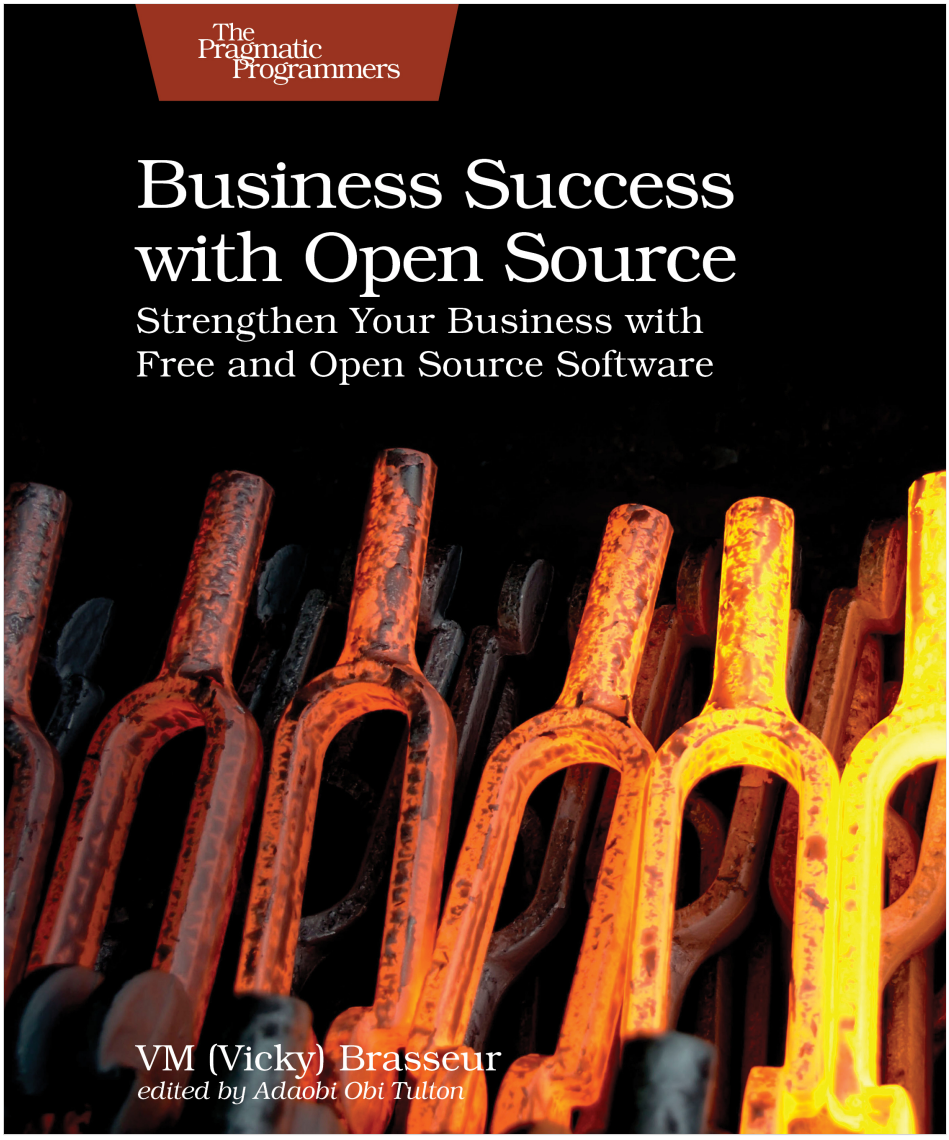

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Role of Inbound FOSS in Digital Transformation

One of the largest movements in business today is toward *digital transformation*. This is a customer-focused and technology-enabled evolution of the company such that it becomes digital-first in its operations, business models, and all other functions. Companies engaging in a digital transformation effort aim to automate processes, increase efficiency, decrease time to market (TTM), become more nimble in their response times, and uncover innovation opportunities.

