

# The Trailblazer's Guide to Apps

Why apps are accelerating scientific breakthroughs and  
enhancing patient care in the Age of the Customer

salesforce







## Healthcare & Life Sciences

# The future of healthcare and life sciences belongs to trailblazers.

**Meet the trailblazers** who are pushing the boundaries of what's possible by being their best. In this Age of the Customer, the real trailblazers are the innovators who are leveraging data, technology, and apps to build faster, build smarter, and build everything connected together.

In these pages, you'll meet the CIOs and CTOs, the IT leaders and developers, the admins and citizen developers who bring vision, energy, and passion to every role, team, and department.

So do you have what it takes to be a trailblazer?  
We know you do – all you need is a guide.

### *Let's get started.*

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# How trailblazers are accelerating scientific breakthroughs with apps

WELCOME TO

## Healthcare & Life Sciences

*Discover great things*

The healthcare industry is in the midst of a sea of change. Patients increasingly expect to manage their own care just as conveniently as ordering a taxi on a mobile device. And with changing reimbursement regulations, both healthcare and life sciences organizations are rethinking the way they deliver better quality – not quantity – of care.

To meet these challenges head on, payers, providers, pharmaceutical, and medical device companies must find ways to improve collaboration and innovate faster than ever before. Trailblazers from these leading organizations are finding new and creative solutions to transform research, treatment, service, support, and more. In this e-book you'll see how they use technology to reimagine a healthier future – from mobile apps that deliver concierge support for a chronic condition to a supply solution that helps scientists innovate faster.





**FOUNDED** mid-1970s | **SIZE** 500 Employees | **LOCATION** Ipswich, MA | **WEBSITE** [neb.com](http://neb.com)

A collective of scientists finds  
new paths to **unravel the  
mysteries of DNA in the  
lab faster.**

**I**n a world where people expect a ride to show up just a few moments after they order it with the tap of a finger on a smartphone, is it any surprise that life sciences researchers are under tremendous pressure to discover breakthroughs faster than ever?

As unreasonable as it seems, it is just such changing expectations that have become the norm in the Age of the Customer. For New England Biolabs (NEB®), the very technologies that have made people less patient for answers have also turned out to be the solution. In fact, with the Salesforce platform, the team at NEB is able to quickly create and deploy social and mobile apps that allow scientists in laboratories around the world to get the precious materials they need for experiments – all with a higher degree of convenience and support than ever before.



“We’re all about helping researchers get to that eureka moment faster.”

– **Andrew Bertera**, *Executive Director of Marketing*





## THE BUSINESS CHALLENGE

# Deliver inventory faster so scientists can **innovate faster**.

Because NEB offers the largest selection of recombinant and native enzymes for genomic research, one of its biggest business challenges is ensuring that the right products are available to researchers when and where they need them.

One solution was simple: Put NEB freezers in labs around the world stocked with the materials scientists in those labs require. However, while this freezer program allowed NEB's customers (scientists in labs across the globe) to access products more easily, it still left NEB in the dark about which specific scientists were using which samples, and how often.

Essentially, NEB still did not know their customers deeply enough.

Framed this way, you might expect a customer service group, or even a sales group, to be tasked with finding a solution. But because NEB was using Salesforce already, another group was able to step forward and take a leadership role in the business: IT.

Of course, solving this problem posed a number of issues for the team, who was also tasked with:

- Ensuring secure/direct access to products in labs
- Delivering transparency and real-time metrics, while reducing operational IT liabilities and costs
- Delivering excellent customer service and collaboration across all technical mediums
- Integrating and connecting custom point-of-sales freezer kiosks that could also ensure quality control for products



**“We began to think, what would our freezers tell us if we connected them into our Salesforce environment. How could that help us to become more responsive to our customers,”** said Ken Grady, former CIO at NEB.





## THE AHA MOMENT

# A hotel minibar **inspires a global solution.**

In 2012, the New England Biolabs team went to Dreamforce and observed what other companies – like GE, with its connected engine – were doing with Salesforce. But the IT team still wasn't sure what to build or connect, or even how to leverage the platform more aggressively to be more responsive to customers. Until, that is, team members went back to the hotel to relax and found the answer in their minibar: If the hotel could track the products they were pulling from the minibar, why couldn't NEB's freezers track what scientists were purchasing?

Taking another look at Salesforce App Cloud, with its APIs and solutions like Heroku, the team found that developing an interactive freezer model would be faster than a more traditional model. In fact, it took only a matter weeks, rather than months, to iterate and integrate the new model.

The APIs from App Cloud made it possible to do things that no other platform could.

