Introduction

In a business climate driven by powerful digital forces, disruption, and rapid-fire innovation, every consumer products company is now a technology company. Where before technology was traditionally confined largely to operations, its digital expression now informs all aspects of business, from ideation through execution.

We witness daily how technology is changing product design, upending venerable business models, and rewiring competition. The ascendance of exponential technologies to a place of strategic primacy has occurred within a turbulent context. Globalization is driving borderless growth across established and emerging markets. Barriers to entry are being lowered, if not demolished. The threat of new entrants into the IT arena, externally and within the organization, abound. Within many organizations, non-IT-driven investments are being made independently by other functional areas; this “shadow IT” decentralizes decision making and challenges the concept of a core, central IT and IT investment strategy. In this climate, new entrants focused on niches, specific functions, and overlooked domains can make meaningful impact on a global stage traditionally dominated by the world’s biggest players.

For consumer products companies specifically, market dynamics fueled by heavy M&A activity, evolved and digitally engaged consumers, a changing workforce, and rapid technological innovation culminate to force change in the very core of the business. Every consumer products company is focused on growth and faced with a clear market imperative to evolve at the pace of technology and of consumer desires.

To help make sense of it all, we present Deloitte’s Tech Trends for consumer products report, our annual in-depth examination of five trends that are likely to disrupt consumer products businesses in the next 18–24 months.

From blockchain and augmented reality to the Internet of Things and the socially responsible applications of technology, these trends embody the macro forces fueling innovation: digital, analytics, cloud, and the changing role of IT within the enterprise. We balance our coverage of each trend by also considering the implications of cyber risk in the areas of security, privacy, regulatory
mandates, and compliance. We intentionally examine cyber risk not as a separate topic but as an enterprise discipline embedded in the planning, design, and realization of each individual trend.

The underlying theme of this year’s consumer products report is the emergence of zero-based architecture, which is inspired by a paradigm shift that we deem critical for the CIO to successfully harness emerging technologies to deliver and measure value while keeping pace with evolving business demand.

_**Tech Trends** features perspectives from client executives, industry and academic luminaries, and our global network of Deloitte professionals, all exploring major trends that are helping organizations innovate in the digital era. We also examine the roadmaps and investment priorities of start-ups, venture capitalists, and leading technology vendors. In this edition, we focus on the implications, challenges, and opportunities presented by these broader trends, tailored specifically for the consumer products industry.

As you read the following chapters, we challenge you to think beyond the “what” of digital innovation—the shiny objects, applications, and capabilities—to the “so what”—how can you harness emerging trends, innovation, and disruption to create real business value. Viewing the horizon through this paradigm, recognize that the precision to which we’ve all become accustomed may no longer be a given; in the age of digital innovation, we are exploring largely uncharted territory. Moreover, any digital transformation journey should also address the more practical realities of today—reimagining core systems, industrializing analytics capabilities, building autonomic platforms—which are by no means trivial.

Over the next 18–24 months, the only constant may be the specter of constant change. Amid this turmoil, organizations that can confidently and purposefully harness technology trends will find great opportunities to refocus, to revitalize, or even to inspire. Think beyond incremental adoption patterns. Look not only for ways to do familiar things differently, but also to do fundamentally different things. Launch new processes, products, and services, and seek out new ways to compete.

No matter what the scope, the time for you to act is now. Build tomorrow, starting today.
## Consumer products thought leaders

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Zero-based architecture (ZBA) emerged as a necessary adaptation to the six key market forces (figure 1) that are colliding to shape how consumer products companies operate and interact with the market and consumers. Let us examine these forces:

1. **The growth puzzle**: With a simultaneous concentration of key players and increased margin scrutiny, consumer products companies are in a landgrab for consumer attention and market share. While there is substantial focus on strengthening heritage brands, even in these cases, innovation is a driving force. Shelf staples such as Trixx cereal are being reformulated to reflect consumer concerns such as the removal of artificial colors and dyes. New product introductions and customization opportunities target the “segment of one” and satiate consumers’ desire for individualization and customization.

2. **Margin pressure and the “3G effect”**: In the highly competitive consumer products landscape, emphasis on the bottom line is not new. However, the ferocity of margin focus driven by aggressive venture capital firms such as 3G Capital is taking margin pressure to a whole new level. Zero-based budgeting (ZBB), which requires departments to justify spending and budgets each period independent of historic allocations, has spread like wildfire in this environment, with the number of companies mentioning ZBB in quarterly earnings reports growing by a compound annual growth rate of 86 percent between 2013 and 2015.

