



# SAP Innovation Awards 2019 Entry Pitch Deck

Transforming Employee Benefits Systems Using Design Thinking and SAP Technologies  
Boston University

# BU Benefits Center

## Boston University

BOSTON  
UNIVERSITY

### “Quote”

“Working with the SAP design team gave us observation and interview techniques that allowed us to see our existing enrollment applications through the eyes of our employees and mitigate our preconceived ideas about what needed to change.”

--Ursula Elsinger, SAP  
HCM Functional Analyst,  
BUworks

“The team felt that the new application was a significant factor in the volume of work being reduced.”

--Joseph Vento, BU HR  
Service Center  
Assistant Manager

### Challenge

Previously, BU used a combination of SAP, legacy applications, and paper form submissions to facilitate employee enrollment in benefits. The outdated system was creating costly mistakes for its employees and creating dissatisfaction among users.

### Solution

This project sought to improve the usability and consistency of benefits enrollment through the implementation of a single solution / point of entry for employee enrollment.

### Outcome

BU implemented a simplified/consolidated benefit enrollment application that is a straightforward, highly usable, self-service enrollment process, thereby leading to less employee confusion and greater employee satisfaction.

**106% increase** in a “Very Satisfied” rating of Overall User Satisfaction when using the new app

**130% improvement** in an “Extremely Easy” ranking of Overall Ease of Use with the new app

Overall reduction of incoming paper forms during enrollment windows to be processed by HR department



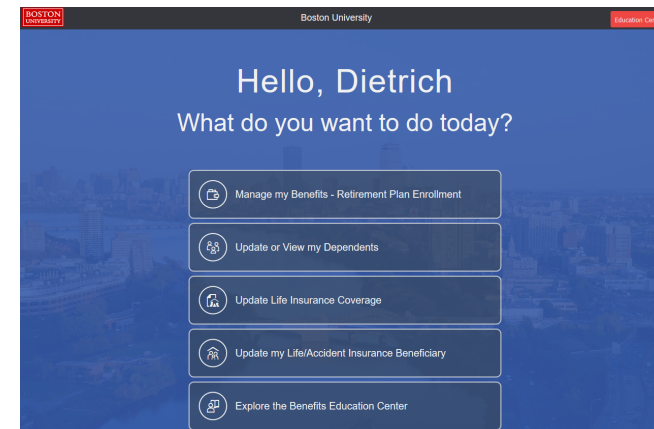
## Business Challenge & Objectives

**Challenges:** Boston University is a private, non-profit research university located in Boston, MA with 17 schools and colleges serving over 34,000 undergraduate and graduate students. BU employs over 10,000 faculty and staff, and its benefits enrollment system is vital to a smooth employee experience.

Previously, BU used a combination of SAP, legacy applications, and paper form submissions to facilitate employee enrollment in benefits including health, dental, flexible spending accounts, life insurance, and retirement plans. This project sought to improve the usability and consistency of benefits enrollment through the implementation of a single solution / point of entry for employee enrollment.

**Objectives:** Implement a simplified/consolidated benefit enrollment application that is a straightforward, highly usable, self-service enrollment process, thereby leading to less employee confusion and greater employee satisfaction. The system needed to meet the following requirements:

- A user friendly enrollment application that is simple to use
- Requires no additional training or guidance for the user
- Is intuitive and leads user through the process
- Modern technology with adaptive UI
- Embedded and accessible tier zero content





## Project / Use Case Details

BU collaborated with SAP's AppHaus to re-imagine a legacy retirement application and the standard ESS Benefits Business package into a consistent user experience: the BU Benefits Center.

The project followed the Design Thinking methodology that SAP uses as part of its S4/HANA and Fiori evolution. This user-centric approach started by using Qualtrics to gather benchmark feedback via a Pre-UX Survey on user behavior and characteristics on the existing experience. Then the team conducted user research through observations and interviews to study user flows in each existing enrollment process. Video recording of these interviews captured the full user experience, including emotions of frustration and confusion. These insights helped chart the process flow via a journey map with a representation of the pain points. This user research was then the catalyst to conduct two collaborative ideation workshops which included a multi-disciplinary team of users from across the university. This extended team of users, armed with the user research knowledge, transformed the ideas that surfaced into new application proposals and were asked to vote on the most important features.