In fact, using App Cloud, NEB started by building a custom inventory app in less than 30 days. This app, residing on a tablet on the front of each freezer, allows scientists to authenticate themselves, view available products, open freezers, and scan products for checkout. Every step of this process is automated and connected on the back end to Salesforce, where NEB can monitor the products being purchased, send automated purchase confirmation emails, and track new buying trends and interests of scientists in real time on their desktop or the Salesforce1 Mobile App.

NEB could also capture customer interaction data, freezer temperature, and lock status, to ensure product quality, which was something the company could never do before.

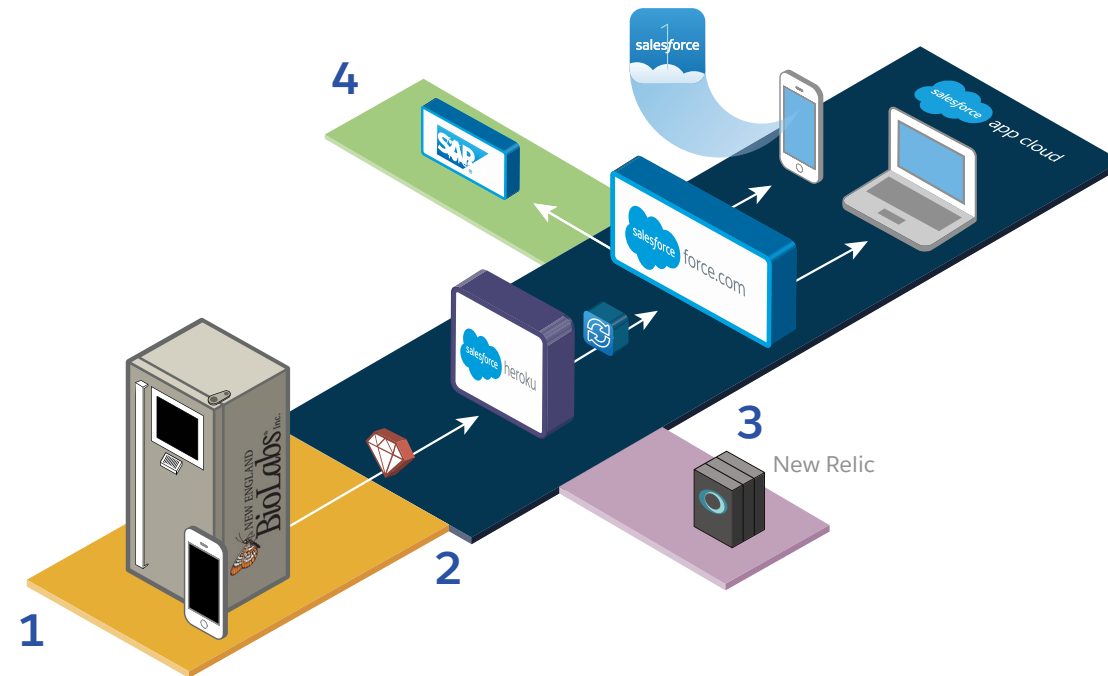
Additionally, NEB connected Salesforce to its own back-end systems and automated inventory replenishment through its existing ERP system to consistently provide scientists with the products they need on a daily basis.





## A closer look at the **architecture and technology** that made the NEB solution successful

For NEB, App Cloud offered a complete set of services to create every piece of the solution, including a secure and trusted way to connect it all. From the foundational elements to build on, to the tools to build with, integrate, and manage, Salesforce gave IT all that was required to help drive the business forward, faster.



**1** | An NEB freezer stocked with its products is located in a customer's laboratory. On-site, scientists use the tablet mobile user interface on the freezer to authenticate themselves, and the freezer is then triggered to unlock. Scientists can then view inventory categories and check out or purchase inventory.

**2** | The scientist's purchase and interaction history is then transferred via Ruby on Rails into Heroku. It is then recorded and synced into Salesforce via Heroku Connect.

**3** | Heroku allows New Relic to alert NEB of any app performance errors. And Salesforce sends a purchase receipt to the scientist via email.

**4** | Once the transaction is synced to Salesforce, NEB employees can view and track customer interactions or trends and adjust inventory in real time from their desks. Additionally, NEB executives can see the data via the Salesforce1 Mobile App from anywhere, gathering insights from dashboards to see which products were profitable, what was purchased, and how to optimize for inventory.





# The **Salesforce services** NEB used to build its app solution

## **Heroku and Heroku Connect**

NEB built a customer-facing app with Heroku to connect with customers in real time. Additionally, using Heroku Connect, data was automatically synced inside Salesforce, creating a 360-view of New England Biolabs' customers (scientists, labs, and universities) and product purchasing trends.

