

Case Study: How To Transform The Employee Experience With Microapps

CBSi's Journey To Solve Its Application Productivity Problem

by Michael Facemire and Andrew Hewitt

December 20, 2017

Why Read This Report

Employees use a variety of mobile and desktop applications to access information they need to accomplish their jobs. However, these apps are often siloed, are difficult to manage, and don't offer a tailored experience that allows individual employees to focus on the tasks that matter most in their work. Infrastructure and operations (I&O) professionals should read this report to learn how one large media player used microapps to transform its employee application strategy and provide actionable, relevant data to its employees through a single digital portal.

Key Takeaways

CBSi Had An App Adoption Problem

The company had invested in many employee-facing applications, but hardly any employees were using them.

CBSi Worked With Sapho To Simplify And Consolidate Applications Into A Single Portal

Instead of deploying multiple enterprise apps to employees, CBSi identified the most important tasks that employees wanted to accomplish and streamlined them in a single, omnichannel feed using microapps.

CBSi Improved The Employee Experience

CBSi increased app adoption, spurred collaboration between employees and the tech organization, introduced more self-service into the workforce, and simplified application management.

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December 20, 2017

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Situation: CBSi's App Strategy Was Hurting The Employee Experience

One of the largest network purveyors of online content in the world, CBS Interactive (CBSi) is a central source of information and entertainment for consumers who don't have time to sit down each day and watch TV or listen to the radio. The company's websites stream premium content for brands that most consumers in the US know and love, including *60 Minutes*, *CBS News*, *Last.fm*, *The Late Show With Stephen Colbert*, and *TechRepublic*. But what does streaming *The Late Show* at work on your iPad have to do with I&O and the employee experience? As it turns out, a lot.

Poor Application Experiences And A Need For Greater Agility Made Change Essential

Like many companies, CBSi has a variety of internal line-of-business applications to help employees operationalize business processes. Some employees found these useful, yet many abandoned them because they were overengineered and lacked useful content. As a result, CBSi was spending millions of dollars on applications that many employees didn't even use. Steve Comstock, CIO at CBS Interactive, said that those that did use them "would spend 80% of their time trying to figure out an application and only used about 20% of the functionality." CBSi needed to fix its application strategy because:

- › **Onerous applications went unused.** As part of its annual review process, CBSi requires employees to meet with managers to discuss their performance, feedback, and goals for the coming year, using a software-as-a-service (SaaS) HR app. However, employees and managers alike needed to fill out seven pages of feedback to complete the review, and only 50% of employees were using the application. To better monitor employee performance with relevant KPIs, CBSi had deployed a market-leading analytics platform to give employees insights into performance numbers like average deal size and number of closed deals.¹ However, when managers needed to check these KPIs, they had to dig through vast amounts of data to find the numbers they were looking for — and out of the 5,000 licenses purchased, employees had used only 20 of them.
- › **Building native mobile apps prohibited innovation.** CBSi's app strategy was also a struggle for the technology department. "While mobile apps are today's buzzword, developing and maintaining the mobile app is very expensive, and the ability to iterate is very slow. There's also the amount of time it takes to get applications published on public app stores, due to the vetting those companies require," said Steve Comstock. CBSi couldn't innovate quickly enough to keep pace with the demands of its employees, who wanted fast, easy access to enterprise systems and data.
- › **Internal app portfolios became unwieldy to manage.** The more enterprise applications CBSi deployed, the harder it became for I&O administrators to set access levels for users. CBSi was struggling to provide the ideal levels of access for employees and found that software vendors had restricted approaches to access management, such as super-basic user, super user, and admin user. The company was looking for an approach that would give employees one set of applications with one corresponding level of access.