This information was then used by the SAP AppHaus team to design a single application for all BU employees, incorporating key features identified during the workshops. Low-fidelity to high-fidelity prototypes were created using SAP Build and InVision tools. The SAP Build tool was then used to conduct feasibility studies with that multi-disciplinary set of users on the prototype designs. SAP Build provided key information regarding the design's intuitiveness and navigation through comments and heatmaps.

BU's IT, in conjunction with key SAP support, used the SAP Cloud Platform and the SAP Web IDE to develop the new responsive application in SAPUI5. This application was deployed on an on-premise Gateway Server and was accessed through the SAP Fiori Launchpad and Enterprise Portal. BU's IT and Business departments worked collaboratively to thoroughly test the application. It was crucial to have a stable, perfectly working application that was also an amazing user experience.

The application was deployed into production in two phases to meet key benefit enrollment timelines. Using Qualtrics again, the team conducted a Post-UX Survey on the new application and process. Feedback on the new benefits app compared to the old has been nothing short of amazing. People reported it's not only a pleasant and easy experience to use but it has saved them money by preventing costly benefits mistakes that impact them for an entire year.

Prior to this innovation, the BU community had long been unhappy with SAP's UX and complexity. The Design Thinking process and the technology innovation of this new app not only solved a crucial business problem but has helped to begin a transformation in thinking about how future solution innovations will be conducted to continually improve the user experience in SAP and make SAP an asset to the University.





# Benefits and Outcomes

## Business / Social

- Optimized employee satisfaction through streamlined benefits enrollment processes
- Platform is self-sufficient, economical, and adaptable; can continue to grow with BU and be adapted to other uses across the campus
- Using technology to do more with less through process automation and freeing up people to do meaningful work
- Adopted design thinking process in the approach toward innovation

