



CLIENT

An Austrian company for production, sale, and resell of wearable medical devices (holters).

GOALS

There are 5 key areas of the company's business:

- Working with suppliers;
- Working with clinics (B2B);
- Working with insurance companies;
- Service and warranty for the medical wearables;
- Collecting and providing information from devices

The client approached to us with a request to upgrade the ecosystem of their wearable health monitors and apps by integrating Salesforce to all available modules. It implied replacing current legacy systems with Salesforce-based modules where possible.

INDUSTRY

Healthcare

SCOPE OF WORK

The initial briefing resulted in the following list of tasks:

- Customize Sales Cloud for working with suppliers and clinics;
- Develop a custom API gateway based on Jitterbit Harmony Platform for integration with the third-party systems of the client's key suppliers;

- Integrate the ecosystem with current bus service that provides information on insurance payments and rates and on automatic transfer of the claims requests;
- Customize Salesforce Health Cloud for compatibility with internal systems that store information about patients and their wearable devices. Clinics acted as both business accounts in Sales Cloud and Institutional Provider in Health Cloud. The remaining objects of the Health Cloud model (the entire system around a patient record) were mapped on to patient's data;
- According to Austrian regulation rules on storing patient's data on the cloud servers, Salesforce couldn't actually store sensitive information. It only had a data structure and basic information that was not related to the regulation rules. Other data was stored remotely and pulled up into Salesforce to custom pages in live mode via Jitterbit as a middleway, without being stored on Salesforce servers. As a solution, we've integrated SSL-empowered and FHIR-based middleware with backend processing on the client's end and data being encrypted and hosted externally. Also, we've set storage of the ORU data outside of Salesforce and added hashes to match PIDs and relations of Salesforce with backend data.
- Develop a module for integration with Salesforce on the basis of client's mobile platform and website. The integration module is aimed at tracking information about onboarding process when the device is activated and initial verification or activation of insurance;
- Patient consent capturing, meaning that docuSign utilized file management with an external storage provider (like AWS).

MAIN CHALLENGE

Article 17 (1) of the Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data states the following:

“Member States shall provide that the controller must implement appropriate technical and organizational measures to protect personal data against accidental or unlawful destruction or accidental loss, alteration, unauthorized disclosure or access, in

particular where the processing involves the transmission of data over a network, and against all other unlawful forms of processing.”

It means that in Austria, health data must be encrypted when stored in cloud computing storage environments. The transfer of health data is only allowed on closed networks or in encrypted form.

SOLUTION

1. First, we suggested a CipherCloud-based solution, which secures sensitive data storage in encrypted form on the Salesforce basis. In this case, logging in to the Salesforce via CipherCloud proxy interface ensures access and easy navigation within the system. In fact, the platform transfers information about the decoding keys to the Salesforce and replaces the encrypted strings with the decrypted ones right while the page is loading.

2. As another option, we’ve offered replacing default Salesforce interfaces with custom ones. Salesforce stores only the database structure and relationships but not actual data. In this case, data needs to be requested when loading custom pages in live mode.

After weighing the cost of both options and the risks, the client have chosen the second one.

Besides, Cypher Cloud showed mediocre performance results during PoC that did not satisfy the client.

RESULTS

In 6 months, we’ve completed the planned scope of work and had a chance to run the updated Salesforce-based platform in the first pilot clinic. Both employees and customers were satisfied with the MVP.

After getting MVP feedback, we’ve continued solving issues and making improvements within the next 6 months.

Then Salesforce was scaled up to cover the whole company. Eventually, the main achievement for the client was optimizing their internal IT support team's workload, since the previous solution was based on many legacy systems.

OUTCOMES

- 54% less cases in the internal support system processed by employees. This was made possible due to stabilizing infrastructure and replacing significant part of the server infrastructure support with the cloud;
- 25% faster speed of closing support cases due to integration of all-in-one screen;
- Introduced custom API gateway for suppliers made it possible to automate and establish direct integration with another 2 major suppliers. Before that, they communicated with the client by means of sending excel catalogs.