

### Introduction

Healthcare is undergoing a massive transformation. Regulation and payment reform are shifting the focus away from volume of care to delivering value-based care. The race to deliver value is driving an increasingly interconnected health system as shared risk, deepened partnerships, and the proliferation of non-traditional care teams begin to take shape.

But as technology pushes healthcare and life sciences organizations toward connectivity and easily accessed information, bridging the gap between data silos remains a pervasive challenge in the industry.

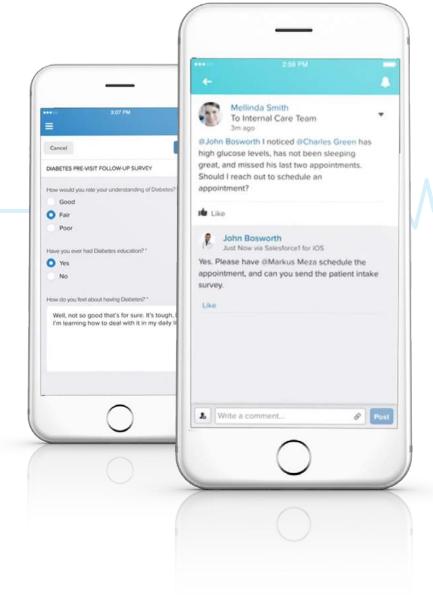
All of this raises a fundamental question: How can healthcare and life sciences organizations meet rising patient expectations and make the integration process as seamless as possible?

Meet Salesforce Health Cloud, which harnesses the power and security of the cloud, as well as social and mobile technologies, to deliver a holistic and real-time view of each patient's health data and care plan. With Health Cloud, caregivers have the information they need at their fingertips to build stronger 1-to-1 relationships.

In this e-book, we'll discuss the different use cases and approaches your organization can take to integrate with Health Cloud.

# What Is Health Cloud?

Health Cloud is a patient relationship platform that streamlines care coordination for patients with the goal of putting every patient at the center of the care system. It accomplishes this by providing a complete view of the patient, smarter patient management, and a connected patient engagement experience.

