Charting the course

An odyssey of operational transformation

Microsoft

Empowering organizations
for what's next



> The problem isn't change, per se, because **change is going to happen;** the problem, rather, is the inability to cope with change when it comes.

Kent Beck
Creator of agile software development methodology

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Setting sail

Modern enterprises have gone through tumultuous changes in the past few decades, adapting operations to new ways of doing business, new technologies, and new competitive strategies.

Consequently, the list of best practices on how to efficiently manage operations can be long and often contradictory: if your operations are distributed, consolidation offers synergies; if operations are consolidated, offshoring offers cost savings. We have witnessed entire industries transform back and forth, reorganizing again and again, as firms vie for position in the competitive landscape.

As a result of these competing forces, competitive business strategies tended to focus on product (or service) differentiation and low-cost leadership. In the latter half of the twentieth century, businesses took these strategies to the extreme—be it the exclusivity of luxury items or the rock-bottom prices of discount retailers. Companies became highly optimized to take advantage of these opportunities—in some cases implementing rigid solutions—as they sought to outdo one another.

But in the late 2000s, a confluence of events uprooted conventional business wisdom.

Markets crashed and uncertainty spread, requiring bailouts of companies and countries alike. Mature businesses, wary of uncertainty, slashed budgets, reduced staff, and solidified their positions, hoping to weather the storm. But the economic challenge also created opportunity: some firms thrived in this environment of change and uncertainty. For example, there were startups, with no legacy restrictions, that applied new technologies and techniques to reevaluate age-old business orthodoxies. These organizations reimagined business processes as they founded companies and built products that changed the very definition of "exceptional service and experience."

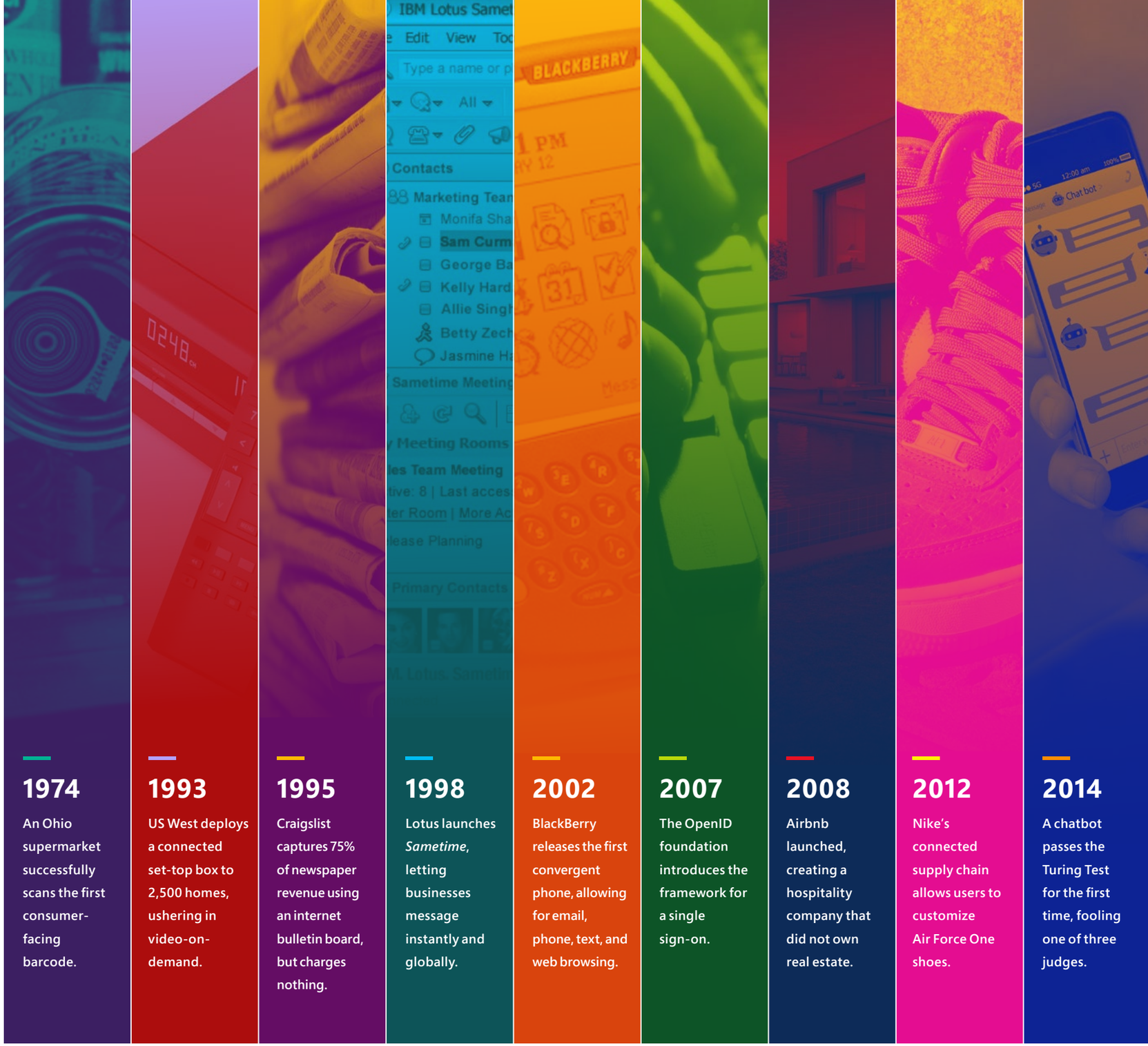
The positive reaction to the new level of customer experience was staggering: suddenly, the very existence of certain industries was called into question as far superior service was delivered in a completely different way. Many incumbents continued to cut expenditures, relying on their brand, reputation, and financial muscle to stay afloat. It turns out this was the wrong decision.

