#### <u>NERI 5-1</u>

Request:

Subject: Book 7—Johnston and Connolly

Please provide details on the relationship between the proposed Gas Business Enablement investments and gas expansion investments. What fraction of GBE investments are designed to serve expansion efforts? Which functions are primarily or significantly related to gas business expansion?

#### Response:

There is no direct correlation between the proposed Gas Business Enablement investments and "gas expansion investments." The Gas Business Enablement Program is designed to support the delivery of natural gas service to customers. The Program will create a modern service-delivery platform to enable improvements in gas safety, compliance, and customer satisfaction and will drive operational effectiveness. The benefit of integrated systems, reduced reliance on paper-based operations, and use of mobile devices as a primary tool for front-line employees will enhance the effectiveness and efficiency of the Company's operations *for customers*.

Among the benefits of Gas Business Enablement for customers will be easier and more transparent interactions with the Company. For example, expanded and enhanced self-service capabilities will allow customers to initiate new requests for service, manage existing work requests, book their own appointments, and receive confirmations and updates via their preferred communication channel. Customers will also be able to monitor the status of work requests, have improved communications with the Company, benefit from shorter wait times for appointments and be able to manage appointment scheduling. Although not the primary focus of Gas Business Enablement, all of these improvements are likely to enable customer subscription in natural gas service and therefore assist in expanding access to gas service by future customers.

#### <u>NERI 5-2</u>

#### Request:

Subject: Book 7—Johnston and Connolly

Please explain why customer expectations regarding natural gas utility service should be compared to frequent, often daily, business interactions like using a taxi or shopping for groceries.

#### Response:

Customer expectations regarding natural gas utility service are comparable to frequent business interactions like using a taxi or shopping for groceries. Natural gas utility service is a necessity in the lives of customers who rely on natural gas service for their homes and businesses. When customers take the time to interact with the Company in relation to that service, they want that interaction to be short, simple, and productive.

More specifically, today's customers want easy access to information pertinent to their utility service with the "self-help" ability to initiate, schedule, and manage requests and interact with National Grid via their preferred communication channel (*e.g.* text, email, or phone). Technology advances and mobile platforms in other customer-focused businesses have established a minimum threshold for customer expectations and the manner in which customers want to interact with service providers.

National Grid has emphasized the importance of delivering benefits to the customer through the Gas Business Enablement Program. National Grid will be delivering new and enhanced capabilities to customers through mobile and web channels. These enhanced capabilities are consistent with experiences customers are now accustomed to in other markets and industries and expect as a customer of National Grid. The Company has partnered with leading industry experts to develop the scope of the Gas Business Enablement solution to deliver customer capabilities based on feedback and customer preferences. Please refer to the attached studies, surveys, and publications that have been leveraged as a framework for the delivery of customer interactions and capabilities.

- 1. Attachment NERI 5-2-1: Accenture's New Energy Consumer research annual publication. <u>https://www.accenture.com/us-en/insight-utilities-new-energy-consumer-2017</u>.
- 2. Attachment NERI 5-2-2: Harvard Business Review January February 2017, Kick-Ass Customer Service, Authored by Matthew Dixon, Lara Ponomareff, Scott Turner and Rick DeLisi. <u>https://hbr.org/2017/01/kick-ass-customer-service</u>

- 3. Attachment NERI 5-2-3: Forrester's Top Trends for Customer Service in 2016, Authored By Kate Leggett. <u>https://go.forrester.com/blogs/16-01-06-forresters top trends</u> for customer service in 2016/
- Attachment NERI 5-2-4: Harvard Business Review, July August 2010, Stop Trying to Delight Your Customers, Authored by Matthew Dixon, Karen Freeman and Nicholas Toman. <u>https://hbr.org/2010/07/stop-trying-to-delight-your-customers</u>
- 5. Attachment NERI 5-2-5: 2017 Field Service USA Report, How Connecting Satisfaction with Next Generation Field Service Technologies.
- 6. Attachment NERI 5-2-6: Gas Business Enablement Customer Engagement Current State Assessment, Authored by Accenture and National Grid.

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## accentureconsulting

# NEW PATHS TO OPERATING AGILITY

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## VOLATILE MARKETS, CHANGING REGULATORY FRAMEWORKS AND GREATER CONSUMER ENGAGEMENT ARE SHAPING AN INCREASINGLY COMPLEX ENERGY ECOSYSTEM.

The terrain is challenging. But it's also full of opportunities for growth through new markets, new ventures and new value creation. These shifts are nothing new— Accenture has said all this before. But what has changed now is that the utilities industry is reaching a point of no return.

Long-standing business models are being actively disrupted. Solar, storage, microgrids and other distributed energy resources (DERs) are combining with the rapidly falling costs of disruptive technology, the proliferation of automation and artificial intelligence, and the increased adoption of energyefficiency products and services. At the same time, consumer expectations are now liquid, flowing from one experience to the next and challenging energy providers to keep pace with standards set in other industries. In this era of the digitalization of everything, and of hyper-relevant personalization, a relentless obsession with customers is no longer an option. It's a must.

In the face of these game-changing shifts, successful energy providers are pivoting to a new decentralized,

decarbonized and digital world. They are developing future-forward strategies and building new capabilities that enable them to seize opportunities and scale quickly. In the previous report, New Energy Consumer: Thriving in the Energy Ecosystem, Accenture identified four consumer trends: instant everything, hyper relevant, meaningful experiences and collective consumption. Through our research program, we have continued to track these trends under the ongoing influence of disruptive digital technologies and the market realities of the new energy ecosystem. To offer a forward-looking view of the implications for customer operating models, the trends focus on the latest customer attitudes and behaviors. Our "May the bots be with you" report captures, for example, the way robotic process automation and artificial intelligence are facilitating new consumer insights. customer engagement personalization and are taking "instant everything" to a new level (see Figure 1).

Over the past eight years, Accenture has collected energy consumer insights from questionnaire-led interviews with more than 80.000 consumers around the world. Our goal: to help energy providers understand emerging needs and preferences, identify new challenges and opportunities, and bring focus to the competencies essential for success in the changing energy marketplace.

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### FIGURE 1. CHANGING CONSUMER BEHAVIORS AND PREFERENCES ARE IMPACTING ENERGY PROVIDERS AND DRIVING THEIR DIGITAL OPERATING MODELS FORWARD.



#### **TOTALLY DIGITAL? MAYBE NOT**

When it comes to digital, there is a wide spectrum of possible engagements, with digital active users at one end and the unengaged status quo at the other. To date, most energy providers have led with a technology approach to digital, leading to disappointed customers and providers. It's time to rethink that approach.



#### **THIS TIME IT GETS PERSONAL**

The way to keep consumers engaged, loyal and satisfied is through relationships that are meaningful and individualized – moving from touchpoints to trustpoints. Successful energy providers are offering personalized experiences and relevant products and services, where and when customers want them.



#### MAY THE BOTS BE WITH YOU

Providers are no longer on their own in the quest to keep pace with consumers' "instant everything" expectations. Artificial intelligence is quickly changing the customer service paradigm. Now is the time to make investments and use bots to delight customers—and deliver against key goals.



#### **PARTNER OR PERISH**

Energy providers are on the edge of a major shift from commodity provider to orchestrator of an innovative, fluid ecosystem. The winners will form diverse partnerships, collaborations and alliances to spur innovation, drive product and service development, accelerate culture change and capture new opportunities.



#### **SWITCH THE SWITCHERS**

Transient consumers are nothing new. But their dynamics are accelerating due to market shifts, disruptive technologies and regulatory changes. More than ever, providers need deeper insights so they can understand, act on—and profit from—individual consumer preferences and behaviors. Switchers matter.

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The spectrum of customer plays for energy providers also continues to be a relevant consideration (see Figure 2). Accenture believes that, regardless of which play or combination of plays an energy provider chooses, it must keep a close eye on changing customer expectations, and strive to become a lean digital customer experience leader.

## FIGURE 2. CUSTOMER PLAYS AND THE NEW DIGITAL OPERATING MODEL.



Source: Accenture analysis.

The first step for energy providers: Decide where and how to differentiate in a disruptive energy marketplace by choosing a strategic direction and customer play(s). Then ask: What does it take to operationalize the strategy—and how can we get there? These questions are at the heart of our latest report. We show that the answers lie in building a customer-centric operating model that is agile, adaptive, digital and flexible. Energy providers must start by strengthening the core: Creating a culture that empowers people to move forward with pace and adapt to drive ongoing change and innovation. Without this strong core, digital initiatives will inevitably be short-lived.

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### NOW IS THE TIME TO TAKE ACTION:

- Implement a new, more integrated approach to transformation strategy, planning and execution—one that can address new digital business models and new technologies, as well as market demands that further increase organizational complexity.
- Embrace continuous innovation—shift from decades of long planning cycles, rigid processes and certainty to a willingness to move quickly, "fail fast, win big" and iterate with agility.
- Create an agile culture aligned to digital strategy—promoting a peoplefirst approach, speed and experimentation, and introducing new styles of digital leadership to innovate and navigate an organization through infinite disruption.
- Invest in the workforce of the future, including new talent strategies and technologies to support the digitally-enabled workforce.
- Implement the New IT, characterized by agility and scalability through open, cloud-based and multi-speed technology architecture and agile ways of working.
- Leverage new partnership approaches to support operations and acquire new capabilities fast.
- Build new ways of measuring progress and tracking the return on digital investments, with forward-looking metrics for customer affinity and digital transformation key performance indicators (KPIs) to steer the transition.

