiles and reviews several iterations of its budget, adjusting for business results. Before the company was able to quickly assemble and analyze its financial data, it was difficult to determine whether departments were meeting their individual targets. Without this information, CareFusion could not make timely course corrections.

With real-time data, however, the company can run more—and more sophisticated—models in the time

**FIGURE 2 CareFusion's Complex Operations**

*The company needs to consolidate and analyze data about two dozen major brands in four product areas.*

Product area	Number of brands
Infection prevention	4
Respiratory care	6
Medication management	8
Operating room effectiveness	6

Source: CareFusion. <http://goo.gl/rtgQkn>

it would take to run one, Zill said. Current numbers lead to better estimates, more precise analysis and improved decisions. CareFusion can determine within minutes how departments are performing and the potential impact of adjustments. Michael DeLeo, financial manager for financial systems at CareFusion, said the company's efforts are in line with an industry trend to compile and consume data more rapidly.<sup>3</sup>

### More Timely Action

What is more, because CareFusion executives can now accurately track, in real time, how their adjustments play out, they can more quickly agree on specific actions that different groups need to take to achieve financial goals.

When building a budget or forecast, for example, CareFusion often needs to model changes to employee-related costs, like benefits, tax rates and international currency changes. Previously, adding a new benefit or calculating the impact of a health insurance cost increase required a lot of manual work. Information would be gathered from local controllers and payroll groups to determine which employees would be affected. The financial department then would forecast the impact of the proposed changes and apply the anticipated cost for each group to its budget.

The process took a week or more, and verifying the accuracy of the data was difficult. “There was no easy method to ensure that all required employees and cost

3. “Controlling 2013 Speaker Profile: Michael DeLeo, Finance Systems Manager at CareFusion, Inc.” ERP Corp. blog, 2013. <http://goo.gl/PZGAZx>.

## Benefits of Real-Time Business at CareFusion

### ► Increased availability:

Information to make key decisions that took more than a week to pull together can now be delivered in minutes.

### ► Deeper insight:

Analysts can explore questions of profitability in detail at both the customer and the product level, as well as run more “what-if” scenarios.

### ► Improved forecasts:

By using real-time data, and gaining flexibility to include more data sources in its analyses, CareFusion can create more accurate forecasting models.

centers have been accounted for in the adjustment,” Zill said. If the actual costs turned out to be different than the forecast, it was equally challenging to determine exactly why. The variance could be due to one or more factors—including incorrect calculation methods or changes in expected employee headcount or benefit eligibility.

Now, the company can make more precise forecasts at the enterprise level, and make them in near real time. And when variances between planned and actual costs occur, CareFusion can determine the reason more easily, according to Zill, and decide quickly the best way to bring the budget back in line. That is essential to achieving the efficiencies the life sciences industry seeks, he said.

## New Perspectives and Insights

Zill added that the most valuable benefit of having real-time data is obtaining new insights. For example, CareFusion can model profitability down to both product and customer levels, giving it a more granular view to aid decision-making.

In the past, Zill said, the company might have only been able to get a partial view of its relationship with a customer. Now that it can consolidate and analyze all the data from different units, CareFusion will use this technology to discover, in the moment, which units customers purchase from and how best to allocate company resources to properly serve customers.

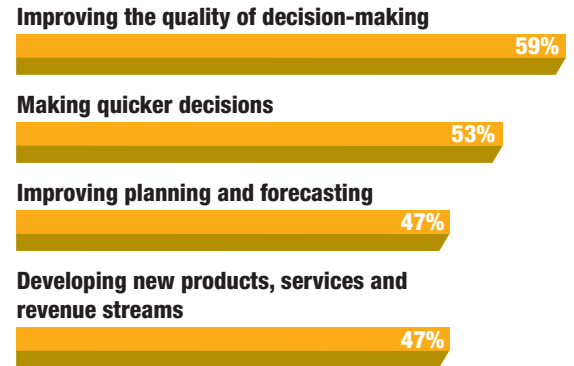
“We can approach the model-making at a much greater level of detail,” Zill explained. “This happens because we no longer have to worry about the size of the data anymore. In the old days, you had to think in terms of the minimum amount of data you could bring together and still answer the question. Now we don’t have to be so smart about eliminating information, so we don’t throw away nuggets. That’s mind-freeing and time-freeing.”