## **Custom Schema**

New England Biolabs created a total of 87 custom objects, 13 custom apps, 35 lines of Apex code, and 48 Visualforce pages. Accounts and contacts were among the basic out-of-the-box Salesforce features used; however, certain objects and fields were customized to map to NEB's specific customer set. For example, the "Accounts" object was changed to a "Freezers" object because freezers are sub accounts of the university. Similarly, "Contacts" changed to "Universities," and custom actions, like freezer cases, were created.

## **AppExchange Apps**

NEB has also installed multiple AppExchange apps to extend its Salesforce capabilities.

### **Pardot and Form Assembly**

These generate email and web form communications to NEB's customers.

### **Conga Courier**

This app schedules and automatically emails numerous Salesforce reports to employees and customers.

### **DupeCatcher**

This app cleanses and removes duplicate records from the NEB database and mass imports.







## Workflows

Overall, NEB uses a wide range of workflows to:

- Send welcome emails when new users register
- Open the freezer door for 20 minutes when a new user requests access
- Monitor freezer temperature to ensure product integrity

There is also a workflow that sends NEB an email notification when product inventory is low to trigger restocking.

## Authorization, Security, and Compliance

The New England Biolabs IT department has control of over 34 profiles and 36 permission sets to give employees and scientists access to certain tools and functions within Salesforce. There is no external sharing and there is controlled and restricted IP access to keep information secure.

## APIs & Integration Services

REST and SOAP APIs are used to access, modify, and report in Salesforce, and to generate notifications of changes. APIs integrate and pull data from NEB's SAP ERP system.

## Chatter

Tech support uses Chatter to better help users with technological issues. More than just a collaborative tool, Chatter is also used for communications to NEB sales staff.

## Analytics

Analytics is built into Salesforce and helps New England Biolabs keep tabs on key business metrics like adoption, case metrics, company performance, and sales pipeline management. Reports and dashboards provide new views of data to make managing freezer assets and turnovers, in-stock versus nonstock orders, restocking, and distributor metrics, simpler, easier, and faster.

## Salesforce1 Mobile App

Salesforce data is pushed to mobile devices to enable employees to manage inventory on the go. Apps, dashboards, and reports on enzyme sales, freezer status, inventory needs, order status, and more, are all available anywhere through the Salesforce1 Mobile App.





# The benefits of **building with Salesforce**



For NEB, building on App Cloud has enabled the IT department to be a true business driver for the company, transforming the way that NEB serves the scientific community.



## For IT

The IT department received real benefits from the implementation that included:

- Minimal change in IT costs. By leveraging an existing platform (Salesforce), the IT department was able to design a solution that leveraged its existing skills, as well as architecture. No new resources were needed.
- Size of the team that built the app: 0.5 internal FTE + 1.5 external developers, + 1 project manager. Plus supporting cast and crew from the marketing team (wrap design for the freezer, icon design, UX, etc.).
- Speed to build: v1.0 design/build took less than 100 days.
- Reduction in total project time. What would have taken 6–12 months to build and deploy with another architecture, took just months. The overall reduction was at least 75% in build/deployment time.

## For Business

NEB made richer, deeper connections with customers by giving scientists:

- Visibility into product availability and location.
- A secure and fast way to check out the products.
- The ability to go online via desktop or mobile devices to view inventory prior to leaving their desks.

**NEB business stakeholders ensured satisfaction, loyalty, product integrity, and further sales with insights from:**

- Real-time visibility into the products of interest and buying trends of scientists.
- A centralized place to view freezer and customer data.
- Faster response times to customer requests and agility based on information they receive in real time via Salesforce.







“It’s not that we built a bunch of separate apps and integrated them into Salesforce. We built directly in Heroku and leveraged our Salesforce objects in real time. That made our development approach much, much quicker, cheaper, and easier.”