Our latest New Energy Consumer findings suggest a stronger consumer push toward advanced digital capabilities, next-generation services, and intelligent and integrated energy offers. Our 2017 research program, The New Energy Consumer: New Paths to Operating Agility, explores the latest consumer trends driving digital transformation.

To thrive in the rapidly evolving energy ecosystem, providers must move boldly and decisively: build a digital operating model, drive fundamental culture change and advance next-generation customer capabilities.

NEW ENERGY CONSUMER NEW PATHS TO OPERATING AGILITY

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## PEOPLE AT THE WHEEL: DIGITAL TRANSFORMATION DOES NOT DRIVE ITSELF

Digital transformation is about more than technology. It requires cultural change shifting workers, contractors and partners to focus on customer-centricity, speed and and a new human-machine relationship. At the same time, it demands a new leadership approach for navigating an organization through infinite disruption and continuous innovation and reinvention.

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Many energy providers have been working hard to embrace digital. Yet Accenture's 2017 New Energy Consumer research shows that a third of consumers still struggle with their digital experiences. This finding suggests providers are not yet achieving desired returns on their digital investments. In some cases, digital might even be causing a disjointed customer experience.

What's at the root of digital disappointment? Accenture believes much of it stems from a technologyfirst approach to digital transformation. When digitizing core customer-facing touchpoints (such as move in/move out processes) providers have often focused on automation. Working diligently to replicate traditional business processes on new digital interaction platforms, they've placed little to no emphasis on shaping customer experience and simplifying processes to minimize customer effort and dissatisfiers. When adopting robotic process automation in customer operations, for example, some providers seem to spend more time selecting and purchasing technology than determining which processes would benefit from digital solutions, and why.

Energy providers' long-time commitment to continuous process development

and compliance with industry and regulatory standards is another root cause. Operational excellence and Lean Six Sigma approaches have become the industry norm. While important, these are often insufficient to keep a provider competitive and relevant amid growing asymmetric competition in the dynamic energy marketplace. Accenture's New Energy Consumer research suggests that delivering a personalized, seamless customer experience may be an equally important use of resources (see Figure 3). Energy consumers in deregulated markets indicate they would even switch providers to receive that kind of experience.

#### **FIGURE 3. PERSONALIZATION GAP.**

WHAT WOULD MAKE YOU WILLING TO BUY ADDITIONAL PRODUCTS AND SERVICES FROM YOUR ENERGY PROVIDER? BASED ON YOUR EXPERIENCE OVER THE PAST 12 MONTHS, HOW WOULD YOU RATE YOUR ENERGY PROVIDER'S PERFORMANCE ON PROVIDING YOU EACH OF THE FOLLOWING?



Base: All respondents.

Source: The New Energy Consumer research program, 2017 consumer survey.



NEW ENERGY CONSUMER NEW PATHS TO OPERATING AGILITY

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## PUTTING PEOPLE AT THE CORE

To succeed in the digital age, energy providers need to become "experience architects." Through human-centered service design providers can solve problems more effectively both today and in the future. Energy providers can apply a design-led approach across the board-from strategy to delivery and from marketing, sales, customer service and other core business functions to enterprise functions such as HR, IT and finance. Leading energy providers are implementing design-led approaches that place people-customers, workers and partners-at the core. For example, a

leading European utility is reinventing its customer operations with a peoplefirst approach, identifying new ways to engage customers and enhance market leadership. Their goal: to increase customer satisfaction, agility, operational efficiency and optimize cost to serve by delivering a seamless omnichannel customer journey—all while engaging workers as full actors at each step.

A people-first approach to digital transformation requires an energy provider to apply the principles of design thinking every day (see

sidebar: principles of design thinking). It's about delivering more relevant solutions to energy consumers. And improving the manner and speed with which energy providers can reinvent processes to meet changing needs. It encourages rapid experimentation, prototyping and constant reinvention. And it connects important elements of design-elegance, sensitivity, ontinuous and rapid iteration, and an appreciation for how people engage with the world-within the context of a business. That context enables leaders to quickly understand the feasibility and implications of their decisions.

#### **PRINCIPLES OF DESIGN THINKING**

Design thinking refers to the adoption of human-centered design methods to solve problems, frame opportunities and achieve innovation.<sup>1</sup>



Start with empathy and work to understand people through direct observation and research.



CREATIVE ANI PLAYFUL

Reframe the problem and view it from different perspectives, considering many solutions.



Refine the problem definition and

potential solutions based on feedback and testing. Learn from early failures.



PROTOTYPE-DRIVEN

Rely on tangible representations of potential solutions to get early user feedback.



Involve all disciplines throughout the process—and employ co-creation methods as appropriate during the process.

Design-led approaches must be rooted in an industry context. Electricity and gas have traditionally been low-engagement products—necessities invisible to many consumers. So, when building meaningful energy consumer relationships beyond the energy bill, energy providers may find inspiration in cross-industry examples. But deep industry expertise will remain essential in addressing unique energy consumer needs, such as preventing "bill shock" through proactive alerts, offering proactive property move support and personalized recommendations for energy savings plans. Energy providers can tap into the power of diversity by blending industry specialists with the new skills and perspectives of designers, data scientists, digital technologists and scrum masters. Working together, these teams can create and implement sustainable innovations—whether incremental or breakthrough—that delight consumers. In short, energy providers must pivot from simply viable products to lovable products and services for the new energy consumer.

<sup>1</sup> "Fjord Trends 2017", FJORD/Accenture Digital, 2017, https://trends.fjordnet.com/trends.

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## MINIMUM LOVABLE PRODUCTS (AND SERVICES)

Digital leaders are obsessed with minimum viable products (MVPs). That is, using technology to rapidly build and deliver something with just enough features to satisfy early adopters. At their core, MVPs represent a technology-driven approach. They ask "what is it possible to build?" and "how fast can we build it?"

Accenture believes MVPs are not enough to serve the new energy consumers. Providers must instead aim for minimum lovable products (MLPs). An MLP brings everything into the mix—business, technology and, most importantly, human value.<sup>2</sup>

What makes a product or service lovable? It must be something that creates human value—and delight—by combining functional value (addressing unmet or latent needs) and emotional value (tapping deeper emotions and providing an engaging experience). In other words, a lovable product brings together utility, engagement and simplicity for the energy consumer.

For more information, see Fjord Trends 2017.

<sup>2</sup> "Fjord Trends 2017", FJORD/Accenture Digital, 2017, https://trends.fjordnet.com/trends.



ENERGY PROVIDERS MUST PIVOT FROM SIMPLY MINIMUM VIABLE TO LOVABLE PRODUCTS AND SERVICES FOR THE NEW ENERGY CONSUMER



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## DIGITIZING A MINDSET

TO ADOPT A PEOPLE-FIRST APPROACH TO DIGITAL TRANSFORMATION, ENERGY PROVIDERS NEED TO ESTABLISH A DIGITAL MINDSET THAT INCLUDES:

#### "WE ARE AGILE."

People embrace new ways of planning. Defining a vision remains important, but there's no expectation of a detailed, set-in-stone, three-year digitalization roadmap.

#### **"WE ARE EMPOWERED."**

People are inspired to come up with new ideas for digital initiatives based on the strategic vision, and have the accountability and responsibility to execute them.

#### **"WE ARE INSIGHT DRIVEN."**

Knowing the customer and making informed decisions is part of the DNA of the business. Deep analytics capabilities are embedded within the organization. These capabilities are vital to capturing insights from behavioral and user preference data throughout the entire user journey, and then applying them to drive decision-making at all levels.

#### "WE ARE A 90-DAY BUSINESS."

People aim to deliver tangible results in 90-day cycles through:



Not trying to imagine every small detail of the service, but focusing on the minimum lovable product.



Setting clear targets for each sprint. If a sprint fails, that's good. What did we learn? How does it advance the idea? Just as important, the team is empowered to kill any idea that doesn't meet targets.

To build a digital mindset, energy providers are creating "design studio" conditions. That's where business and IT partner to develop potential concepts, and then work in multidisciplinary scrum teams to refine and test ideas with light governance. The result: nimble, cost-effective collaboration based on designthinking principles. Leading energy providers are also breaking down traditional hierarchical structures. They're empowering people to devise innovative solutions and create the conditions to implement them at speed and scale. For example, in just 20 weeks, an Australian energy provider launched a customer portal to empower engaging digital self-service. The key to its success was a collaborative, engaged team committed to consistently meeting and exceeding sprint goals with a digital mindset.

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## SPOTLIGHT ON KINGFISHER: A 90-DAY CHALLENGE

Operating more than 1,200 retail stores in Asia and Europe, Kingfisher has succeeded in nurturing a digital mindset and practicing a people-first approach. Every six months, 160 people involved in digital transformation projects gather for a two-day workshop. Working with C-suite representatives—and based on the company's strategic vision—the team builds the roadmap for the coming threemonth sprints. Participants are invited to present ideas they want to realize in line with the larger strategy. By the end of the workshop, people commit to their three-month workplans, with accountability and responsibility for the results. From there, the working teams have the autonomy to build their own project plans. Using this approach, Kingfisher launched its first MLP on the market—an integrated home improvement platform to simplify the customer journey.<sup>3</sup>

## DIGITAL MINDSET IN ACTION

In successfully navigating digital disruption, one of the biggest hurdles for energy providers will be transforming their cultures to become truly customer-centric. That means putting customers at the heart of all operations. In other industries, successful organizations have adopted design thinking to build customercentric cultures and increase their capacity for innovation. Indeed, the Design Management Institute and Motiv Strategies found that designled companies have outperformed companies in the S&P 500 by 219 percent over the past 10 years.<sup>4</sup>

Leading energy providers are making design thinking integral to all aspects of their organizations and leadership approaches. They are embedding the principles of living services to create a new culture and operating model (see sidebar: becoming a "living business"). Providers can use design thinking to identify value leakage and process inefficiencies. Leveraging robotic process automation cannot only drive efficiency but also enhance employee engagement by taking away repetitive tasks and enabling workers to focus on higher-value activities. Many energy leaders are employing design thinking beyond customer experience and product and rate design. They are using design principles in areas like marketing campaigns, operational planning and talent management.