## Consider More Data

According to CareFusion’s Gallahue, the intense business integration work has already produced a

## FIGURE 3 Better Decisions Through Data

Business drivers for investment in analytics include the following. (% responding)



Source: IDG Enterprise Big Data Study, 2014. <http://goo.gl/BNImWX>

big payoff, both to expanding margins and the bottom line.<sup>4</sup> Now that the company has proven that the in-memory platform and advanced analytics models enable it to understand its costs at a greater level of detail, with more accuracy and in less time, it intends to expand these capabilities to other models and other data sources, Zill said.

For example, he added, for consumable products, CareFusion plans to model sales based on historical trends and seasonality.

“These revenue models will provide us with a basis for forecasting manufacturing costs and profit margins,” Zill said. “They will allow us to further improve our accuracy, efficiency and ability to plan for changing business needs.”

Zill envisions expanding the use of in-memory computing to many additional areas—including mergers and acquisitions, research and development, sales and marketing—which will bring the enterprise-wide improvements that are needed to propel CareFusion, and its healthcare customers, to a new era of higher efficiency. •

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This research project was funded by a grant from SAP.

4. Nasdaq information on CareFusion. <http://goo.gl/1Ncrfb>.

## SAP Recipe for Success

- ▶ **SAP HANA platform to handle your big data challenges, uncover more value, deliver breakthrough innovations and simplify your IT environment.**
- ▶ **SAP Business Suite Powered by SAP HANA to help you transform and run every aspect of your business in real time.**
- ▶ **SAP BusinessObjects, Business Intelligence and SAP Lumira to enable every individual in the organization to easily visualize big data and get unique insights anytime, anywhere.**

# Real-Time Businesses Make Decisions In the Moment

*Bloomberg Businessweek Research Services interviewed Steve Lucas, President, Platform Solutions, SAP AG, about transforming business operations with real-time insights.*

### What does it mean to be a real-time business?

Being a real-time business means being aware of the key factors that will impact your decisions and being able to make a decision in the moment that matters. In most life sciences companies today, decision-makers are concerned about reducing costs, maximizing safety and delivering high-quality care. By consolidating essential information and applying real-time analytics, organizations can clearly see what decisions need to be made to meet these goals, whether in R&D, finance, sales, marketing or supply chain management. That's why the SAP HANA platform exists: to enable companies to do business in the moment.

### Where do you see the most value for different organizations?

The value comes from three main drivers. First, we reduce the complexity of the systems required to produce your existing results. This was one of the key motivations in designing SAP HANA: massive IT simplification. You can use the platform to feed data from all different sources into one system. Second, we enable agility by giving customers the ability to get real-time insight for decision-making. Third, we're unlocking the true potential for innovation through new business processes and models: the real-time business innovation.

### As you look ahead, what new ways of doing business do you envision?

Our SAP HANA platform not only can enable customers to make decisions for today, but it also provides a powerful predictive engine. Most companies make decisions by looking in the rearview mirror. But the rearview mirror is tiny compared to the windshield looking forward. Companies will start to build forward-looking decisions into their operating models.

### What is your best advice to companies that want to start their real-time transformation?

It is not just about the technology. SAP HANA is extraordinarily innovative, but the first thing we do is look at where the opportunities are to transform business processes. Then we spend time with customers rethinking how those processes are designed and how to remodel them. You have to start at zero: What would you do if you didn't have to wait for information? If you don't have to wait, there's an opportunity for massive reinvention and value creation across industries.

To learn more about using SAP HANA, visit [www.saphana.com](http://www.saphana.com).

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