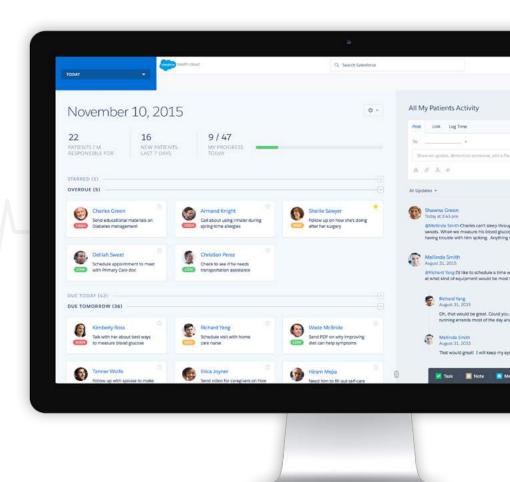


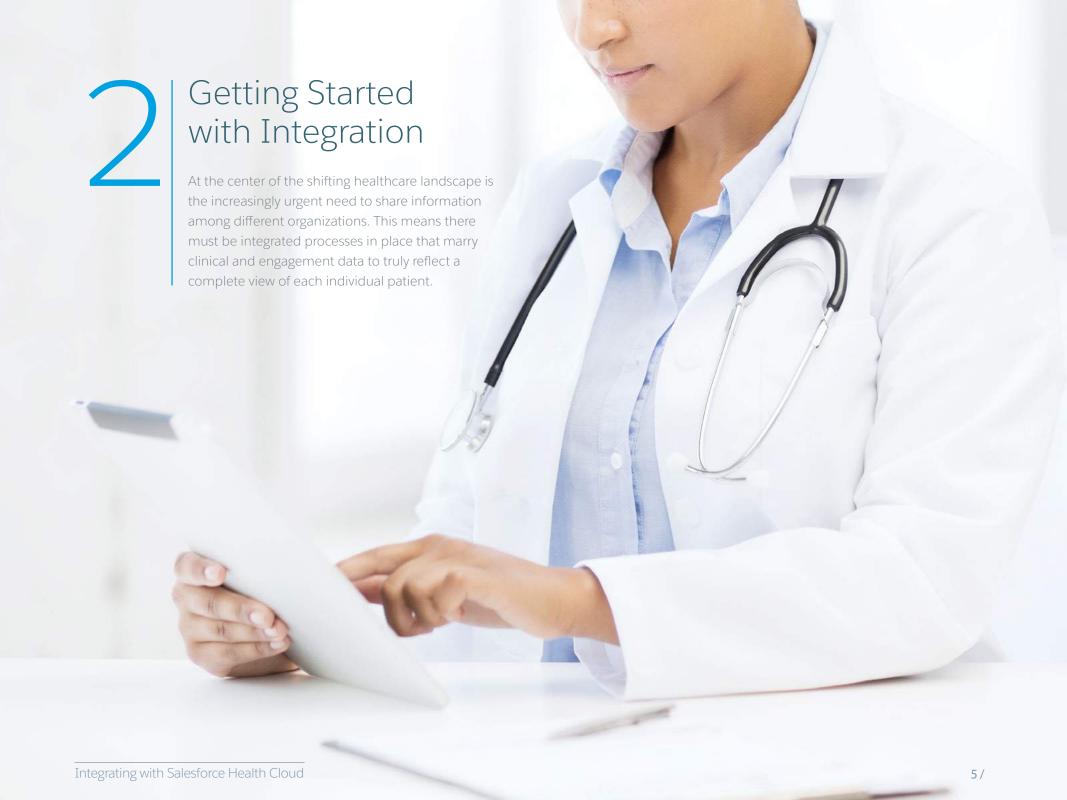
Within Health Cloud you can create rich, contextual patient profiles that integrate patient data from the electronic health record (EHR) as well as third-party data from medical devices and even wearables to measure sleep patterns and activity levels. With a panoramic view of the patient, care teams have easy access to clinical and nonclinical patient data, including current health conditions and medications, appointment history, and communication preferences. These complete patient profiles are available at the health professional's fingertips – meaning up-to-date patient data is easily accessible and actionable from any device.

Health Cloud also enables care teams to work smarter across entire patient groups to provide insightful care faster. The "Today" page boosts productivity by displaying provider tasks organized by priority; the provider can further organize and segment patients by category, such as those with high blood pressure, and set tasks based on that patient group. You can easily map out a patient's entire personal and professional caregiver network and connect and collaborate with different caregivers by using secure and private messages within Health Cloud.

With Health Cloud, you can deliver the smarter, connected, personalized experience your patients expect and deserve.

Watch the Health Cloud Demo















To start evaluating the steps you need for system integration, you must first identify and then develop the use case. In doing so, a well-designed use case will not only determine the integration requirements, but also assist with scoping the integration. Let's take a closer look at the methodology of identifying and developing the use case.

#### 1. Identify the use case.

Your use case is the scenario or the process that you want to build into Salesforce. For example, you can automate management of high-risk patients or collaborative care planning. Be sure to develop the use case with input from a diverse team of business and clinical owners and IT specialists.

#### 2. What data is needed?

Your use case will inform what data is needed to streamline each scenario. For example, if you'd like to case manage condition-specific patients, you will need the problem, diagnosis, or health issue information for all patients.

#### 3. Determine source systems.

Once you have pinned down the data that coincides with your use case, you can determine the source system needed for the integration, such as the EHR or the scheduling, laboratory, or pharmacy information systems.

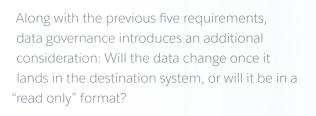
#### 4. Determine directionality of the data.