Adopting a design-led approachfrom strategy to execution and across all functions-fosters a culture of constant experimentation, improvement and continuous learning. It puts customers and workers at the core. And it requires energy providers to create a workplace where people willingly embrace change. Workers should enthusiastically engage in the development process to identify trailblazing ideas and determine which have potential and which will fail. In a design-led culture, people must be empowered. Teams need to view the new as positive and rewarding rather than something to be feared. The result? A business that's constantly ready to pivot in response to the shifting sands.

<sup>3</sup> Driving Our Digital Capability, Kingfisher, www.kingfisher.com.

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## BECOMING A "LIVING BUSINESS"

Businesses are not people. But can they benefit from a focus on some very human characteristics? Accenture says yes. And we believe becoming a Living Business can bring out the very best in the people and culture that create a business.<sup>5</sup>

#### THESE CHARACTERISTICS ARE WHAT BRINGS A BUSINESS TO "LIFE":

take new directions.



This expresses an organization's purpose through its brand. Workers are both affiliated with and empowered by this personality.

This is the way an organization reacts to change. It is how it gathers people across structures and hierarchies to make effective decisions and



INSTINCT



#### **RELATIONSHIPS**



This describes how the company likes to work. It's how it builds a bridge to customers and puts the needs of those customers at the heart of what the business does. It's also how it builds new collaborations and partnerships internally and externally.

This is all about valuing people's input across the organization and focusing on ongoing workforce skill development. It's also about embracing diversity in the truest sense to confirm the business can differentiate in a world of liquid customer expectations.

<sup>s</sup> "Culture and Digital Transformation: How to Build a "Living Business"," Fjord/Accenture Interactive, March 3, 2017, www.fjordnet.com.

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## WHO SHOULD "OWN" DIGITAL TRANSFORMATION?

Without doubt, a people-led approach to digital transformation starts at the top. It needs clear, explicit and official support from the CEO. From there, the rest of the C-suite should step up and assume responsibility for executing the digital strategy and transformation. Digital transformation requires a holistic approach. That means starting with digital strategy and defining the approach for digitizing core business processes and customer interactions (Digital Customer), transforming the corporate functions for efficiency and productivity through technology (Digital Enterprise) and digitizing the workforce, enabled by a new culture and new ways of working (Digital Employee). The CCO, COO, CTO, CIO, CPO (Chief People Officer), and CDO all have important roles in setting and implementing the digital strategy. For example:

- The Chief Customer Officer takes responsibility for developing digital customer experiences and interaction channels.
- The Chief Operating Officer is responsible for developing digital processes and the digital value chain.
- The Chief Technology Officer manages the digital operational technology and innovation capabilities to develop operational technologies further.
- The Chief Information Officer confirms that IT services utilize the latest digital technologies and that IT brings value to the business with digital technologies.
- The Chief People Officer is responsible for digital talent and culture priorities.
- The Chief Digital Officer develops new digital business models and verifies that the company becomes a truly digital business.

Specific accountabilities need to be clear, as responsibilities depend on each energy provider and its digital maturity and current capabilities. CEOs can either extend the role of an in-place C-suite executive to spearhead the digital transformation. Or they can establish a new role, Chief Digital Officer (CDO), whose primary focus is leading the organization's digital priorities. The path an organization takes very much depends on the size of the energy provider, its digital maturity, its level of ambition and the personal capabilities of its existing leadership team. No matter what, the leader of digital transformation should report directly to the CEO, as that person will play an important role in this fundamental, enterprise-wide transformation.



NEW ENERGY CONSUMER NEW PATHS TO OPERATING AGILITY

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## LEADING THE DIGITAL AGE

Guiding an organization through digital transformation requires new leadership styles. New business leaders exhibit some or all the following characteristics: <sup>6</sup>

## **Adventurer**

This type of leader exploits digital despite uncertainty. They start outside, using customercentricity as a compass, and define a digital vision of what's possible that inspires others to move forward and take calculated risks.

## Ambassador

These leaders employ an ambassador's art of persuasion, anchored in a loyalty to the enterprise's ultimate purpose, to bring others along on the journey.

## **Clarifier**

As industry disruption increases, it becomes ever more critical that digital leaders clarify what matters most. That includes both digital threats and opportunities.

### Attractor

This entails radiating a compelling digital business purpose that enables others to contribute to something bigger than themselves. Attractors create, or reset, an optimal work environment and use it to attract and unleash the power of top talent.

### **Educator**

As an educator, a digital leader encourages the new mindsets and skills needed to lead in this persistently uncertain, high-velocity and innovation-driven era.

### Cartographer

This trait is as much about visualizing new paths of opportunity as it is about showing the business where and how to outmaneuver the competition and master the natural contours of the digital terrain.

To lead through digital transformation, forward-thinking energy providers are building balanced, cohesive teams that offer these behavioral traits. These organizations understand that leadership's first imperative is nurturing appropriate behaviors. That can, in turn, enable the autonomy necessary to build a new culture and mindset.

<sup>6</sup> "Remake Yourself With Six Digital Leadership Personas," Gartner, February 9, 2016, www.gartner.com.



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## DIGITAL HUBS MAKE IT HAPPEN

Many energy providers have started implementing digital initiatives in different parts of the organization—often with limited coordination and reuse of leading practices. These kinds of initiatives tend to get stuck in pilot phase, making it impossible to have a direct impact on the business or its profitability. Accenture has observed that a scattered approach to transformation often minimizes return on digital investments. To facilitate a people-led approach and accelerate cultural transformation, Accenture recommends setting up a digital hub outside of existing operations. This independent team becomes the focal point for leading the digital transformation and managing change. It helps drive and scale digital across local business units by blending business, technical and digital skills into creative, fast and agile solutions that create new customer experiences, new digital operations and new business models.

#### **DIGITAL COCKPIT**

This part of the hub monitors, controls and steers digital transformation initiatives and value cases across business units. The digital cockpit identifies and contributes thought leadership. It also drives leading practices, methods and tooling to spread innovation throughout the organization. It verifies that the business uses budget and scarce digital skills in alignment with the business strategy. And, when pursuing a digitalization roadmap, the digital cockpit distinguishes between business and growth initiatives and the enabling capabilities required to realize business outcomes. Strategy and road-mapping, governance and control, digital value tracking and digital portfolio management: these are the core competencies of the digital cockpit.

#### **DIGITAL STUDIO**

This part of the hub applies designthinking principles to conduct fast, cheap and iterative experiments. In a digital studio, failure is treated as an opportunity to learn and improve. Core competences include market and customer research, ideation, customer journey development, service design, rapid prototyping and incubation to bring an experience to life and test it with the market. Typical roles within the studio include product owner, scrum master, researcher, business analyst, user experience designer, data scientist, architect, builder, tester, together with an API team and local subject-matter experts.

#### **PARTNER ECOSYSTEM**

The digital hub works to position the business within a broader ecosystem. It engages a network of partners that deliver services and technology to develop, build, test and host solutions. A strong ecosystem helps confirm flexibility—enabling an energy provider to acquire specialized capabilities quickly.

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## DIGITAL HUBS: GUIDING PRINCIPLES



#### **START FRESH**

Aim for a flat structure staffed with new, digitally-savvy talent. While the hub should be independent from operations—creating space for people to work in a completely new way—teams should collaborate closely. Between 60 and 70 percent of the people in the hub should be new hires, working with opinion leaders and business representatives from local organizations.<sup>7</sup>



#### **FOSTER INSPIRATION**

The physical location and space for the digital hub is crucial to driving cultural change, promoting innovation and new behaviors. It is fundamental to running the hub like a startup. Aim to emulate a creative studio environment and establish a sense of belonging and pride for the team. The hub should be attractive, not only to new talent but also to existing customers and workers. Make it a place people want to visit—bringing together elements of business and leisure ("bleisure") so workers go home fully revitalized. In most cases, that means locating the studio in city centers or other vibrant parts of a city that attract large numbers of creative people.



#### DON'T SKIMP ON SIZE

Hundreds of potential ideas—and countless hours of research—will precede any successful new product or service. To establish a pipeline of top-line ideas, concepts and prototypes, a critical mass of people in the hub will be needed. That increases the likelihood of creating the products and services that consumers will love—and that generate sustainable business profit.

<sup>7</sup> Accenture analysis based on leading practices <sup>8</sup> Ibid.



NEW ENERGY CONSUMER NEW PATHS TO OPERATING AGILITY



#### **BUILD FOR AGILITY**

Everything about the hub should be primed for agile ways of thinking, designing and delivering. Embrace the need to fail fast and cheap, and iterate based on those experiences. Empower the team with the latest technology and prototyping tools to enable those experiments. And confirm 30 percent "spare" capacity to handle any spikes in demand—whether due to a heavy backlog or extra innovation sprints.<sup>8</sup>

### 5 MAKE IT A "BRIDGE"

A digital hub helps reduce siloes and build bridges—fostering close collaboration among business, IT and ecosystem partners and enabling multiple partners and stakeholders to work together. A digital hub can collaborate with partners in an as-a-service model to acquire specialized capabilities quickly and facilitate the scaled acceleration of digital lighthouse initiatives across different markets.