Business as usual was coming to an end.

Navigational tools

Leaps forward in technology continue to redefine the business environment. Beginning with the Industrial Revolution, each breakthrough has changed both the availability of goods and how customers interact with businesses.

Though these changes may have seemed superficial at the time, they have made a profound impact on the operations of enterprises worldwide. Organizations that were quick to evaluate—and adopt—these emergent technologies enjoyed a competitive advantage over those that did not.



1974

An Ohio supermarket successfully scans the first consumer-facing barcode.

1993

US West deploys a connected set-top box to 2,500 homes, ushering in video-on-demand.

1995

Craigslist captures 75% of newspaper revenue using an internet bulletin board, but charges nothing.

1998

Lotus launches *Sametime*, letting businesses message instantly and globally.

2002

BlackBerry releases the first convergent phone, allowing for email, phone, text, and web browsing.

2007

The OpenID foundation introduces the framework for a single sign-on.

2008

Airbnb launched, creating a hospitality company that did not own real estate.

2012

Nike's connected supply chain allows users to customize Air Force One shoes.

2014

A chatbot passes the Turing Test for the first time, fooling one of three judges.



Rough waters

Unable to compete in terms of scale or brand, these new entrants sought advantage through new business models and operational flexibility that created better experiences for the customer.

Many mature companies—structured to deliver goods and services in better, cheaper, and faster ways—were so focused on incremental innovations that they struggled to react to this new paradigm.

Customers did not want products or services, per se; they wanted what the products and services could provide. Take a bank loan, for example—the customer didn't want the loan; they wanted the house or the car and the experience they provided. From financial services to retail to transportation, companies that have been around for decades—even centuries—are being replaced by applications and platforms that delivered experiences faster, cheaper, and on-demand.

Many legacy companies reacted to these new developments with hubris, often with disastrous results: banks overlooked the promise of distributed databases, retailers balked at the concept of online marketplaces, and taxicab companies ignored app-based ridesharing. Customers, unconcerned about internal restrictions or technology challenges, shifted away en masse to alternatives that could deliver the results in seamless and intuitive ways, and in the manner that they desired. Improved customer experiences in one industry began to bleed into others—if a vacation on the other side of the planet could be safely and instantly booked with the touch of a button, why couldn't everything else?

> "Talking to customers—or transforming products—requires looking inside an organization and reconsidering what's being done from an operations perspective."
>
> **Julia White**
> Corporate VP, Microsoft

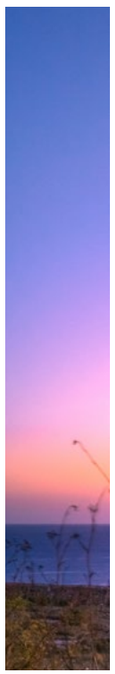
Changing course

For businesses looking to deliver on their brand promise and meet heightened customer expectations, their survival depends on rethinking existing operations in order to provide an exceptional customer experience.

Many incumbents have recognized this tectonic shift and have initiated varying changes as industries move away from rigid product solutions and further into the age of experience. But not all companies are at the same spot on the experience adoption curve, nor are all internal processes at the same stage of innovation.

Many large businesses have operational processes that span the entire maturity lifecycle: old processes that need to be replaced, current ones that drive business, and experimental ones that are exploring innovative ways of creating value. For organizations, this means taking stock of their digital ambitions and understanding their place in the digital landscape.





DATA POINT

IoT investments have outperformed expectations by an average of 14 percent.