When assessing data directionality, consider the following questions:

- $\cdot$  Will the data flow one way from the source system, or two ways between both systems?
- · Is there a middleware provider brokering the integration?

#### 5. Determine the timeliness of the data.

When determining timeliness of the data, make sure to keep this question in mind: Is the data you're accessing needed in real time, such as to support scheduling? Or will a less time-sensitive asynchronous exchange sufficiently meet the need?



To ease integration efforts, look to see if the data required is pulled from source systems for other purposes, for example, feed to a data warehouse, feed supporting a related integration. Here are some additional questions that will help advance your integration:

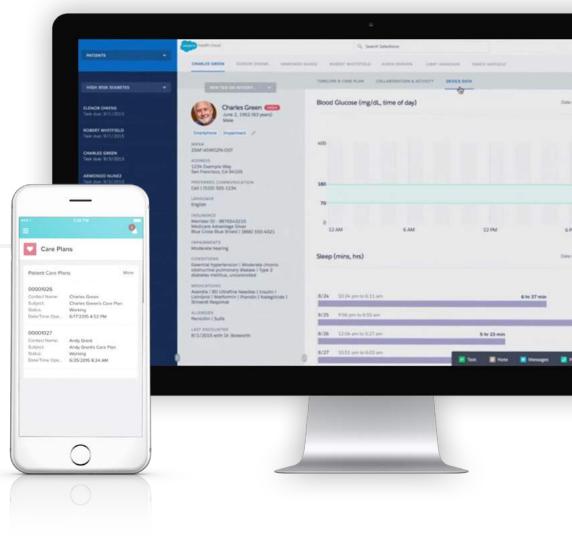
- · Who is responsible for integration in your organization?
- · Do you have a preferred implementation partner?
- Do you have a published set of APIs or integration web services?

Once you've answered these questions, you're ready to take a more in-depth look at the different types of Health Cloud integrations that exist.

# 3

# Integrating with Health Cloud

A typical healthcare organization uses a myriad of applications, many – or most – of which are not designed to work with one another out of the box. However, in order to connect to your patients in the personal, 1-to-1 way they expect, integrating these independent yet related apps is a necessity.



So how does an integration work?

Each application can have data, business logic, presentation, and security layers, all of which are possible opportunities for integration. Here are the various integration options related to integrating with Health Cloud.



#### SECURITY INTEGRATION

As you develop on the Salesforce platform, it is important to consider security at every step of the process – from design and development to testing and QA.

With Security Integration, you can integrate authentication mechanisms across applications to improve the user experience and minimize user administration. To make this work, client applications must log in using valid credentials for an organization and are subject to the same security protections that are used in the Salesforce user interface.

To help you along the way, Salesforce Security is constantly developing and updating tools and resources for you to use. Learn more.



## USER INTERFACE INTEGRATION

Combine the user interfaces (UI) of two or more apps to create composite apps. With Salesforce, this requires little-to-no rework of the UI of each individual app. This approach provides your users a single point of entry into multiple applications related to Health Cloud.



## BUSINESS LOGIC INTEGRATION

Business logic often spans multiple application systems. Extending related business logic from one app to another helps to implement complete end-to-end business processes. Salesforce supports the extension of business logic that originates from outside the platform (inbound logic integration) and from within the platform itself (outbound logic integration). Learn more.