#### **PUT PROCEDURES ASIDE**

Yes, the hub needs to operate with clear agreements on funding principles and budget ownership. But to rotate to the new, it's important to move away from typical approval processes and allow shortcuts. In other words, make it easy to buy from startups and test their products—without following usual corporate procurement policies.

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### ENGIE'S DIGITAL TRANSFORMATION: FROM TOP TO BOTTOM

ENGIE (previously GDF Suez) is a global energy player with the ambition to be the leader of energy transition by concentrating its activities in low-carbon energy production, including natural gas and renewable energy, infrastructure and global solutions for its customers. Facing significant market transformation, ENGIE sought to review its retail operations and transform the digital experience for its business and residential customers. Its transformation includes reimagining the delivery of traditional commodity services, such as selling gas and electricity. It also includes designing new services to disrupt the market, challenge competitors and new entrants and, ultimately, position ENGIE to move into new markets and regions. Among the possibilities: servicing the new era of electric and self-driving vehicles, connecting the coming wave of home solutions in ways that delight customers, and helping customers in their energy transition projects. "As part of our ambitious threeyear transformation plan to become a forerunner of the future energy world, we are making a big investment to digitize our company, redefine the customer experience and set new rules of engagement in the industry," said Isabelle Kocher, Chief Executive Officer of ENGIE.

<sup>9</sup> "ENGIE Selects Fjord to Transform Its Retail Business by Reimagining the Digital Customer Experience and Designing Disruptive New Services," Accenture press release, May 4, 2016, https://newsroom.accenture.com.

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## PUTTING DIGITAL TO WORK: RETHINK THE FOUNDATION

Traditional waterfall-based approaches to developing people, processes and technology have been well-suited to the conservative, cautious utility culture. In today's energy ecosystem, those approaches are a liability—hindering a provider's ability to deliver constant agility, immediate scalability, short-cycle flexibility and speed at the pace of change.

To evolve and thrive in the new energy ecosystem, energy providers need to rethink the people, process and technology blocks that form their foundation. That includes investing in the workforce of the future; enabling IT agility and scalability through open, cloud-based and multi-speed technology architecture; and leveraging partners to support non-core operations and acquire new capabilities—fast.

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## TALENT TRANSFORMED: SHAPE THE DIGITAL WORKFORCE

Digital is here to stay. Energy providers must begin to transition their workforce—incorporating new technologies and understanding new talent strategies as part of the shift to the new digital operating model.

## LET'S GET **DIGITAL**

Our latest research found only 27 percent of energy consumers are active digital users. And a third of energy consumers are still struggling with their experiences on their energy provider's digital channels. In other words, many customer interactions with energy providers still take place through traditional channels. Consequently, many energy providers still have "old-school" customer operationsalong with a commoditized approach to workforce management that is reactive and focused on economies of scale. Even so, 88 percent of energy consumers say they are ready to use a digital agent (a computer program that simulates human conversation using

artificial intelligence via phone or chat to resolve simple queries) if their energy provider offered one. Getting there will require a tectonic shift in how providers approach workforce management and incorporate new technology.

Over the next five years, most utilities' customer operations activity will be undertaken by a combination of robots and humans working in close collaboration.<sup>11</sup> Cloud-based bots will perform most transactional tasks, while human experts focus on new ways of delivering value to energy consumers—shifting from simple, short interactions to value-added advisory services. Under this new digital customer operations model, Accenture expects up to half of calls to be deflected to digital assistants and up to 80 percent of gueries to be resolved by virtual assistants. That will support up to 25 percent optimization of average handling time and up to 60 percent staffing optimization benefits.<sup>12</sup> These significant operational shifts will drive new talent needs-demanding more business and process experts alongside tech-savvy, outcomeoriented management. Accenture believes this move from a commoditybased workforce to one that leverages automation to achieve operational efficiencies will free up resources for value-added activities.

<sup>11</sup> "Technology Vision 2017," Accenture, 2017, www.accenture.com.
<sup>12</sup> Accenture analysis based on leading practices.



NEW ENERGY CONSUMER NEW PATHS TO OPERATING AGILITY What will emerge is a new organizational pyramid with up to 40 percent fewer full-time employees (FTEs) due to a blended workforce combined with new sourcing approaches. Accenture is already observing leading energy providers implement robotic process automation at scale in their back offices. These providers are realizing headcount savings of 25 to 40 percent while reaching meter-to-cash process efficiencies of one FTE per 90,000 contracts.<sup>13</sup>

In the 2017 Accenture Technology Vision survey, more than three-quarters of IT and business executives agreed their organizations are under extreme competitive pressure to extend innovation into their workforces and corporate structures. Moreover, 85 percent indicate they plan to increase their organization's use of independent freelance workers over the next year. And 73 percent report that corporate bureaucracies are stifling productivity and innovation.<sup>14</sup>

Blurring lines between employees and contractors are fundamentally changing the ways people will deliver their jobs in the future. An increasing number of tasks will be crowdsourced. Driven by a surge in on-demand labor platforms and online work The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment NERI 5-2-1 Page 21 of 42

management solutions, legacy models and hierarchies are being dissolved and replaced with talent marketplaces. Call it the liquid workforce—with talent marketplaces augmenting and accelerating the inherent strengths of the digital workforce pyramid (see Figure 4 for an example in an energy provider's customer operations). Meanwhile, leading energy providers are embracing talent marketplaces to accelerate their digital operating model transformations.

## FIGURE 4. TRANSFORMING TO A DIGITAL WORKFORCE IN AN ENERGY PROVIDER'S CUSTOMER OPERATIONS.



Source: Accenture analysis.

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<sup>13</sup> Accenture analysis based on leading practices.

<sup>14</sup> "Technology Vision 2017," Accenture, 2017, www.accenture.com.

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## JUMPSTART DIGITAL

Energy providers will need to fundamentally rethink human capital and career management processes. Most will face some major shifts—from positionbased to role-based career paths and from static to active career management. These changes necessitate frequent career discussions for all employees, along with a change in employer brand promise from lifelong employment to lifelong learning. Leading energy providers are already taking steps to shape a digital workforce of the future through new human resource practices that make regular employee career discussions a requirement, not a "nice to have." These industry leaders are rethinking HR policies and procedures as well as enabling the liquid workforce—through new global talent sourcing and role design, career management and incentive mechanisms.

To nurture a people-centric culture, energy providers need to hire new digital talent and create teams that blend those new hires with internal experts. They also need to reskill people for new roles, leveraging digital technologies to increase time to proficiency. Their challenge: to compete with higher-margin companies and industries for the same digital talent.

To overcome this obstacle, energy providers need to rethink their employer brand promise, reinvent their employee experience and tap into new sources of talent, such as contractors. It is crucial to build symmetry between the employee experience and the customer experience, as employees become ambassadors of change and of the brand. Only an engaged, motivated workforce can deliver outstanding customer experiences. To attract and retain that kind of workforce, energy providers need to take a designthinking approach to create tailored, people-centric employee journeys, incorporating both cultural and physical experiences.

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## TOOLS OF THE (DIGITAL) TRADE

To develop a digital workforce and attract new talent, energy providers need to rethink collaboration and work management tools and upgrade them where needed. New digital collaboration platforms and the online management of work will help build the workforce of the future. These approaches will offer employees greater flexibility as to where, when and how they perform their work. They will also break down organizational silos, supporting customer-centricity goals.

A digital workforce needs access to collaboration tools, wearables and social media channels to facilitate cross-functional teamwork. An example: collaboration between the front and back offices on billing web care through co-browsing, with more than one agent simultaneously navigating the energy provider's web portal with a customer. Collaborative platforms should also facilitate conferencing between remote locations via chat, voice or video. Immersive reality opens new opportunities for training and customer support (for example, remote product installation support), which in turn will appeal to and attract millennials. Tools for the online management of work, such as realtime dashboards, should enable employees to make insight-driven decisions quickly.

These capabilities can help avoid situations where, for instance, a field technician is late to an appointment. If customer care has no visibility of the issue, the representative will be caught by surprise when the customer calls upset about the no-show technician. Embedding operational analytics and real-time performance monitoring tools into day-to-day customer operations will help energy providers continuously improve both customer experiences and operational effectiveness.

## FINDING PIECES OF THE PUZZLE

While it is obvious that the digital workforce of the future will make extensive use of technology to perform old and new tasks, many enterprises have yet to balance the use of digital technology with a range of emerging workforce complexities. To plan for the future, energy providers need to be ready to understand and act quickly on the combined answers to these questions:

- Who delivers the job (examples: self-serve, crowd serve, bots, artificially intelligent assistants, people)? For instance, artificial intelligence can augment existing jobs and free up people to do more judgment-based, creative tasks.
- How will people deliver the job (examples: full time, part time, partner, network, crowd sourced, private, public)? What tools will they use (examples: analytics, mobile, bots, speech recognition, next best action)?

Building the digital workforce of the future is a daunting task. Energy providers can start today by embracing digital technologies to reshape how work gets done, establishing a new employee value proposition and challenging traditional people management methods.



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## DIGITAL DECONSTRUCTED: GETAGILE AT SCALE

Delivering a customer-centric operating model requires energy providers to rethink their approach to IT. The challenge: to implement decoupled multi-speed IT architecture and cloud-based solutions and adopt designled approaches to deployment and integration. As its name suggests, multi-speed IT architecture makes it possible to run at more than one pace: accelerating design and deployment of new customer-oriented

concepts, products and services while maintaining a reliable cadence with core operations.