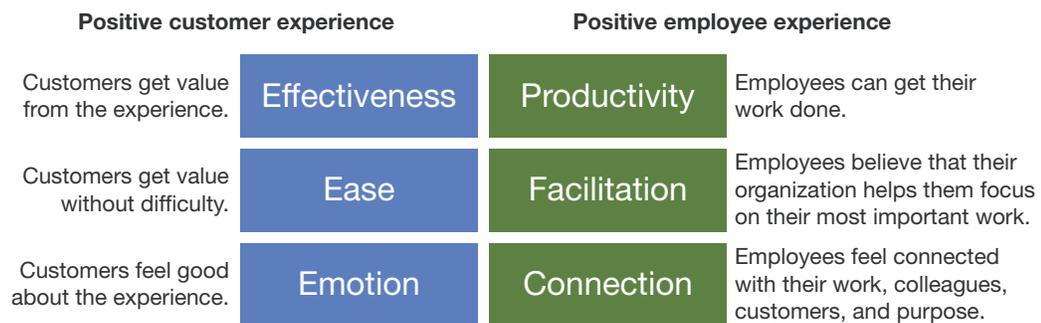
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Solution: Sapho Helped CBSi Improve The Employee Experience

CBSi's vision of providing consumers with content wherever, whenever, and on whatever device wasn't mirrored in the way it provided technology to its employees. Forrester's employee experience playbook shows that many companies don't understand the essential link between the customer experience and the employee experience.² The factors that drive a superior customer experience mirror those that support a positive employee experience (see Figure 1). Recent psychological research shows that happier employees generate 81% higher customer satisfaction and half the employee turnover — and the key is helping them get meaningful work done.³

FIGURE 1 The Factors That Lead To Positive Customer And Employee Experiences



Sapho Modern Portal Brought Microapps And Improved Developer Tools To CBSi

CBSi's breaking point came when Jim Lanzone, CEO of CBSi and Chief Digital Officer of CBS, realized how arduous it was for employees to complete the annual review process. Jim served as the chief champion of an initiative to change the way CBSi supported its employees with technology, and he made it his goal to get employees the information they needed simply, just the way CBSi's customers did. To do this, CBSi partnered with Sapho, a digital experience portal vendor that specializes in internally facing employee technology. The solution had three parts to it:

- 1. Microapps to simplify application access.** Microapps are miniature workflows that surface work-related data and tasks from back-end enterprise systems. They deliver personalized notifications, proactive updates, and one-click tasks in a feed that users can access from an omnichannel portal. For example, CBSi HR professionals use a microapp within the Sapho feed to notify employees of new training and allow them to register with one click (see Figure 2, see Figure 3, and see Figure 4).
- 2. Developer tools to speed app development.** Only one developer builds, prototypes, and deploys microapps via Sapho Modern Portal at CBSi. The solution comes with prebuilt templates and connectors that allow developers to build a microapp on top of legacy systems, internal software,

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SaaS apps, web services, databases, and data warehouses. The solution requires some coding experience, but it is suitable for business developers who can utilize its drag-and-drop functionality and rules engine or use JavaScript to write more advanced workflows.⁴

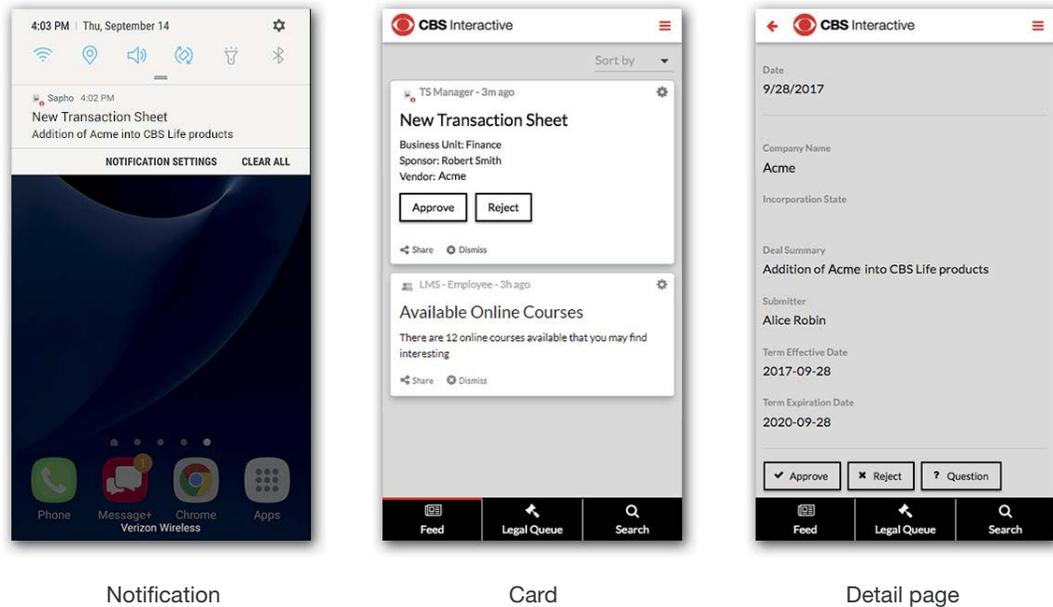
3. **Server infrastructure to accommodate sensitive data.** Customers deploy Sapho Modern Portal as a Java application on-premises or in a virtual private cloud from AWS, Google, or Microsoft. CBSi deployed Sapho on-premises because it was accessing local sensitive business data (see Figure 5). It uses Active Directory as an authentication method and offers a VPN for employees who need to access enterprise resources off the network.