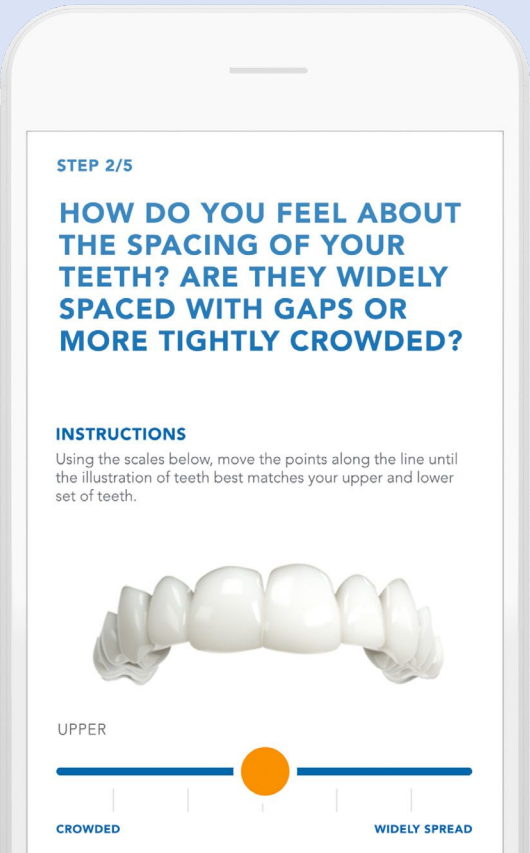
– **Ruben Melo**, *Senior Business Systems & Applications*





FOUNDED 1999 | SIZE 5,300 Employees | LOCATION San Jose, CA | WEBSITE invisalign.com

# Between visits – **how apps fill the gaps** and keep patients smiling from start to finish




There may not be another company on earth that has helped create more bright smiles than Align Technology, makers of the Invisalign system, the world’s leading clear aligner system – which provides an alternative to metal braces. Having treated more than 4 million people since Invisalign’s introduction in 1999, Align runs all of Invisalign’s consumer-facing apps on Heroku from Salesforce in multiple languages in more than 90 countries.

The Invisalign Smile Assessment app provides a personalized assessment with sample images of patients with similar issues whose smiles were improved after treatment. Used by thousands of consumers each month, the app can require almost daily updates, ranging from small changes on individual documents to very large iterations. In 2012, Align’s IT team faced increasing difficulties

updating the app quickly, which posed problems for both developers and the company’s business teams. That year, the team moved all consumer-facing apps to Heroku – having considered and rejected an alternative infrastructure-as-a-service approach – and is now enjoying Heroku’s management and support services. “I don’t need to worry about patching, adding additional storage, or security vulnerabilities,” said Leela Parvathaneni, Director of Customer-Facing Applications.

Invisalign’s other consumer apps include a cost calculator and a doctor locator. Invisalign providers can also view a patient gallery app with before-and-after photos of satisfied Invisalign patients. Heroku provides Align apps with fast scalability in response to heavy traffic or other issues, so the apps offer an optimal customer experience.

 “Salesforce has enabled us to more rapidly meet the changing needs of prospective patients and launch content updates at a quicker pace.”

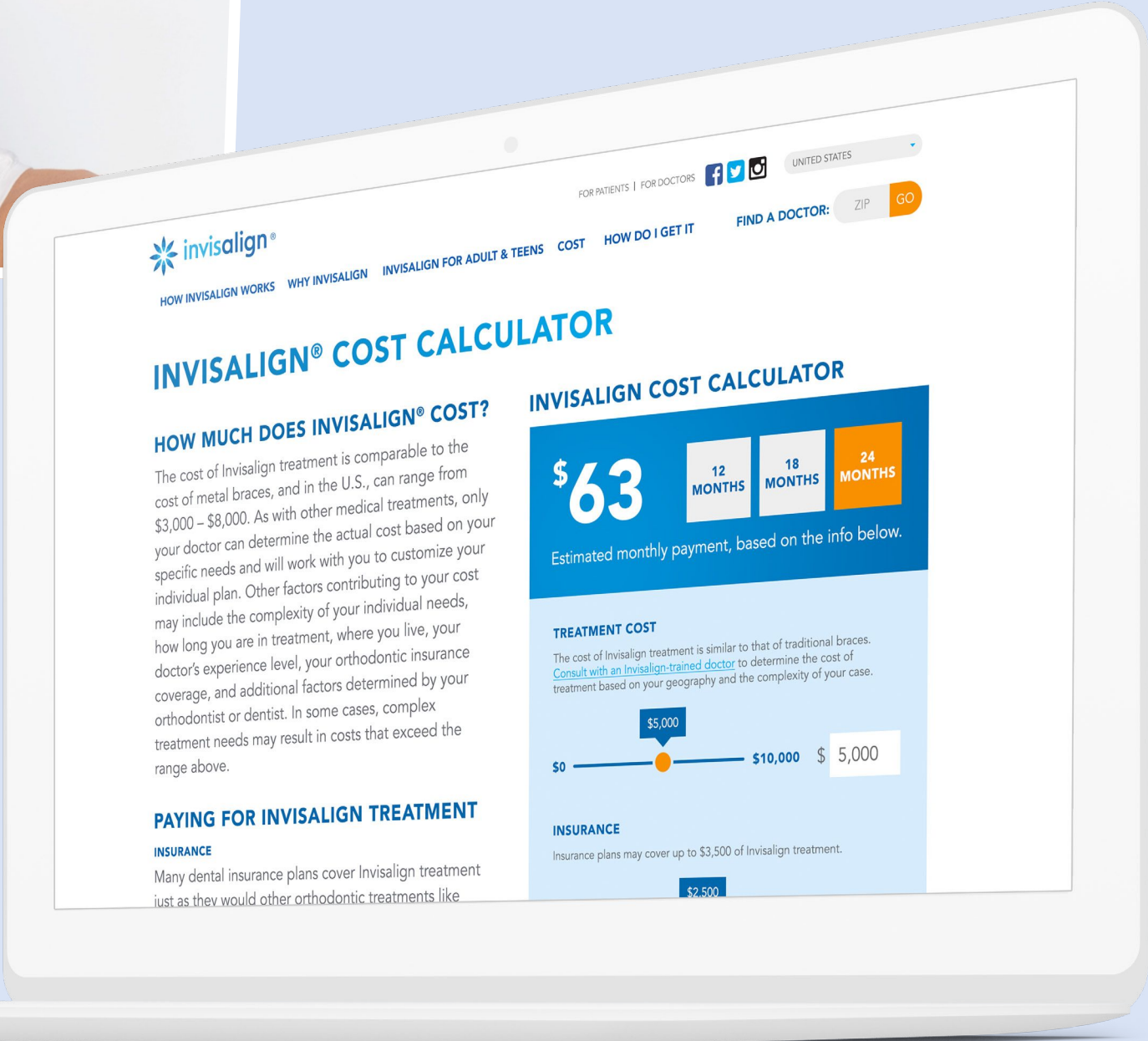
– Kamal Bhandal, Director of Consumer Marketing for North America