## MOVING TO Multi-speed

Delivering customer-oriented concepts requires fast, iterative development of prototypes and projects. At the same time, core systems that support meter-to-cash operations must remain stable and highly available. Multispeed architecture decouples critical core systems from supporting systems, business applications and channels. It also enables easy collaboration with partners, and supports a highly integrated open ecosystem model that facilitates new business models.

Beyond its ability to deliver content, products and services faster across multiple customer channels, a multispeed approach supports a people-centric approach to transformation. For example, employee engagement rises because experimentation is encouraged, helping identify optimal user experiences for customers and employees. In addition, multi-speed IT supports insight-driven operations. It can accelerate the collection of data both internally and throughout a provider's ecosystem—making it possible to create a central data platform and develop new analytics cabilities.



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#### **FIGURE 5. EVOLUTION OF ARCHITECTURAL ARCHETYPES.**



Source: Accenture analysis.

A key enabler of multi-speed operations is the use of cloud-based solutions and API-enabled architecture. These investments enable an energy provider to benefit from greater flexibility and scalability. They also offer greater access to broad-based IoT capabilities. To take one example, connected home devices for demand response can easily communicate through APIs without disrupting core systems. Further, given the rise of IoT devices and integration, energy providers can easily give partners access to business functions and data, or even expand access to a community of developers through public APIs.

Across multiple industries, highly performing digital organizations are evolving away from traditional landscapes supported by a few monolithic systems. To support their digital transformations, they are decoupling back-end and front-end systems using web services. Accenture believes that multifaceted, API-enabled architecture is critical to leveraging the value of a broader ecosystem beyond traditional organizational and IT boundaries—and to establishing a customer-centric operating model (see Figure 5).

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Multi-speed IT architecture is characterized by:

#### • APIs and micro-services, making it easy to plug and play desired functionalities across customer touchpoints and connect with ecosystems.

API exposure enables easy collaboration with external parties and supports a highly integrated, open ecosystem that facilitates new business models. In addition, it allows for a broader scope of analytics and the atomization of interfaces so third parties can easily interact with systems without significant IT changes. An API exposure module also enables energy providers to prototype apps and insights quickly and inexpensively. Those looking to develop value through connected home services and distributed energy resources need to recognize the current vendor ecosystem is becoming increasingly unbundled, complex and disruptive. Energy providers aiming to serve as a market enabler will need extensive API exposure to facilitate transactions, transfer value and coordinate customer offers.

#### Full decoupling of core back-end systems from business applications and touchpoints.

This decoupling enables a lean system of record that focuses on core capabilities, reliability and control. It also verifies critical back-end systems are shielded from front-end and external applications-for instance, by using APIs to expose billing information in front-end channels.

#### • The ability to enable omnichannel customer interactions, facilitating a seamless customer experience across all channels.

This requires decoupling back-end services from the app layer through the API manager-while verifying that access is controlled and a multitude of different applications across different channels can be created on the same data. Meanwhile, content to be displayed across different channels is centralized in a content management system, which can be tailored to specific channels. The same touchpoint features leverage the same APIs to complete the same tasks on different channels. Apps are thus built for touchpoints and can encompass multiple channels. Responsive design for web and hybrid apps helps provide a consistent, cross-platform experience on a single code base. Energy providers can build a user interface in modern web patterns using enhanced responsive design techniques, fluid components and progressive enhancements. They can easily integrate emerging user interfaces such as voice and motion in customer journeys.

#### • Cloud adoption and software/infrastructure-as-a-service models to gain agility and reduce hardware costs.

Cloud technologies enable innovation at pace, with ondemand compute and storage capabilities that can greatly increase speed to market and enable new digital capabilities. Cloud and SaaS/IaaS also drive a shift from capital to operating expense and reduce hardware costs.

**STICK TO THE STANDARD** 

from scratch.

Use standard (best-in-class) software

components over customizing or developing

Enable all front-end solutions to be used "any

place," "any device," "any time," by re-using

#### FIGURE 6. IMPLEMENTING A DECOUPLED ARCHITECTURE.



#### **RECOGNIZE MULTIPLE SPEEDS**

Facilitate multispeed IT (velocity) through differentiation in the way solutions are delivered, maintained and supported.

#### **DECOUPLE YOUR CAPABILITIES**

IT components should be loosely coupled. Aim to deliver the same functionality by a single IT component and avoid duplication of your capabilities.

#### **BE SCALABLE**

IT components should scale in a flexible, dynamic way independent from each other.



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#### **SINGLE SOURCE OF THE TRUTH**

Data should have a "single source of the truth" and can be exposed to other applications via services or APIs. Data duplication should be avoided at all costs.

Source: Accenture analysis.









**BUILD FOR MULTIPLE CHANNELS** 

#### ADOPT CLOUD COMPUTING

Where available, use SaaS solutions. Use IaaS solutions if applications require customization.



#### **ENSURE BUSINESS CONTINUITY**

Consider a central hosting solution if applications are classified as having a major risk to business continuity.

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## SPOTLIGHT ON NEXT-GENERATION DIGITAL PLATFORMS

In Europe, new entrants and incumbents are seeking next-generation digital platforms that accelerate customer engagement, value creation and facilitate robust sales and marketing capabilities. The ability to offer differentiated customer service and sales support with speed and agility is critical for sustainable growth. As a result, an increasing number of retailers are turning to an integrated Salesforce service, sales and marketing cloud solution as a scalable platform.

For example, a leading energy provider is stepping up its innovation activities, focusing its strategy on the implementation of digital capabilities through the development of new products and services, energy efficiency and e-mobility. This company selected Salesforce as the platform to digitize its service workforce and equip them with mobile selling capabilities, while also addressing the lack of visibility across contractors fulfilling non-commodity services, such as maintenance of home energy appliances. The rapid implementation included:

- Optimizing and automating process and subprocess performance.
- A cloud-based platform consistent with the latest industry trends.
- Delivering a customer-focused approach, including providing a personalized, relevant and engaging experience.

An end-to-end, customer oriented, 100 percent mobile digital solution that combines multiple capabilities and eliminates manual paperwork.

The adoption of leading platforms helps energy providers to advance digital sales operations, facilitates new customer service business model based on digital experiences and simplifies core business processes.

## RUNNING AT MULTI-SPEED

Multi-speed, API- and cloud-enabled architectures give energy providers the blueprint for change. Yet only agile delivery methods for IT will empower a truly people-centric approach (see Figure 6). Agile delivery not only helps break down silos between business and IT but also introduces a user-led approach to application development. To deliver agility at scale, energy providers must change their traditional IT culture and approach, using design thinking to lead application development. Agile delivery approaches (also known as DevOps) are focused on driving lean, creative, iterative and automated delivery processes. The goal: to quickly produce high-quality features for the customer, thereby reducing cycle time and making feedback cycles more efficient. By transforming to agile and DevOps enterprise-wide, a major Dutch telco shortened its time to market from six months to just four weeks.

The secret to agile is that accountability is split evenly between business and IT. It bids farewell to the days of throwing business issues and requirements "over the fence" to IT. It demands ongoing cross-functional engagement and collaboration, with business and IT partnering throughout design and delivery sprints, focusing on rapid innovation and bringing a customercentric mindset into the application development process. To develop scale and agility in the new energy ecosystem, energy providers are using centers of excellence and design labs as a platform for living innovation. For example, a large utility set out to rewire its whole business for living innovation. It developed design labs in various operating jurisdictions, with agile development supported in nearshore centers. The goal is to create scalable capabilities for design and agile development for digital solutions in the energy provider's core markets.

Developing the appropriate technological and information architecture and adopting agile ways of working with close collaboration between business and IT are key to energy providers' capacity to bring forward new digital products and services at speed and at scale.

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## FIND FRIENDS: PARTNER OR PERISH

Across industries, as more companies join the platform revolution, the way leaders choose to build their portfolio of digital partners is more important than ever. To provide increasingly innovative services and better outcomes for both their business and their customers, enterprises are integrating mission-critical activities with various digital platforms. As a result, core functions—from marketing and sales to customer service—now reach far beyond the walls of a single organization. These functions don't just include a complex network of digital partners, they heavily rely on them—pointing to the need for utilities to embrace a more holistic partnering strategy. The goal: to balance tactical decision making with investments in the digital ecosystems that will enable long-term growth.

ENGIE is one of the leading energy providers that have announced partnerships with global leaders to boost digital transformations. ENGIE's ecosystem is diverse and innovative:<sup>15</sup>



To accelerate a move to an insight-driven culture, ENGIE uses C3 IoT's platform, which is designed to manage data from smart objects and can deal with high-volume and high-performance requirements.



To increase time to market for digital channels, ENGIE has partnered with Kony, a global leader in the field of mobile apps for smartphones and tablets.



To secure ENGIE's move to a new IT ecosystem, it has engaged Thales to oversee its information system 24/7 for a period of five years. Through its global partnership with Thales, ENGIE can better anticipate the evolution of cyber threats, providing the energy provider with an optimally secure environment, particularly in industrial field assets.



To enable a design-led approach, ENGIE engaged Fjord, Accenture's design and innovation agency, to co-create digital services for business and residential markets. This collaboration spans reimagining the delivery of traditional commodity services as well as designing new services to disrupt the market.

Another example is a UK energy provider that was focused on growing sales of profitable non-commodity services, such as energy efficiency to business customers. This energy provider partnered with FirstFuel to leverage its analytics platform. Together they redesigned the non-commodity sales processes to drive more productive sales-lead generation and conversion outcomes that target high potential customers, and create personalized recommendations and savings estimates. Through more targeted, personalized customer interactions, the energy provider is reducing its sales cycle and increasing conversion rates while creating better customer experiences. <sup>15</sup> "ENGIE creates its Digital Factory and announces two global partnerships with C3 IoT and Kony,"

ENGLE press release, June 23, 2017, www.engle.com; "Thales to Ensure the Security of ENGLE's Digital Transformation Plan" ENGLE press release June 23, 2017, www.engle.com.