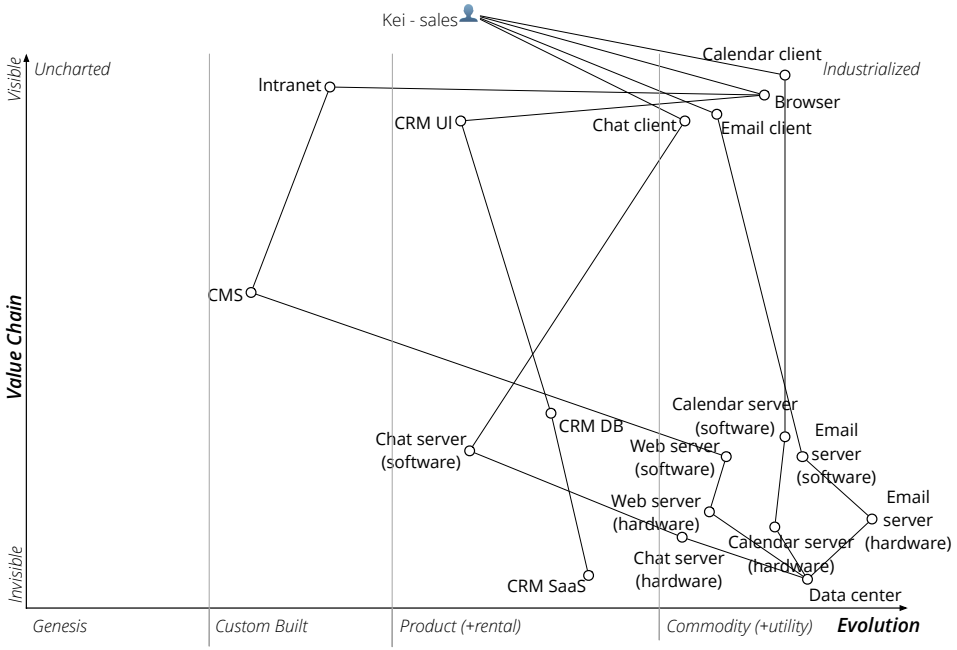
Digital transformation takes a holistic look at what's going on in the company and its business, so it therefore touches upon all aspects of both. Successful digital transformation sometimes requires dramatic culture change. For that and many other reasons, it's hard to do right (or at all), but the companies that make it work reap immense benefits that make all that effort worthwhile.

While the entirety of the complex topic of digital transformation is outside the scope of this book, the role inbound FOSS can play in your company's digital transformation effort most certainly isn't. When viewed through a digital transformation lens, developing a managed approach to inbound FOSS—rather than the accidental or incidental one so common in companies today—creates a strategic pillar for those efforts. Intentional action to select and maintain FOSS components when transitioning from analog to digital, or when modernizing legacy approaches, can establish a strong foundation that gives your company the freedom, modularity, and flexibility to react to whatever market conditions throw at you. Let's look at an example.

Inbound FOSS and the Digital Transformation of Bees4Less

Kei, a salesperson at Bees4Less: The Pollination Station, uses many different tools for their job. Here's a Wardley Map[1] representing a slice of those tools:

1. https://learnwardleymapping.com



You can see that the usual suspects are all there in the lineup:

- Kei naturally uses their email and chat clients (desktop and mobile software) a lot, along with their calendar. No bee salesperson can do their job without these anymore, can they?
- Kei also uses the company's intranet for storing and retrieving white papers, product summaries, sales decks, and case studies.
- The intranet runs and relies on a purpose-built content management system (CMS).
- Kei tracks all of their pollinator sales leads in a customer relationship management (CRM) tool. It's a software-as-a-service (SaaS) subscription but has been highly customized for Bees4Less's sales workflow.
- Each piece of this software relies on its own server software and hardware, and many include their own database (DB) as well. (For the sake of simplicity on what's already a complex diagram, the DB hasn't been split into its software and hardware server components.)

Items that are more visible to Kei are closer to the top, and items become less visible to Kei as you go down to the bottom of the map. Things that are more custom or less evolved are to the left, while more "off-the-shelf" or commonplace things are to the right of the map (see also the sidebar on page 5).

What's That Weird Diagram?

"I have a map of the United States…actual size. It says, 'Scale: 1 mile = 1 mile.' I spent last summer folding it. I hardly ever unroll it. People ask me where I live, and I say, 'E6.'" —Steven Wright

Those funny little diagrams with the dots and lines are Wardley Maps. Invented by researcher Simon Wardley and released under a Creative Commons license, Wardley Maps are a tool for modeling value chains and are useful when discussing and formulating strategies. It's a picture representing relationships and a tool for framing discussions. Wardley Maps can help people better picture the entire landscape and identify possibilities that might otherwise remain hidden.