FIGURE 2 CBSi Has Deployed Many Microapps Across Multiple Lines Of Business

Business role	Examples of microapps
Human resources	<ul style="list-style-type: none"> • Look up employees in a directory or get office information (location, phone number, etc.). • Notify when an employee has joined/left the company. • Provide a single view of employee personal data, such as compensation, performance data, promotion history, and compliance training. • Publicize new training courses and allow employees to sign up with a single click.
Corporate communications	<ul style="list-style-type: none"> • Provide employees with a single place to get company news. • Notify employees of new policies.
Technology organization	<ul style="list-style-type: none"> • Provide an aggregated view of events to the tech organization across multiple systems. • Send service desk tickets to employees in apps, browsers, messaging channels, etc. • Tune service desk tickets to priority levels to increase response times.
General knowledge worker	<ul style="list-style-type: none"> • Initiate and complete an employee annual review process. • Request time off. • Request/approve an expense report. • Provide a list of tasks to complete for new hires on their first day. • Deliver relevant paperwork and reading materials to new hires.

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FIGURE 3 An Example Of An Improved Request Microapp In The Mobile App

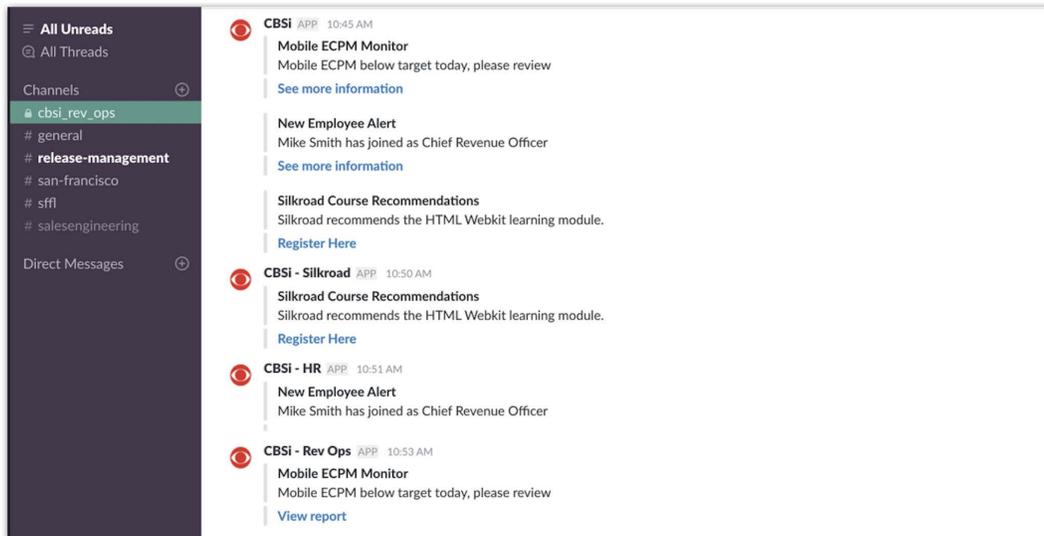


Source: CBSi/Sapho mobile app

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FIGURE 4 An Example Of A Notification Delivered Via Slack