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## AS-A-SERVICE: ON THE RISE

More than a quarter (27 percent) of executives surveyed for Accenture Technology Vision 2017 report that digital ecosystems are already transforming the way their organizations deliver value.<sup>16</sup> Energy providers must decide which ecosystem to join and what role to play. Tomorrow's competitive advantage will not be determined by one company alone, but by the strength of the ecosystems chosen and a company's plans to help those ecosystems grow.

As-a-service (aaS) models—including software-as-a-service (SaaS), platform-as-a-service (PaaS) and infrastructure-as-a-service (IaaS) are gaining momentum with energy providers thanks to the ease of their plug-in, scalable and consumptionbased business services. To take an example, Portugal's leading integrated energy player, GALP, has entered into an outcome-based as-a-service collaboration with Accenture to deliver an end-to-end digital transformation of its customer operations and IT systems.<sup>17</sup> Over the next seven years, Accenture's commitment is to reduce cost to serve and cost to acquire for the GALP Gas & Power Retail business to best-in-class levels while assuring an outstanding customer experience. Amazon is also tapping into the asa-service partnering trend through Amazon Connect—a self-service, cloud-based contact center service that makes it easy for any business to deliver better customer service at lower cost.18

"Technology Vision 2017," Accenture, 2017, www.accenture.com. Accenture e GALP Energia, Accenture, www.accenture.com/pt-pt/galp-energia. Amazon Connect, Amazon, https://aws.amazon.com/connect.

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### PUTTING SKIN IN THE GAME

As the energy ecosystem takes shape and disrupts the traditional model for utilities, several large players are entering emerging segments through strategic investments, ventures and acquisitions. Energy providers in North America and Europe have invested more than \$2.9 billion in 130 individual distributed energy companies since 2010. And \$1 billion was invested in 2016 alone. Though most investments have resulted in minority equity stakes, 37 distributed energy companies have been acquired by energy providers. North American utilities have focused on distributed solar, while European utilities have invested more in combined heat and power.<sup>19</sup> Accenture is observing a global trend toward greater innovation investments, the development of startup hubs and direct investment.

Eneco is following a similar approach with its Eneco investment fund, allocating more than €100 million for energy and sustainability-related ideas and startups.<sup>20</sup> ENGIE launched in 2014 a Corporate Venture Capital investment fund, ENGIE New Ventures, with a €115 million budget, using it to acquire stakes in startups in the development phase. To date, ENGIE New Ventures has made 14 investments in startups.

ENGIE launched recently ENGIE Fab, a global platform dedicated to stimulating technological, commercial and managerial innovation in its five priority domains. In March 2017, ENGIE Fab made its first investment in EV-Box, a leader in charging solutions for electric vehicles.<sup>21</sup>

Although many energy providers are investing in companies and technologies that directly or indirectly enable customers to save, modify, generate and store their own energy in new ways, most are yet to invent radically new business models. Companies such as Tesla, REstore and Sonnen are now starting to write new rules of engagement. Tesla is expanding its energy storage research into products for the home that upend traditional utility and building approaches (see Spotlight on Tesla).<sup>22</sup>

REstore offers "Virtual Power Plants" to grid operators and balanceresponsible parties, with higher reliability, faster delivery and cheaper cost than traditional combined-cycle gas turbine power plants, aggregated from industrial flexible power.<sup>23</sup> Sonnen has created an aggregationtype energy community with centralized coordination of distributed energy resources (solar and storage).<sup>24</sup>

New partnering approaches—whether through as-a-service models, partnerships and innovative alliances or joint ventures—are key enablers of flexibility and speed to market in the new energy ecosystem. To succeed at digital transformation, energy providers must apply a proactive and multifaceted strategic partnering approach.

<sup>19</sup> "Utility Investments in Distributed Energy," GTM Research, March 2017, www.greentechmedia.com.

<sup>20</sup> "New business unit of Eneco Group accelerates energy transition through innovation," Eneco Group press release, July 8, 2015, https://news.enecogroup.com.

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<sup>&</sup>lt;sup>21</sup> ENGIE New Ventures, ENGIE, Innovation.engie.com.

<sup>&</sup>lt;sup>22</sup> Energy, Tesla, www.tesla.com/energy.

<sup>&</sup>lt;sup>23</sup> Restore, www.restore.eu/en/homepage.

<sup>&</sup>lt;sup>24</sup> Sonnen, www.sonnen-batterie.com.

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### SPOTLIGHT ON TESLA

The Tesla-SolarCity merger serves as a strong indication of where connected energy—the future of the new energy ecosystem—is headed. The merger essentially creates a vertically integrated energy, technology and automotive company, unlocking a variety of interconnected energy value pools and new customer offers under one leading clean-energy brand.

In addition to offering customers integrated, disruptive products, the company employs a progressive business model. Rather than manufacturing solar cells, it acquires them from different suppliers to hedge silicon supply risk. In addition, the firm is focused on innovative leasing structures, which it can now extend to additional products and services, such as the Powerwall 2 battery. Through these lease agreements, customers are charged a monthly fee priced well below their current monthly utility rates. This method of price undercutting has allowed the companies to achieve a high market penetration rate. And, because consumers are not required to cover upfront installation costs, it's easy to switch over.

Another primary competitive strength of this business model lies in the length of the contract. Customers who sign the lease agreement are locked into 20-year purchase agreements that create high-quality recurring customer payments, while reducing the volatility of top-line performance year over year. Coupled with a Tesla EV and Powerwall and connected home IoT services, Tesla is not only appealing to the needs and preferences of the new energy consumer, it's also on the verge of offering a seamlessly integrated solution for demand response, aggregation and distributed energy interconnectivity through one platform.

While many pilots and programs have sought to test the value of such systems, Tesla is pushing the boundaries of what a single provider can offer in the new energy ecosystem.<sup>25</sup>

<sup>25</sup> Tesla and SolarCity, Tesla, November 1, 2016, www.tesla.com.



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## TRACKING TRANSFORMATION: MEASURE ONLY WHAT MATTERS

Energy providers require a new set of performance metrics, digital indicators and people measures to effectively evaluate their investments in customer-centric capabilities and the digital operating model.

Embracing a people-first approach to digital transformation is a game-changer for energy providers—and for the metrics they use to measure and manage performance. Adopting design thinking and nurturing a customer-centric culture. And implementing key enablers, such as agile IT solutions and digital hubs. These are game changers for energy providers and for the metrics they use to measure and manage performance. In rotating to the new, providers need to reenvision their scorecards and update their metrics, measuring what matters in the journey toward a digital customer operating model.

Successful energy providers are establishing a new digital baseline, gathering competitive cross-industry benchmarks and conducting ongoing assessments of digital experiences to set a foundation for systematic improvement.

#### ACROSS INDUSTRIES, ACCENTURE IS OBSERVING A SIGNIFICANT SHIFT IN TWO KEY CATEGORIES OF METRICS ESSENTIAL TO MEASURING THE TRANSITION TO LEAN DIGITAL CUSTOMER LEADER:



A move from measuring satisfaction and engagement to consumer affinity measures that assess a brand all the way down to individual moments of engagement.



A move from measuring program success to include digital traction measures as well as agility, culture and consumer measures.

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## FROM EXPERIENCE TO AFFINITY

For many energy providers, traditional customer satisfaction (CSAT) scoring has been, and remains, the core customer experience metric. Some energy providers, especially those in liberalized markets, are moving towards using more sophisticated customer experience measures. Among them: net promoter score (NPS), customer effort score and customer experience indices. While these measures have proved useful in the past, digitally enabled interactions, products and services have created complexities that require a holistic and end-toend approach to measuring customer experience.

To become a customer-experience-driven organization, and drive customer retention and loyalty, energy providers need to adopt forward-looking customer experience KPIs in their scorecards. In the era of liquid expectations, consumers are benchmarking their experience with energy providers against those with other service providers like their retail bank or Uber car service. Energy providers are competing against customer experience leaders across all service industries. It's no longer enough to create something that people like—energy providers need to craft experiences that people love.

To understand consumer experience—from brand to customer journeys to individual moments of interaction—Accenture developed a formula for measuring it: The Love Index. This index offers a fresh, forward-looking approach to measuring affinity to physical and digital brand experiences. It can also be correlated to business objectives.

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### THE LOVE INDEX: A FRESH APPROACH TO DIGITAL AFFINITY



What makes people love a product or brand? What sustains that love? These are the questions Accenture Interactive and Fjord set out to answer when embarking on The Love Index study—a survey-based research tool to give clients new visibility into why consumers love (or don't love) digital experiences.

The Love Index introduces an unprecedented, multidimensional approach that allows companies to measure how their customers feel about digital and physical experiences. The Love Index not only measures people's engagement with services, it also identifies the highs and lows of a person's relationship with a service and highlights actionable opportunities for brands to make improvements. It can be used to examine the most important service moments at both the brand and the customer journey level.

Through its unique focus on the importance of love at the center of the customer experience,

The Love Index anchors the entire design and innovation process, enabling brands to reach new heights in an era of changing consumer expectations. The research revealed five dimensions for measuring customers' feelings toward a brand experience. These five fresh dimensions systematically explain why people love specific experiences:

- Fun—holds people's attention in an entertaining way
- Relevant—makes it easy to find clear and customized information
- Engaging—identifies with people's needs and adapts to their expectations
- Social—helps people connect with each other
- Helpful—is efficient and easy, and adapts over time

The Love Index is an example of a wider movement toward next-generation customer engagement and net promotertype measurements. These new digitally relevant metrics are not only holistic in nature but also paramount to designoriented transformation. They are powerful tools as inputs into design scrums. They serve as a very effective means of tracking implementation steps. And they can aid in measuring the level of financial impact.