## IT

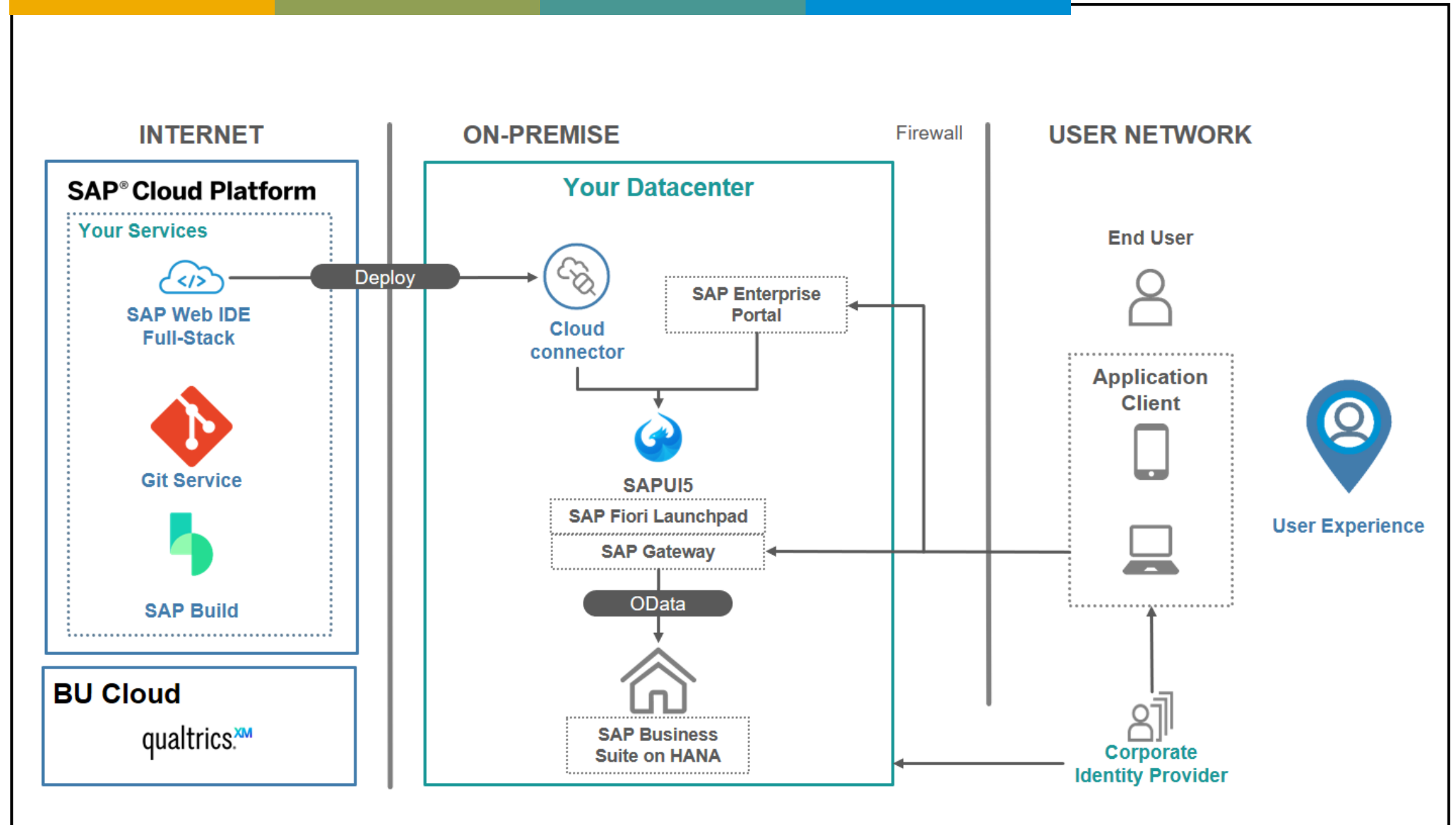
- Streamlined multiple digital and physical processes into a single easy-to-use interface for all BU employees
- Automated paper processes to adjust general benefits after life events.
- More efficient use of technology; allows for greater control and visibility
- Improved SAP's reputation for innovation and effectiveness on campus

## Human Empowerment

- Eliminated costly mistakes and errors that impact employees for up to a year.
- App guides users through the enrollment process to help them complete application quickly and with more accuracy; guided questions and choices eliminates redundancy and manual data entry errors
- Centralized video and helpful benefits documentation that is easily accessible for answers while in the enrollment process



# Architecture





## Deployment

Date of Deployment or POC: November 2017 and October 2018

Number of live users: 10,000+

### SAP Technologies Used:

Product	Status
SAP Cloud Platform – SAP Web IDE Full Stack, SAP Build, SAPUI5	In Production (Live)
SAP Fiori Launchpad and Gateway Server (On-Premise)	In Production (Live)
SAP Suite on HANA—ECC (On-Premise)	In Production (Live)
SAP Enterprise Portal (On-Premise)	In Production (Live)
SAP Qualtrics	In Production (Live)

Server Processor: Intel Xeon

Linux Distribution: Red Hat



## Emerging Technologies and Use Cases

The following Emerging Technologies and use-cases are part of the project and describe the contribution

	Technology or Use Case	Yes/No	Contribution to Project
1.	Machine Learning / Artificial Intelligence	No	
2.	IoT	No	
3.	3D printing	No	
4.	Blockchain	No	
5.	API Economy / Integrate the Intelligent Enterprise	Yes	Maximize investment by integrating apps with the standard SAP core code
6.	Cloud Native / Event Based Architectures	No	
7.	Extending the digital core with SAP CP / ABAP in SAP CP	Yes	SAPUI5 via the SAP Web IDE and Build creates a consumer grade application
8.	SAP Leonardo Application ( extending SAP application, using Industry Innovation Kits or result of Design Thinking workshop)	Yes	Design Thinking Workshops included users early to refocus the human meaning for technology, highlight the user experience, and build trust in the community