Align’s developers have easy access to more than 150 add-ons in the Heroku ecosystems, including databases, bug tracking, email automation, and other monitoring tools. Freed from tasks such as managing servers, adding memory, upgrading software, and troubleshooting security issues, Align’s IT team can focus its time and attention on improving the performance of the company’s apps – and bringing more smiles to the faces of consumers.

4 million  
Invisalign patients





FOUNDED 1876 | SIZE 37,925 Employees | LOCATION Indianapolis, IN | WEBSITE [lilly.com](http://lilly.com)

# This healthcare concierge app **gives patients the care and attention they need**, day or night.

A new era of highly specialized medicine is upon us, one in which patients need more training and support to administer medications and stay on therapy. Global pharmaceutical maker Eli Lilly offers that support in part through a mobile healthcare concierge app, built with App Cloud.

Specialized medications that treat such chronic conditions like psoriasis, arthritis, and osteoporosis have long required greater levels of patient support than medications in pill form. Healthcare providers traditionally have delivered patient support through call centers and home visits from nurses. But because many of these services were outsourced, Eli Lilly had poor control over the quality and reliability.”

The customer experience was suffering,” said Richard James Carter, Director of IT. “There was limited control and insight over the data, due to multiple vendors and systems of reference.”

With the Patient Connect Platform app, which went live in October 2015, Eli Lilly has reimagined patient care by helping customers learn how to use products, access information about their medications, and answer online surveys that record how well patients are feeling, physically and emotionally, on a daily basis. The desktop and mobile app also help patients engage with a personal healthcare concierge, a support specialist matched with each patient who help the patient reach their targeted outcomes through their course of therapy.

Eli Lilly has built more than 50 apps on the Salesforce platform, innovating all across the organization. The company has built manufacturing controls apps, citizen developer apps, and enterprise apps for its employees.





“IT is now not the roadblock. It’s the business. IT wants to be solving business problems.”

– Richard Carter, Director of IT

Thanks to agile methodologies and a minimum viable product approach, the App Cloud development process at Eli Lilly can transform an idea into an app in under seven weeks.