Wardley Maps are *tools*. Like all tools, they don't have agency and can be misunderstood or used incorrectly. To quote George Box, "All models are wrong, but some are useful." They don't create answers, only facilitate their discovery. That's how I'll use them in this book: to frame and facilitate discussions when its helpful for visualizing examples.

One of the advantages of Wardley Maps is you don't need to understand the mapping method to get value out of the map itself. All you need to do is look at the picture and talk about it. What can you see? Are there relationships? Could any of those dots be moving in a specific direction? Are any missing? How would what you see impact your business? These questions are just the start of the conversations that a Wardley Map can facilitate, even without studying the mapping method itself.

You can learn all about Wardley Maps at the aptly named site, *Learn Wardley Mapping*.[a]

a. https://learnwardleymapping.com

As a part of Bees4Less's digital transformation effort, it's reviewing its existing sales-related software systems, looking for elements that can be upgraded and for ways to make the entire process easier and more efficient for Kei and their customers alike. Even in this small slice, you can see a lot of moving parts to consider.

When speaking with Kei and their colleagues, the company learns that any changes that will require them to use different email or calendar clients will lead to not only needing more time to close sales (as the team learns how to use the new software) but also to expressing a lot of anger. The sales team have strong opinions about their software tools and have optimized their workflows around them, so any transformation effort should change these pieces last—if at all. While Kei is attached to their email and calendar clients, they have no strong feelings about chat. They mostly just wish everything would work together smoothly and that it all integrated with the CRM.

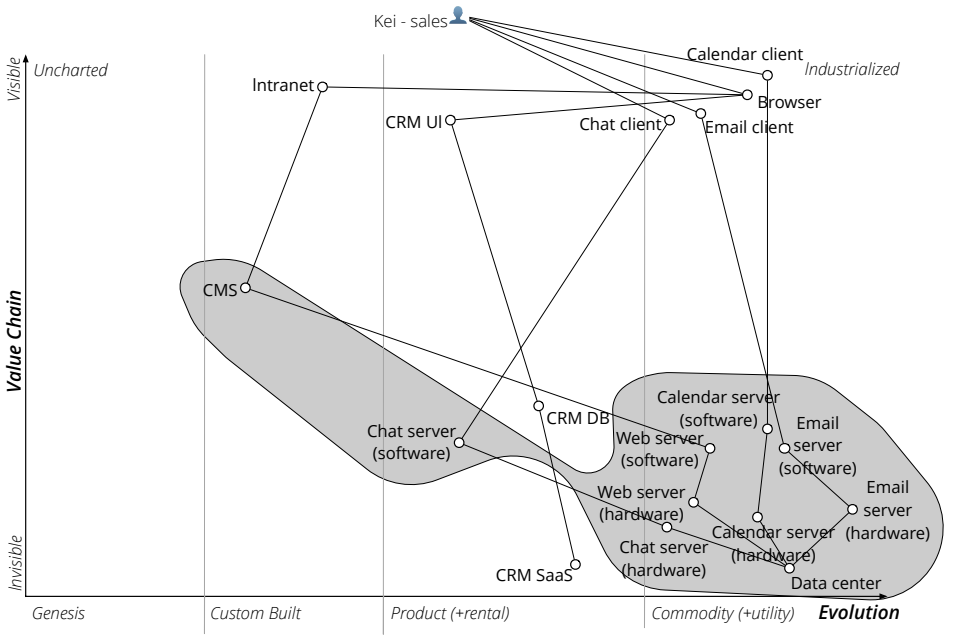
The various pieces of server software, aside from the SaaS CRM, are all hosted in a data center on server hardware. Each piece of software is maintained by the internal IT team, who has outsourced the care and feeding of the hardware to staff at the data center. Bees4Less pays annual license fees for the proprietary email, calendar, and chat server software along with its yearly service contract for the data center and for the SaaS CRM.