3. **M&A activity**: The consumer products industry is experiencing an unprecedented level of M&A activity, significantly outpacing other industries. The competitive landscape is now dominated by

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Figure 1. Six key market forces shaping the consumer products industry
mega-conglomerates and mega-mergers that consolidate the world’s leading brands under a single umbrella. Nowhere is this more evident than in food and beverage, where the recent Kraft-Heinz merger spawned the world’s fifth-largest food and beverage company. Consolidation is occurring not only within the consumer products sector but within the US grocery retail market as well. According to the USDA Economic Research Service, M&A activity in the grocery retail market is at the highest level seen since 2007. This consolidation of total players (consumer products companies) and key customers (retailers) represents a concentration of power and influence. A smaller number of larger, more powerful organizations wield significant influence on market dynamics.

4. **Food safety (food and beverage):** As consumers’ focus on health and wellness grows, food safety concerns follow suit. A large number of high-profile and high-impact safety scares and recalls (Blue Bell, Chipotle) have brought food safety into the national spotlight. The FDA’s Food Safety Modernization ACT (FSMA), passed in 2011, increases scrutiny of food manufacturing, transport, and sales. As the FSMA regulations are finalized, companies are expected to make significant investments in risk-based preventative measures.

5. **The evolving consumer:** Consumer products companies face a multitude of challenges related to changes in consumer spending and preferences. Brand loyalty is at an all-time low, though growing among younger consumers. According to Deloitte’s 2014 American Pantry Study, the “must have” brand rating remains steady at 31 percent across all categories and brands, yet the opportunity for private label products proves substantial, with 71 percent of consumers indicating that they do not feel as though they are sacrificing by opting for lower-priced products. While consumers are willing to spend more on a product that they feel is truly superior from a company that they trust, price sensitivity, on the whole is on the rise. Eighty-three percent of consumers look closely at every spending category to see where they can save.

6. **The evolving workforce:** Societal changes are wreaking havoc on internal organizational dynamics. Millennials now comprise the largest percentage of the active workforce. These employees bring different values and priorities to bear, challenging old-school notions of success and career development. As the first “digitally native” generation, Millennials have higher expectations of internal systems and processes, and less patience for system inefficiencies. Gigwalk and other crowd-sourcing applications provide ready access to low-cost, unskilled, and geographically distributed labor. Periodic market and compliance checks can be outsourced to temporary workers, reducing full-time labor needs. However, this raises the challenges of determining what tasks can be outsourced as opposed to what knowledge and activities need to be maintained internally.

These powerful forces are applying immense pressure on today’s consumer products companies, and there is a very clear message: Adapt rapidly and effectively, or begin your journey toward obsolescence. For the CIO to thrive in this chameleon-like business environment, there is a significant thrust to focus on value as well as build capabilities that enable IT malleability and speed to market.
Zero-based architecture: A new IT paradigm for consumer products companies

Based on our understanding of consumer products companies, we recognize that our finance colleagues provide a reference model for IT to emulate: ZBB. Ultimately, ZBB is all about evaluating all budget items based on merit, not history. Nothing is a given, and the value delivered must be proved annually. IT can adopt these very same principles and reorient the core capabilities toward ZBA:

- The old paradigm of “built to last” and a corresponding focus on total cost of ownership will be replaced with a heavier emphasis on the ability to adapt to the ever-changing business environment. The new paradigm is “built to prove,” and the focus will be on total cost to own and evolve.

- The focus will be renewed on technology integration to enable end-to-end processes that operate seamlessly on top of complex systems landscapes (on premise, cloud, varying platforms)—creating an “orchestrated services-driven architecture.”

- User experience becomes table stakes for all processes to insulate the end user from evolving application architecture.

- The age of data renaissance begins—a reinvigorated focus on data integrity to enable seamless data integration, data aggregation for analytics and insights, and data lineage and traceability for effective data governance across an evolving architecture.

Ultimately, ZBA provides a framework and new mind-set: Investments must prove value and return quickly and repeatedly to justify continuous funding, and systems must be designed in a more modular fashion so that components can be added or removed based on performance and shifts within the dynamic industry. In light of the technology trends that we discuss in this publication, we opine that ZBA can help consumer products CIOs make sense of it all.

1. Gartner, Embracing and creating value from shadow IT, May 9, 2014.