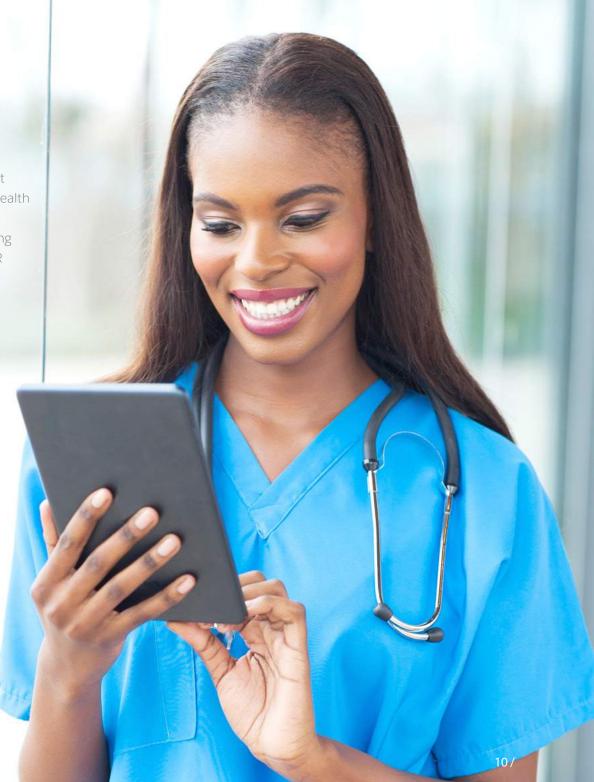


#### **DATA INTEGRATION**

Integrating applications at the data layer is a common scenario. For example, multiple apps written in different programming languages can all use an open API and manage related data in one shared database. Health Cloud supports a range of APIs, including SOAP, REST, Streaming, Bulk Data Transfer, and so on. Learn more.

# Case Study: UCSF

For the last 16 years, Salesforce has served a vast array of healthcare companies, including large health systems to clinical research institutions. In this section, we'll talk about how UCSF is transforming breast cancer screening and treatment with EHR integration through a middleware partner.





# Athena project

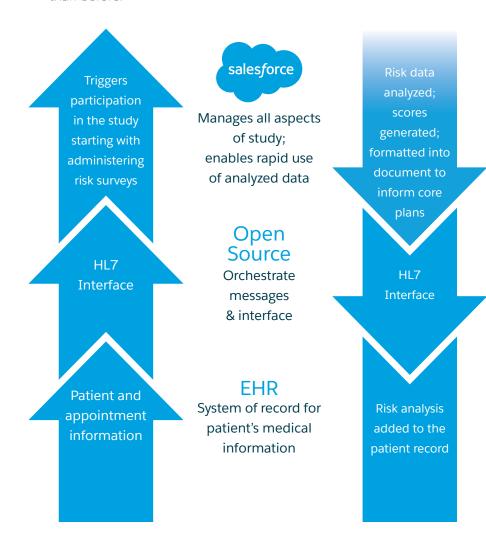
The UCSF Athena project is a UC-wide collaboration of medical centers designed to change the way they screen, prevent, treat, and manage the care of breast cancer. The Athena breast cancer screening trial looks at how we can transform breast cancer care by looking at a woman's individual risk factors and tailoring treatments based on those risks and needs. Data is at the core of the Athena study, and Salesforce enables Athena to conduct the trial for 100,000 women in a completely different way by capturing the data, analyzing it, and applying it to real-world treatment fast.