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## ORGANIZATIONAL TRANSFORMATION: ROTATE. MEASURE. REPEAT.

As energy providers continue rotating to a digital operating model, it is important to measure the speed at which this transformation is happening—both internally and externally with consumers. Those metrics can be both hard and soft. And, since transformation is inherently temporary, and because digital business eventually becomes business as usual, digital rotation metrics are timebound.

Across industries, organizations frequently use a mix of hard metrics to measure the progress of the digitalization of their business. From a consumer perspective, we see companies using metrics such as the proportion of interactions that are digital and/or bot assisted. Given the important role that the digital shift plays on operating model rotation, digital traction metrics have become the new norm for many consumer- and servicebased organizations (see sidebar: digital traction metrics).

Similarly, given the rising importance of managing an ecosystem, digital leaders are using metrics around ecosystem density to measure the consumption and supplier relationships an enterprise has with other businesses (through APIs). They can thus quantify how connected the enterprise is, how integral a part it plays in its ecosystem and how robust the complex partnership models are.

From an internal perspective, depending on the scope and scale of transformation, organizations are actively tracking the percentage of spend on digital across marketing, sales and other capabilities. From a workforce perspective, industry leaders are actively tracking talent diversity in new ways, such as number of designers, data scientists and artificial intelligence experts and number of scrum teams. Alongside the hard metrics, soft metrics are imperative to measuring organizational change. These include time to impact, organizational agility and internal NPS.

Energy providers can use innovation and agility metrics to measure progress in launching new digital products and services in a world of rapid prototyping. To gauge effectiveness in embracing a startup mentality, leading organizations are carefully watching:



**VOLUME METRICS** 

how many concepts and prototypes have been generated and how many went to market commercially



**SPEED METRICS** 

time to market from Minimum Lovable Product ("prototype") to Minimum Marketable Product ("full product")



**FINANCIAL METRICS** share of revenue/margin from new digital products and services

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### REWRITING SCORECARDS? **NO-CHANGING THE GAME.**

A shift to a customer-centric operating model represents a fundamental rotation of a business. To succeed, energy providers will be challenged to maintain focus and drive unless a completely new set of measures is put in place. Truly, a new facet of the insight-driven organization is the ability to look back, ahead and in all directions—all at once. Accenture believes that next-generation metrics tracking will become a core competency of the leading digital energy providers.

### DIGITAL TRACTION METRICS

Designed to measure customer engagement in digital channels, digital traction metrics help in understanding both the popularity and market adoption of a product or service in digital channels. With a wide array of digital traction metrics available, Accenture recommends a combination of behavioral metrics, including frequency of use, degree of active usage and customer engagement.



**NEW ENERGY CONSUMER** 

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# MOVE AHEAD WITH NO REGRETS: SEVEN STEPS TO ACCELERATE DIGITAL TRANSFORMATION

Differing market structures, economic realities, cultures, urgency and cash flows mean that each energy provider must develop its own roadmap for advancing toward the digital operating model. And yet, acting too slowly could mean obsolescence for an energy provider—overtaken or disintermediated by faster, more agile competitors and peers.

While there is no one-path-fits-all journey, there are some moves that any energy provider can make to accelerate its rotation to a digital operating model. These no-regrets steps can enable a provider to organize and scale at speed—helping reduce cost to serve while delivering a consistent customer experience across all touchpoints:

#### 1. Set up the appropriate organization and KPIs.

Consider appointing a Chief Digital Officer to set digital strategy and lead digital transformation.

Set up a digital hub to steer the transformation at scale and speed.

Define a digital governance and collaboration model across the organization.

Update key performance metrics to include The Love Index and digital rotation metrics.

## **2. Build a digital workforce and foster digital leadership.**

Establish digital studios and hubs to accelerate the adoption of a peoplecentric culture and digital mindset. That will facilitate more collaborative, nimble ways of working between business and IT as they apply design-thinking and agile methods.

Implement new digital organizational models, design-friendly workspaces, interfaces and tools. For example, reward new behaviors and empower workers to be innovative and creative.

Develop a digital-learning curriculum and platforms to rapidly push digital knowledge to workers. Leading providers have already deployed design-led training programs to hone the skills of high-potential workers and build new leaders.

## **3. Digitize customer journeys.**

Create and/or review all customer journeys. Then build a plan to have them fully available in digital channels within one year. Adopting an end-to-end approach to digitization of customer journeys—across channels and business functions—will support an omnichannel customer experience.

### **4. Become relentlessly** customer obsessed.

Put the customer at the heart of all operations. Exceed customer expectations by delivering seamless and relevant consumer experiences across all touchpoints—all day, every day.

A critical prerequisite is the ability to work horizontally across silos, including sales, marketing and service. Set up a customer engagement control tower to continuously improve customer experience and operational effectiveness in day-to-day operations and have an end-to-end integrated customer view across marketing, sales and customer service.

Embed deep analytics capabilities to capture and analyze consumers' behavioral and user preference data throughout the entire customer journey—and then apply these insights to drive decision making at all levels.

Manage sales and service in an integrated way to confirm digital tuning across multiple channels as part of an omnichannel customer experience.

#### 5. Automate customer operations and bring new insights by deploying robotic process automation (RPA) and artificial intelligence (AI) in operations at scale.

Leading energy providers are already doing so—leveraging robotics, cognitive computing and AI to automate routine tasks in front-office, back-office and enterprise functions, and gain new insights and apply that intelligence to offer new services. Many energy providers have, at minimum, reoriented their customer operations capabilities around RPA and AI technologies. They've moved beyond isolated projects to the scalable adoption of multiple digital tools to achieve outcomes from automation.

#### **6.** Enable agility at scale.

Enable hyper-personalization, decouple legacy systems from frontend interaction channels and add an intelligence layer on top of CRM systems. Identify as-a-service-friendly capabilities, such as customer analytics and engagement platforms. And reassess the vendor landscape. Launch digital technology capabilities (mobile, analytics, cloud, blockchain, security, RPA and AI) that will shape and benefit virtually every function in the organization.

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Embrace AI and scale robotics programs for operational efficiencies. Start piloting chatbots for customerfacing capabilities.

# 7. Create new business and ecosystem management capabilities.

These capabilities will help keep options open for the future. Make strategic choices on the role and scope of services in the market. Choose a single play or a combination of strategic customer plays of the future.

Define an ecosystem strategy and advance partnerships and alliances to help make your strategy a reality.

Proactively shape a new regulatory strategy and model (for example, industrial standards, utility commission standards, security standards and ISO standards).

Selectively invest in strategic assets, such as distributed energy resources, the connected home, and electric vehicles grid automation. Investment in strategic assets should start small, with a focus on incremental improvements.

Constantly innovate and reinvent based on market opportunities and changing consumer behaviors.

Accenture believes that to create a truly sustainable advantage, successful energy providers will embrace disruption beyond technology. Above all, they will create a culture that puts people—customers, workers and partners—at the center of change as they fundamentally rethink their operating models.

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# THE NEW ENERGY CONSUMER RESEARCH

Accenture undertook the multiyear New Energy Consumer research program to help gas, electricity and water utilities understand emerging consumer needs and preferences, to identify new challenges and opportunities and to bring focus to the critical competencies required to succeed in the evolving energy marketplace.

Collecting eight years of consumer insights from interviews with 80,000 end consumers around the world, the initiative has explored a range of topics:



Understanding Consumer Preferences in Energy Efficiency offers a consumer view to support the increasing industry focus on smart metering and demand management. This first study produced valuable insights into consumer preferences in energy efficiency, awareness, readiness and willingness to take action.

# Revealing the Values of the New Energy Consumer explores the emergence of a new energy marketplace through a worldwide end-consumer survey looking at preferences, opinions and priorities in beyond-the-meter products and services offered by utilities or other providers.

# 2012

Actionable Insights for the New Energy Consumer focuses on developing actionable insights and tactical implications for the emerging energy marketplace. This study explores consumer choice, connection and loyalty, and provides a fresh view of how consumers want to interact with their energy providers, the products they value and what drives their purchasing and loyalty behavior.

# 2013

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The New Energy Consumer Handbook looks to the path ahead for energy providers addressing key consumer "dissatisfiers" and offers views to help deliver on the diverse expectations and needs of residential consumers and small and medium businesses (SMBs).

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# 2014

The New Energy Consumer: Architecting for the Future explores new opportunities in virtual customer interaction, the connected consumer, distributed energy and new products and services. It also offers Accenture's view of the energy consumer of the future.

# 2015

The New Energy Consumer: Unleashing Business Value in a Digital World explores the ways in which energy providers can capture digital value. It discusses opportunities for energy providers to extend the value proposition through innovative offerings and new ways of engaging energy prosumers. The research explores the growing potential of platformbased models in the digital energy ecosystem.

# The New Energy Consumer: Thriving in the Energy Ecosystem looks at the manner in which energy providers can reorient their business around fluctuating levels of consumer engagement. The research explores the rise of the millennial consumer, the continuing influence of digital technologies, and the rise of the new energy experience. The point of view provides a perspective on market forces and the latest consumer trends, how energy providers can move forward via strategic customer plays, and the next wave of disruptive customer innovations.