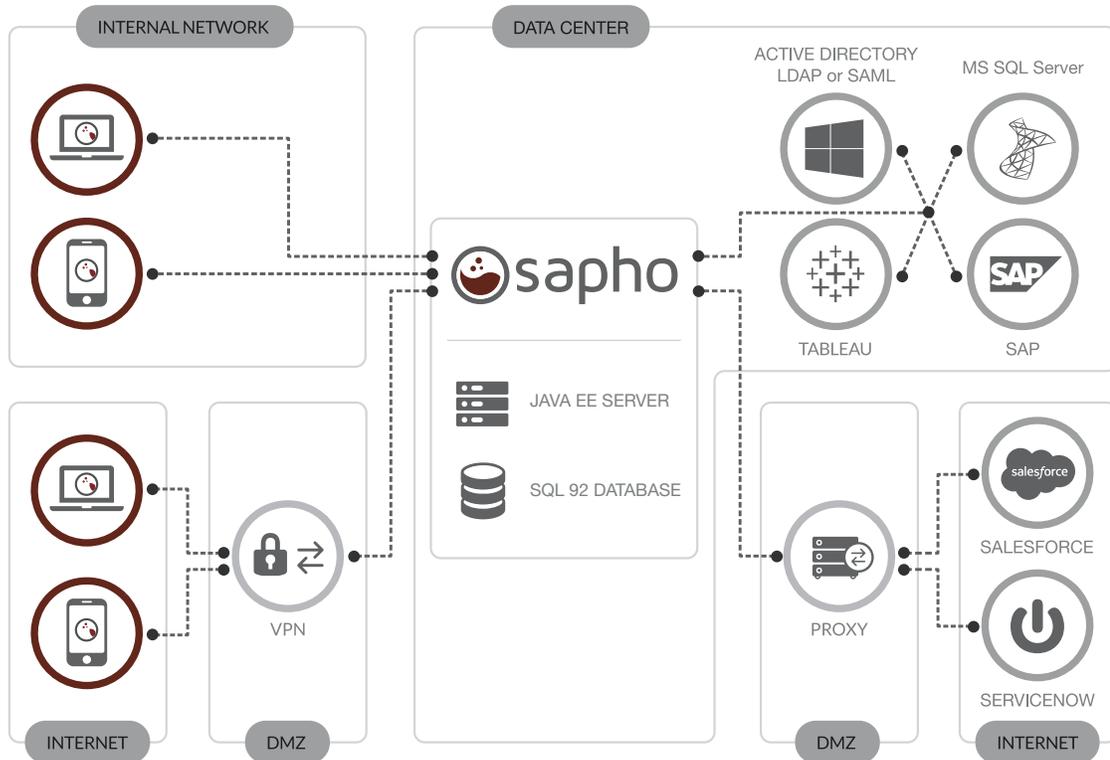


Source: CBSi/Sapho mobile app

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FIGURE 5 The Sapho Modern Portal On-Premises Architecture



Source: Sapho website

Microapps Offer A Path To Better Employee Productivity

CBSi's key technology change was introducing microapps to employees, which had a tangible impact on employee productivity.⁵ This approach to application delivery can help workers:

- › **Take actions quicker and maintain a state of flow.** Microapps allow employees to take action in the moment without having to log into an additional app. The pioneering psychologist Mihaly Csikszentmihalyi describes flow as “a pleasurable experiential state that occurs during full-capacity engagement in which an individual is performing at a level that is matched with the demands of the task.”⁶ In a state of flow, people perform at their best. It is not only faster for employees but also limits the amount of context switching they need to do, a key driver of distraction in the workplace.
- › **Consolidate job-related information in one place.** Microapps give organizations the flexibility to present information where their employees are, whether that's in a messaging platform, such as a Slack channel, or in an email, intranet, or native application. Because microapps pull information

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from multiple sources and send it to whatever channel the employee is using, employees have a single historical record for work-related information and don't need to hop around to different applications to gain additional context when they're trying to solve an issue.

- › **Receive only the information that is relevant to them.** Sapho Modern Portal allows employees to customize their feed. For example, if a sales leader doesn't want to waste time approving sales that are less than \$10,000, she can configure a rule that only presents CRM data for customers spending more than \$10,000 in a single transaction.