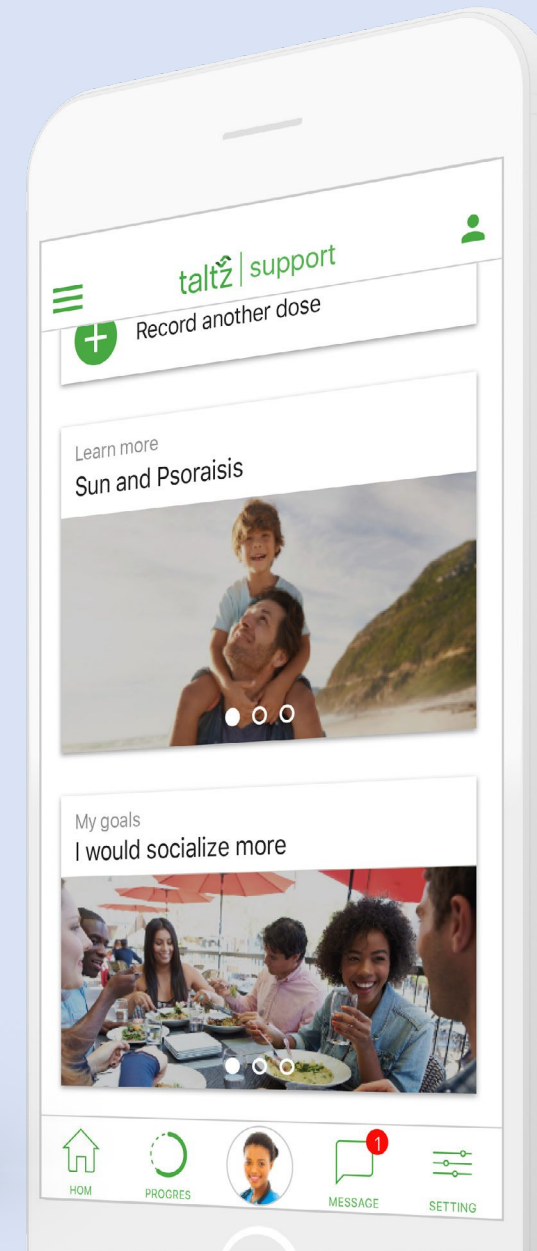
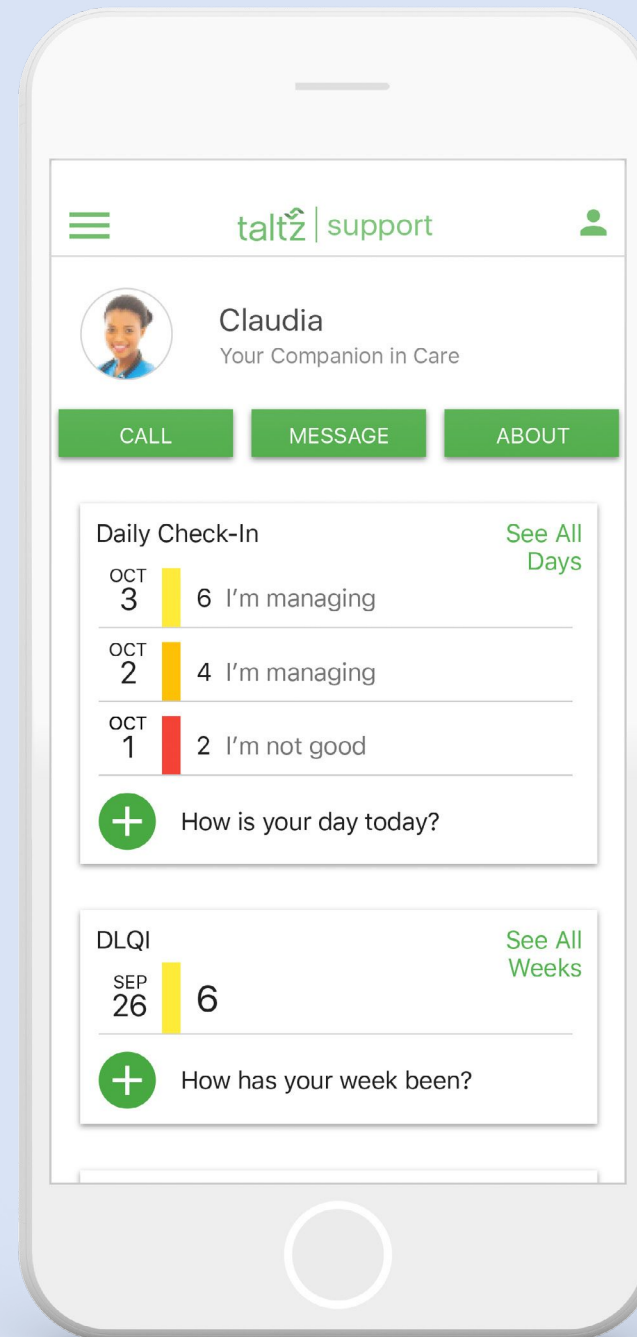
As a company, Eli Lilly is betting that this approach represents the future direction of healthcare. “We wanted to differentiate ourselves from our competitors,” said Carter, regarding the Patient Connect Platform.