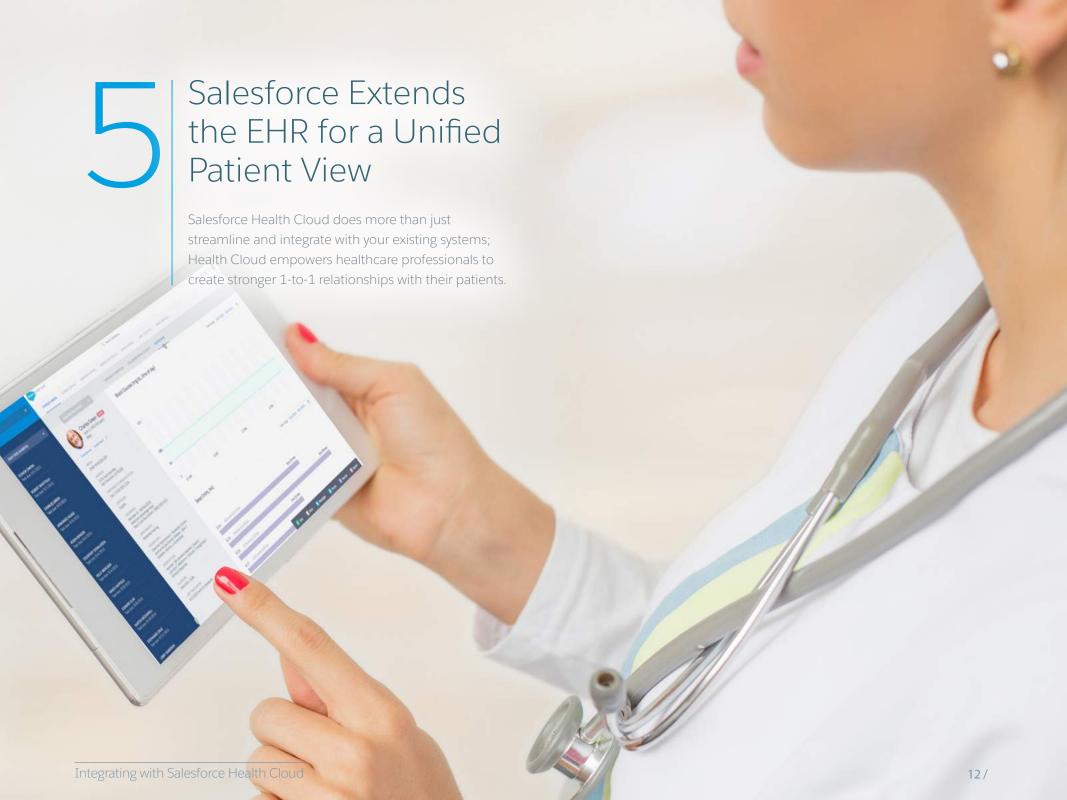
The UCSF team uses a bi-directional interface with its EHR. UCSF pulls admission, discharge, and transfer messages from its EHR via open source middleware into Salesforce. This then triggers risk surveys to be administered to patients through Salesforce. Upon completion, the survey produces a risk score that is included in a letter to the referring physician and sent back to the EHR.

As a result of this integration, UCSF can now conduct a trial of a 100,000 women, capture that data, analyze it, and apply it to the real world rapidly.

# UCSF integrates with EHR to improve breast cancer care and outcomes.

Breast cancer study: Administer risk surveys for mammogram patients, generate a risk score, and share with the primary care physician through the patient record. Allow the study to capture data, analyze it, and apply it to the real world much more rapidly than before.





With Health Cloud, real-time EHR, and device insight, healthcare professionals can better understand the entire patient story – including health history and current care plans – and collaborate on treatment. This allows providers and care teams to engage with patients at a deeper level. Effective and timely patient relationship management can result in better care and improve clinical outcomes.

In addition to patient relationship management, Salesforce Health Cloud elevates the collaboration and communication experience within the care team network. Everyone within the network can assign tasks, collaborate, and send secure messages on any device. Effective collaboration tools can lead to increased productivity across care teams, which gives them more time to focus on providing quality care. Health systems can also strengthen their referral networks and increase patient volume through effective engagement. With real-time data in Health Cloud, healthcare is a team sport delivered among internal, external, traditional, and nontraditional providers as well as patients.

Patients are no longer content taking a back seat – they want to be driving his or her own care and making the choices about how they engage with providers. Health Cloud encourages the patient to be an active partner in their own care and unifies patient interactions, including the sharing of educational content, appointment reminders, and resources such as support groups, as well as digital, convenient mobile messaging – just as today's patient prefers.



## Conclusion

To succeed in an evolving healthcare industry, providers must build personalized, engaging relationships with each patient. Integrating your EHR data with Health Cloud can unlock a panoramic view of each patient and foster the use of complete patient views in a smarter, more personalized way.





#### THE CUSTOMER SUCCESS PLATFORM

SALES SERVICE MARKETING COMMUNITY ANALYTICS APPS IOT









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