Results: CBSi Employee Experience And Culture Received A Lift

A year after deploying Sapho Modern Portal to its employees, CBSi has created microapps for thousands of employees across the company. These have made it easier for employees to find information and accomplish quick tasks and have spurred greater collaboration between business and technology teams while decreasing the application management burden. Some highlights are:

- › **Increased app adoption.** CBSi saw an immediate lift to employee app usage. The maligned annual review app, which required seven pages and had only a 50% adoption rate, spiked to 90% within one year of deploying the Sapho review microapp.
- › **Greater collaboration between technology and business teams.** CBSi employees sit side by side with developers and create microapps together. This powerful form of collaboration shows employees that the organization 1) wants them to be productive, 2) will facilitate productivity by giving them tools to do their jobs, and 3) understands that personal connection and a sense of purpose is a strong determinant of workplace success.
- › **Faster service resolution.** CBSi finds its employees are much more likely to report problems with technology than they were before because users do not need to log into a service desk application to create a ticket. For example, employees in a remote office were experiencing poor Wi-Fi connection. "Without Sapho, we probably would have gone months without fixing the Wi-Fi connection there," said Steve Comstock. With Sapho, they drastically decreased that time.
- › **Streamlined application management.** Technology management manages only the channels in which employees access their microapps — such as Sapho App, web browsers, or the corporate messenger platform — instead of a multitude of proprietary apps on individual devices. And the technology department no longer relies as much on building native apps with slow release processes but can serve employees faster instead.

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Recommendations

Follow Five Steps That Helped CBSi Improve The Employee Experience

Implementing the new technology was the easiest part of the change; testing it with employees and driving continuous improvement was the hard part. Once CBSi decided it needed to change, the team took a structured approach to implementing Sapho by adhering to these tenets:

- › **Build a business case based on tangibles and intangibles.** CBSi determined that adopting the Sapho solution would greatly reduce its application spend due to lower licensing costs — a tangible outcome. However, it also knew that if it made apps easier to access and use, employee productivity (as indicated by higher adoption) would improve — an intangible outcome. For example, CBSi estimated that deploying Sapho would improve employee retention by 10% to 20% because employees would be happier, more engaged, and less likely to leave the company. With solutions that affect the employee experience, intangible factors can be critical components of a business case.⁷
- › **Interview employees to identify workflow inefficiencies.** In one example, CBSi found problems in onboarding new employees. The tech team sat down with HR employees, not just the leaders, and asked them simple questions: What drives you crazy about onboarding? What do you want employees to know about the company? What tools, people, and processes do employees need from the start? “All of a sudden, we were no longer IT professionals,” said Steve Comstock. “We had to put on our product development hats, develop personas, and figure out how to build the right tool for the right person.”
- › **Define success for each business role.** The standard success criterion across all microapps at CBSi is adoption. However, since each set of microapps serves a unique business role, CBSi developed unique criteria for each set. For example, CBSi uses year-over-year sentiment analysis, employee engagement, and employee satisfaction for its annual review microapp. Other microapps that derive information from back-end ERP systems will have different metrics. CBSi has deployed a microapp that helps find customers whose salesperson has moved on: The key metric is how quickly the microapp can identify an orphan account, notify the correct sales leader, and fill the vacant spot.
- › **Focus on one business role and highlight small wins.** CBSi didn't deploy microapps to every business role in the company immediately. Instead, it focused on solving one problem for the HR role: employee reviews. “Solve one problem for them, one thing that drives them insane, and make a small win,” says Steve Comstock. This helped the team gain the confidence of business units and become more proficient, with a product- and business-focused mindset.
- › **Establish guidelines for creating successful microapps.** Success has pitfalls: Companies can get overzealous and start creating microapps for every task an employee wants to accomplish. Some tasks are just too complex to miniaturize. CBSi set a guideline for employees: If it requires

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more than three workflows to complete a task, use the native application. For example, finance employees at CBSi may need to log into Oracle to complete an advanced accounting process that involves 10 separate tasks — making it a poor candidate for a microapp.

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Endnotes

- ¹ KPI: key performance indicator.
- ² See the Forrester report "[Use Customer Experience Insights To Unshackle Employee Potential.](#)"
- ³ Source: Tae-Youn Park and Jason D. Shaw, "Turnover Rates and Organizational Performance: A Meta-Analysis," *Journal of Applied Psychology*, March 2013.
- ⁴ See the Forrester report "[Mobile-First, Low-Code Platforms Close The 'App Gap'.](#)"
- ⁵ See the Forrester report "[The Future Of Enterprise Mobility.](#)"
- ⁶ See the Forrester report "[The Employee Experience Imperative.](#)"
- ⁷ See the Forrester report "[Build A Comprehensive Business Case For Technology Purchasing.](#)"

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