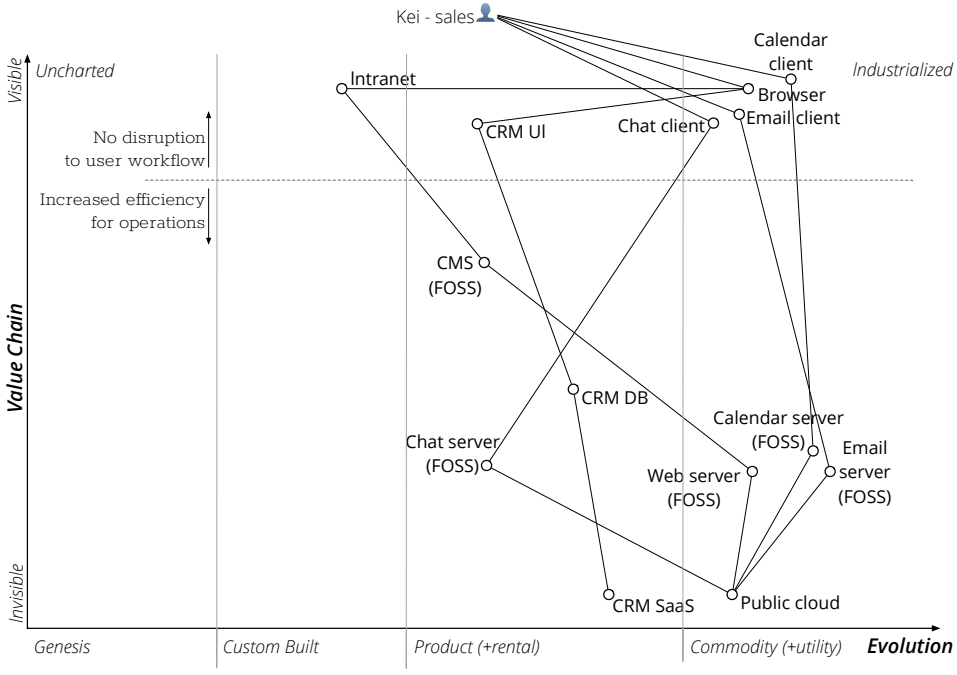
The intranet CMS—being purpose-built in-house—doesn't have license fees, but it comes with hidden but considerable maintenance costs. The people who developed the CMS moved on from the company years ago and no one else really knows how it works. Anything beyond a simple content update requires weeks of work and testing, so no one wants to touch it at all. This is a big pain point for just about everyone at Bees4Less, and they all want it fixed, as shown in the map on page 7.

After studying the overview of their infrastructure, Bees4Less decides to make some changes to support their digital transformation:

- They choose to get their servers out of the data center and into the cloud.
- They considered doing a "lift-n-shift," transitioning to cloud-based versions of their existing server software but mostly opted to migrate to new, modern server software to allow them to stay up-to-date with technological advancements rather than being held back by their clunky legacy tooling. This modernization will allow the company to remain technologically nimble for years to come.
- To increase their future options, Bees4Less also makes it a requirement that each modernized piece of server software must be open source. The servers themselves may be SaaS hosted and maintained by external vendors, but requiring the software to be open source ensures the company can move between vendors if needed, or even take over hosting the servers themselves.
- Another requirement Bees4Less sets for the modernized server software is that each server must use open standards and provide open application programming interfaces (APIs). The open standards will allow Kei and their colleagues to continue using the client software on which they already rely, while the open APIs will enable integration between all the pieces, improving workflow and visibility in the overall system.
- The APIs and integration also open the door to automating some of that workflow, providing even greater efficiencies and freeing up more of Kei's time to focus on the most important thing: their customers.

After these changes, the Bees4Less infrastructure map now looks like this:





This involves tradeoffs, of course. Bees4Less trades high-touch control over its software for subscription fees on commodity, cloud-based products, among

other things. Does this tradeoff make sense? For some companies, yes, it may, by bringing workflow improvements, increased productivity and customer satisfaction, and perhaps lower costs. For others it may not be the right move. For strategic or regulatory reasons, they may need to retain their data center and the software in it. The important part of this example is not the conclusion but the process Bees4Less went through to get there. Before making the decision, they looked at the big picture. This level of intentionality allowed them to see possibilities they may not have discovered otherwise.