“We knew that our future product portfolio would demand more of these services.”

– Richard Carter, Director of IT

50+ apps  
built on App Cloud

7 weeks  
from idea to app




# New intranet encourages **healthy collaboration** at hospital network.

For many years, employees at St. Joseph Health were struggling with internal communications. A nonprofit hospital system with 14 hospitals in three different western states, St. Joseph Health did have an intranet, but employees found it clunky and hard to navigate; therefore, they all but ignored opportunities to communicate via the channel. Now with the introduction of Staffhub, a mobile social intranet powered by Salesforce, 18,000 St. Joseph Health employees are communicating and collaborating like never before.

Staffhub began as a pilot project to replace a legacy intranet that had only 100 active users, and only four individuals who could be considered “power users.” Built on Force.com, Staffhub integrates Community Cloud and Chatter with LinkedIn and

grew mainly by word of mouth after a soft launch with just 50 users. “People started to talk about it,” said David Baker, Vice President of IT. “They’d ask, ‘Can we jump on? Can we explore?’ And we’d say, ‘Sure, play around with it. See what you think. Give us your feedback.’”

Those 50 users quickly grew in number to 3,000 just a few weeks after the soft launch. Within months, there were 18,000 users, including vice presidents and CEOs who have become regular contributors.

 **“Social media is coming whether you like it or not. There’s no way to fight it. We realized that we needed to get in front of it, embrace it, and use it as a tool to promote our company culture.”**

– David Baker, Vice President of IT

Staffhub has even helped Baker’s own department better manage its daily onslaught of 1,200 to 1,500 service calls. Now that there’s a 24-hour Ask IT app plugged into Staffhub, tickets for service can