Source: Aruba Networks, February 2017



Understanding coordinates

As a first step to better delivering on customer experience, it is important to understand how various internal operations are enabling (or constraining) the ability to deliver on that experience. Inefficiencies ranging from antiquated systems to unforeseen dependencies can create unplanned downtime, and often result in poor experiences—frequently in an embarrassingly public manner. For many companies, this requires disassembling some of the existing "black boxes" and data silos to better understand and precisely measure operations. Making better decisions requires collecting better data. In order to build more modern and secure applications and improve decision making, a company needs to adopt more intelligent assets, better measure and report on the status of operations, and securely store that data where it is readily accessible.

The benefits offered by connected assets and cloud architecture extend well beyond improved reporting and near real-time remote monitoring. Imagine increasing uptime by correcting problems before they occur, or predicting customer trends before they happen. The promise of intelligent assets—and the advanced analytics, reporting, and machine learning that they enable—is that enterprises can effectively understand their own operations and prepare to deliver products and services when and how a customer wants them.

Steering the ship

Once better data has been gathered, it is important for an enterprise to understand how that data is being used. Though data has often been called the new currency, it is the insights derived from the data that represents the true value.

Using secure-by-design, cloud-based modern applications together with emergent technologies like blockchain, machine learning, and artificial intelligence (AI) can make sense of the massive amounts of data that many enterprises have at their disposal. Previously untapped troves of data, ranging from news articles and videos to metadata and voice recordings, can now be mined and analyzed, making disparate connections to provide a deeper understanding of how processes can and should work.

Some industries are already employing nascent intelligent processes to improve operations: financial institutions are using them to become more adept at detecting fraud, advertisers are using them to evaluate behavioral metadata that facilitates targeted ads, and online marketplaces are using them to serve up additional purchase suggestions. These operational transformations are raising customer expectations across the board. Organizations that can create business applications and employ them effectively can realize additional cross-selling opportunities and cost savings, while increasing their customer engagement with suggested products and experiences.

"Artificial intelligence is poised to transform business in ways we've **not seen since the impact of computer technology."**

Paul Daugherty
CTO, Accenture



DATA POINT

ClearBank uses cloud-based API architecture to allow **instant access and clearing to member banks.**

Source: ClearBank, September 2017

Ports of call

No company is an island—even the largest or most vertically integrated businesses do not cover the entire value chain from end to end. Though relationships with suppliers and distributors can at times be contentious, they are fundamentally symbiotic.

When a business reaches a point where further automation has a diminished return, its next logical step is to look for opportunities to securely exchange data and insights with the other companies operating within the ecosystem.

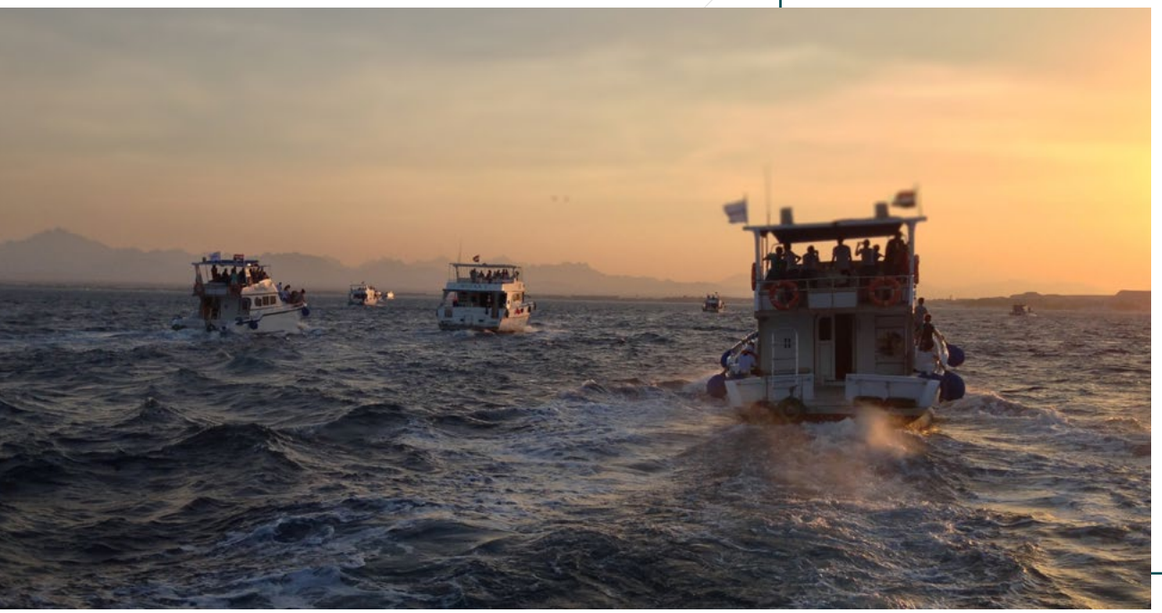
An open ecosystem is not unprecedented. Many industries connect and share data that benefits all involved. For example, some companies share supply-chain information to help them better anticipate demand or optimize inventory. Or in the case of pharmaceuticals, experimentation with open innovation platforms is allowing third parties to access a company's resources and infrastructure as they develop new services or drugs, which benefits the entire ecosystem. Enterprises that have traditionally grown their product and service lines through mergers and acquisitions may find that creating an open and intelligent value chain could generate the product innovation they are seeking at a much lower cost—delighting customers with cutting-edge and intuitive experiences.