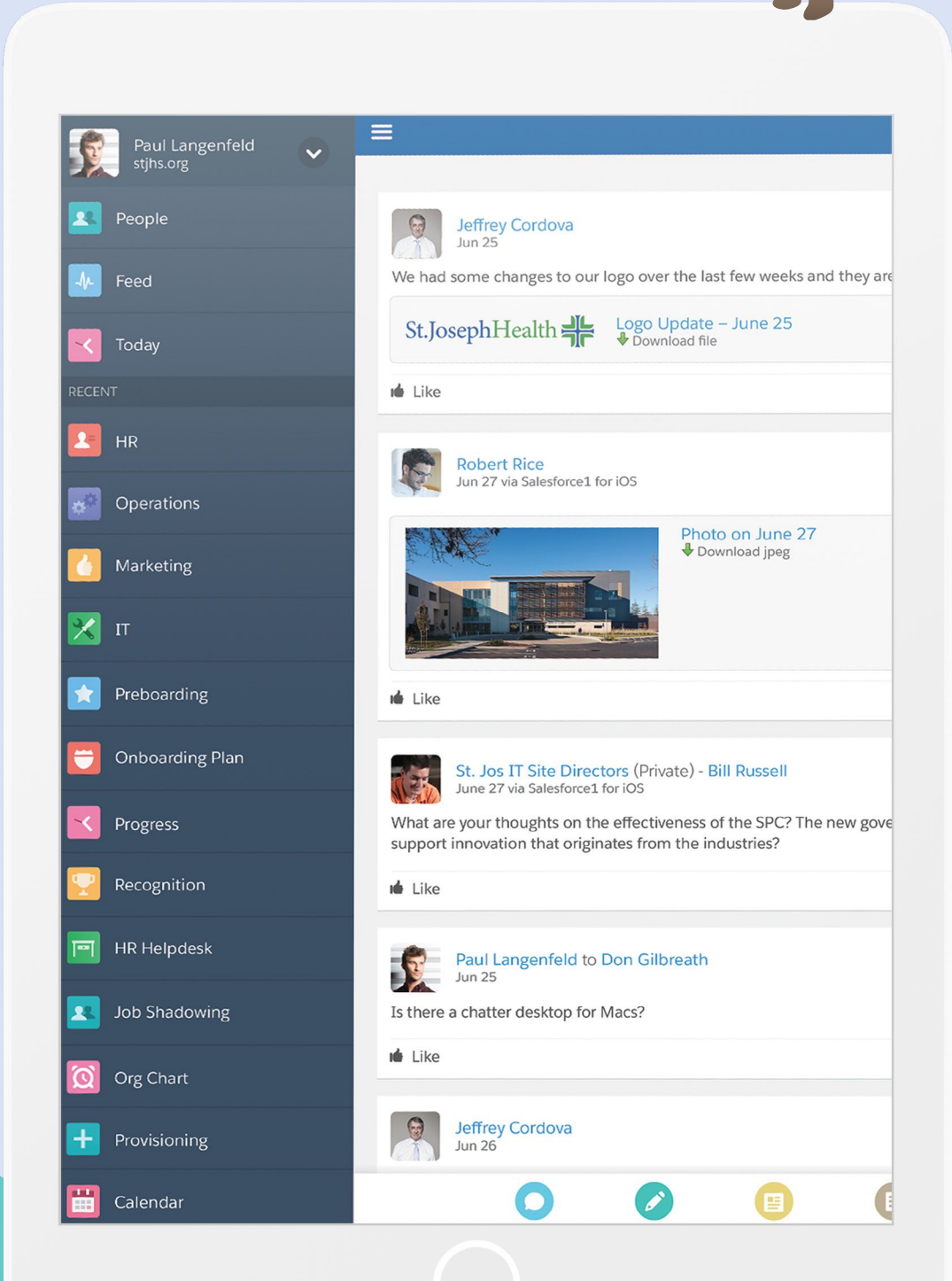




be generated right away. “The beauty is that there is open collaboration and searchable content,” explained Baker, “so though the tickets are being raised, sometimes the problem is solved by one of the members of the service desk team before the ticket is even allocated.”

One noticeable mark of Staffhub’s success is that it has broken up the slower-moving, decades-old email communication culture at St. Joseph Health, one in which information was difficult to find and share. “Our tagline for the project has been: ‘Email is where information goes to hide,’” said Baker. “We’re really freeing the data and liberating the information. Folks from Northern California, Southern California, and Texas may not have understood there are other people out there working on similar stuff, and now they can connect. It’s helping us to become a true enterprise company.”

18,000 users





## NEXT STEPS

As the organizations featured in these pages make clear, it's all about discovering a whole new way to connect with customers. Trailblazers are building the apps that make this possible.

The good news is you don't have to radically reinvent yourself to become a trailblazer. All you need is the right platform on which to build your vision.

**1** | See everything Salesforce offers for IT. From the world's #1 enterprise app building platform to lightning-fast ways to optimize and customize your CRM, we have solutions designed to turn any IT leader into a trailblazer. Learn more at [salesforce.com/app-cloud](https://salesforce.com/app-cloud)

**2** | See how easy it is to blaze your own trail. We'll guide you step-by-step at [trailhead.salesforce.com](https://trailhead.salesforce.com) now!

**3** | Download the complete **Trailblazer's Guide to Apps** to see how dozens of businesses across 9 industries are leading their businesses with apps.

# The Salesforce Advantage

Salesforce has always been an innovator. Seventeen years ago, we pioneered a new technology model with our cloud platform. We were born in the cloud and we are 100% cloud today. But our real success is driven by our customers' success. Over 100,000 companies worldwide trust our secure architecture and 99.9% uptime – and rely on three seamless, automatic upgrades each year to keep their business growing. By removing the burden of maintaining costly legacy infrastructure, our customers are free to focus on innovation.

The Salesforce platform is a complete CRM solution that connects every facet of your business so you can connect with your customers in a whole new way. There is simply no better platform for building apps – from low code/no code to elaborately customized apps – or a larger ecosystem of readymade apps, available on our AppExchange. No matter how big – or small – your company, whatever your industry or current systems, Salesforce is the right partner to help you become the IT leader you need to become to lead your business into the future.





# The Benefits of Salesforce

**Lightning Platform** – Now anybody can create rich, engaging apps that deliver a beautiful user experience on any screen. The Lightning Platform is the fastest way to build connected, scalable, secure apps that connect you to your customers in new ways.

**Artificial Intelligence** – More intelligent. More predictive. Salesforce Wave Analytics and our new Einstein – the world's first comprehensive AI for CRM – transform all the data from your customers, suppliers, and the Internet of Things into insights and actions that will drive sales, product enhancements, and customer satisfaction.

**Mobility** – The mobile revolution could not have happened without the cloud revolution. Everything we do is mobile-ready – and with App Cloud Mobile, now you have everything you need to build, run, and manage engaging mobile apps that are secure from day one.

**Productivity** – Automate processes, give your employees a 360° view of your customers from any device, connect your field staff to HQ – the Salesforce platform replaces infrastructure with constant innovation so you can increase productivity in every department, every employee, across the business.



Find out more at [salesforce.com/app-cloud](https://salesforce.com/app-cloud)

Or call now to speak with one of our experts: **1-844-463-0828**





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CONNECT TO YOUR CUSTOMERS  
IN A WHOLE NEW WAY