Beyond the horizon

Operational transformation presents a challenge, but the benefits are undeniable: supporting new business models, new customer journeys, and exceptional customer experiences, and delivering the brand promise consistently across channels in a timely manner.

The true value that underpins digital transformation is the agility that it brings to previously rigid enterprises, allowing them to continuously deliver on their promise while navigating the uncertain waters of the business environment. Predicting the future is a tricky endeavor, but consider the following scenarios that offer a possible glimpse of what's to come.





Reading the stars

The near infinite computing power of the cloud, combined with more advanced artificial intelligence (AI), will provide more complete insights and accurately predict factors further into the future.

Imagine a system that can forecast demand, predict product bundles, and reliably deliver the next best offer, or can collect and deduce more complete information about customers. As the ability to gather and analyze data increases, the ability to forecast customer actions also increases. This moves the needle beyond innovative products and services and into the realm of predictive offerings. In turn, it creates increased revenue opportunities and potentially enables enterprises to analyze the operational efficiency of events that have yet to happen.

DATA POINT

Stanford researchers use AI and machine learning to **predict consumption and wealth via satellite imagery.**

Source: *Science*, August 2016

Full speed ahead

The world is only moving faster. Communication has become instant, payments are quickly approaching that threshold, and time to delivery can now be measured in minutes. How long until nearly everything is immediate?

These shortened lifecycles have become the hallmark of the modern economy—customers are seeking on-demand experiences, around the clock, from anywhere in the world. If your business cannot deliver, customers simply will look elsewhere. But, for the agile business, this shortened window offers an intriguing opportunity: imagine delivering a customized experience that is as inexpensive as mass production and can be achieved on demand.

DATA POINT

App-based rideshare programs are less expensive and **more than five minutes faster than traditional taxis.**

Source: *Forbes*, September 2014



Changing winds

If a primary driver of value is customer experience, how will businesses change as an increasing number of experiences can be delivered digitally?

We have already witnessed digital experiences gain a foothold in manufacturing, retail, and banking—and many other industries are beginning to explore their potential. The line between the physical and digital worlds is blurring. What happens when physical becomes just another channel in an omnichannel experience? Future enterprises need to be prepared to deliver experiences not only across channels but also across realities.





Navigational assistance

We understand that the operational transformation journey is both exciting and challenging because we are undergoing it ourselves. We also know that there are a multitude of options available and you may not know where to begin. At Microsoft, we have partnered with some great companies from around the globe as they embarked on their own digital transformation journey. We have learned, alongside our customers, as the roles of people, processes, and technology continue to evolve in a modern business.

We're often asked, "What should we do next?" Our answer is that it depends on where you are in your digital journey and where you want to go. We are here to work with you to determine tangible outcomes and gain clarity. In many cases, organizations already have part of what they need to start, so it's a matter of putting the pieces in motion.

Our approach is to start with a basic maturity assessment of the core topics introduced here, and then work with you to develop a clear roadmap and quick wins to engender confidence. Our collaboration with you can help you improve how you serve customers through data and technology platforms as you continue your digital transformation journey.

What's next?

No matter where you are on your digital transformation journey, Microsoft Enterprise Services can help.



Empower employees

Empower a high-quality, committed digital workforce to work as a team anywhere, on any device, with seamless data access—helping you innovate, meet compliance requirements, and deliver exceptional customer experiences.

Engage customers

Reimagine the customer experience for a digital world and deliver more value through insights and relevant offers by engaging customers in natural, highly personal, and innovative ways throughout the customer journey—driving increased relevance, loyalty, and profitability.

Optimize operations

Gain breakthrough insights into risk and operational models with advanced analytics solutions and act on real-time intelligence to optimize risk management and meet regulatory requirements.

Transform products

Drive agility with open, connected systems and automated digital processes to support new product development and optimize distribution channel strategies, while meeting the security, privacy, and transparency expectations of customers, regulators, and shareholders.

Credits

Many subject-matter experts contributed to the conceptualization and articulation of the story contained in this document.

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