2016

2017

The New Energy Consumer: New Paths to Operating Agility consolidates the key transformational imperatives that energy providers should consider as they implement a digital customer operating model. The research explores differing approaches to digital channel shift, advanced personalization, the changing influences of the new energy ecosystem as well as customer expectations around automation and artificial intelligence. The research continues to explore customer sentiment toward distributed energy resources, emerging offers in collaborative energy, and disruptive interaction technology.

40 NEW ENERGY CONSUMER NEW PATHS TO OPERATING AGILITY

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## The New Energy Consumer 2017 research methodology and sample

Accenture's global research surveys are based on questionnaire-led interviews with end consumers. Surveys were conducted online in native languages for Accenture by Harris Interactive. The selected countries represent a range of regulated and competitive markets. For residential consumers, the survey sample was statistically representative of the general population in each country, with the exceptions of Brazil, China, Malaysia, and the Philippines where the sample was representative of the urban populations. For countries with large and/or diverse populations, participants were selected from a broad spectrum of locations. The surveys included attitudinal, behavioral and demographic questions.



A total of 9,719 interviews in 18 countries

**United States** 

Regulated markets: Brazil, Canada (some provinces), China, Malaysia, Singapore, United States (some states)

Competitive markets:

Australia, Canada (some provinces), France, Germany, Ireland, Italy, Japan, Netherlands, Philippines, Portugal, Spain, Sweden, United Kingdom, United States (some states) Breakdown by gender and age



Notes: \* Sample representative of the urban population.

The maximum margin of error is of +/- 1 point on the total sample and +/- 4.5 points at the country level.

Trend data: countries have been added/removed from the scope compared with previous years; however, this change does not impact trends.

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#### ABOUT ACCENTURE ENERGY RETAIL AND CUSTOMER SERVICES

Accenture Energy Retail and Customer Services delivers energy provider customer solutions for both competitive and regulated markets globally. We help our clients achieve four key business imperatives: cost effectiveness, revenue assurance and extension, customer satisfaction and demand optimization. Guided by New Energy Consumer research program insights, our electricity, gas and water clients can realize higher value through industry specific strategy, digital, technology and operations capabilities and world-class **expertise, assets, tools and accelerators.** 

#### **ABOUT ACCENTURE**

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#### Harvard Business Review



CUSTOMER SERVICE

# **Kick-Ass Customer Service**

by Matthew Dixon, Lara Ponomareff, Scott Turner, and Rick DeLisi

FROM THE JANUARY-FEBRUARY 2017 ISSUE

hink about the last time you flew. When you checked in, did you use a self-service option– like the airline's website, app, or airport kiosk—to check your bags, choose your seat, and print out your boarding pass? Or did you instead wait in line at the airport to speak with a human being? If you're like most people, you used the self-service option. Indeed, our data show an overwhelming preference for self-service: Across industries, fully 81% of all customers attempt to take care of matters themselves before reaching out to a live representative.

Self-service offers companies a tantalizing opportunity to reduce spending, often drastically. The cost of a do-it-yourself transaction is measured in pennies, while the average cost of a live service interaction (phone, e-mail, or webchat) is more than \$7 for a B2C company and more than \$13 for a B2B company. Corporate investment in self-service technologies has been enormously effective at removing low-complexity issues from the live service queue, and most companies we've studied report a steady reduction in such contacts over the past few years.

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#### What People Really Want from Customer Service

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All this creates a new challenge: As customers handle more of the simple issues themselves, frontline service reps get increasingly tough ones—the issues customers solve on their own. And today's reps are struggling with these complex problems. As one service leader at a large retailer admitted to us, "Our people are woefully ill-equipped to handle today's customers and their issues. We're not running a contact center here. It's more like a factory of sadness."

Compounding the issue, as companies have focused on new self-service technologies, they've underinvested in frontline service talent. They still hire, onboard, develop, and manage their service reps in much the same way they always have. While the self-service experience has improved dramatically in recent years, the live service interaction has barely changed in decades, creating a gap between customers' expectations and actual experience. Tales of poor service provoke outrage on social media and go viral despite companies' best efforts to contain them. Not surprisingly, customer satisfaction has been in steady decline across industries for years.

What's more, putting unprepared staff on the phone with irate customers is expensive. Complex issues take longer to handle, driving up costs: The average cost of a live service contact jumped from \$7 in 2009 to nearly \$10 five years later. Inadequate training also drives staff turnover, which is exacerbated by a tightening labor market—attrition among customer service reps has shot up from 19% during the Great Recession to 24% today. Not only does higher turnover increase recruitment and training costs, but it also forces companies to pay more to retain the reps they have, lest valuable knowledge and experience walk out the door.

In a world of self-service, talented reps matter more than ever. But what sort of people are best equipped to handle today's customers? And how can organizations ensure that they attract and retain the most-effective reps? That's what we set out to learn.

#### **Seven Types of Reps**

To determine the optimal service representative profile, we conducted a global, cross-industry study of 1,440 reps. We found that all reps fall into one of seven profiles we derived from the data: Accommodators, Competitors, Controllers, Empathizers, Hard Workers, Innovators, and Rocks (see the exhibit "The Seven Types of Reps"). Our team then interviewed dozens of reps to better understand how the different types approach their jobs. We also surveyed contact center supervisors about the types of reps they like to hire and manage.

When managers see the seven profiles, they prefer, by a wide margin, Empathizers—42% of the managers we surveyed favored this profile. It's not surprising, then, that Empathizers made up 32% of all frontline service reps in our study. In interviews, managers described the ideal rep as "service-oriented," "a good listener and communicator," and someone who "likes helping others." That role is not an easy one. Said one VP of service for a large cable operator, "Today's customers are unbelievably impatient. As soon as we ask how we can help them, they jump down our throats. They're frustrated because of the amount of time they've had to invest on their own, frustrated by the amount of conflicting information they find on the internet, and frustrated by the thought of having to deal with a service rep. They're not calling us because they want to; they're calling us

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#### because they have no other choice."

#### **Climbing Costs, Fleeing Reps**

As call complexity increases, the average cost of a live service contact has risen 38% since 2009.

#### COST PER LIVE CONTACT (moving average, US\$)



Many reps are ill-equipped to handle complicated customer calls, and they're quitting in droves.

#### **EMPLOYEE TURNOVER RATE (moving average)**



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#### The Seven Types of Reps

A global, cross-industry study of 1,440 frontline service representatives revealed distinct differences in personality and approach to the job. Empathetic reps were by far the most common type, but Controllers ranked number one in making interactions efficient and painless.



FROM "KICK-ASS CUSTOMER SERVICE," BY MATTHEW DIXON ET AL., JANUARY-FEBRUARY 2017

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So how well do Empathizers perform? To find out, we collected rep-level data on key metrics used for performance management in service organizations. In line with our own research into what drives customer loyalty in the service environment, we focused on reps' ability to make service

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interactions as effortless as possible . We also factored in other quality indicators, such as customer satisfaction levels, along with productivity measures such as average handle time.

Our results departed dramatically from what managers expect: Empathizers don't come out on top; Controllers do. The latter outperform all other types of reps on a host of quality and performance measures—most notably, reducing the effort required of customers. Yet service managers like this profile least: Only 2% said they would hire Controllers ahead of other types.

#### Simply Solve Customers' Problems

CEB data from more than 100,000 customers worldwide shows that interactions with service reps are four times likelier to lead to customer than to loyalty. So, as we've argued elsewhere (see the "Further Reading" box), companies should focus on sparing customers grief rather than trying to delight them with over-the-top service. Here are some suggestions:

#### Improve self-service tools.

Customers may not need live help if selfservice channels are simple and intuitive. That doesn't have to mean big investments in new technologies. A leading credit card company, for instance, designed an interactive tool that customers see as soon as they visit the support website. The tool asks two questions about the reason for their visit and then guides them to the optimal channel for solving the matter. This approach helped cut interactions via e-mail (a particularly high-cost and lowsatisfaction channel) by a third.

Preempt repeat calls.

Why do Controllers do better than their counterparts? Our structured interviews revealed that they are driven to deliver fast, easy service and are comfortable exerting their strong personalities in order to demonstrate their expertise. They describe themselves as "take charge" people who are more interested in building and following a plan than "going with the flow," even in social situations. They're confident decision makers, especially when nobody's in charge, and they're opinionated and vocal. As one Controller explained, "I like to take control of the situation and guide people."

And as the problems reps deal with have become more complicated, Controllers have turned out to be the best problem solvers. Not only do they proactively diagnose customer issues, but they also consider the customer's personality and the context of the call in order to customize a solution and present it effectively. Controllers focus less on asking customers what they'd like to do and more on telling them what they do—the aim always being to get to the fastest and easiest resolution. The conversation feels decidedly

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Don't obsess about resolving customer issues in a single phone call or e-mail; instead, concentrate on "next-issue avoidance." Customers often recontact companies when the fix for their original problem creates a new concern. So be proactive: Help with whatever people call about, but also address issues they're apt to call back about. One of our clients, a utility provider, texts customers with status updates about how it's handling their issues—a strategy that prevents repeat calls to check on work-order progress.

## Use "experience engineering" techniques.

Another effective strategy involves training frontline representatives to shape people's perceptions of the customer service experience. For example, you can teach your team how to use language to influence customers' reactions to disappointing answers or proposed solutions. Consider the cable operator whose subscribers were annoved to be given an eight-hour service window for next-day repairs. Today the company's reps make that all-day window more palatable by offering another option: a two-hour window in three business days. Faced with a slower response, the vast majority of customers gladly take the eight-hour window.

human and off-script: Controllers tend to shun generic language and prescribed checklists, especially when their diagnosis suggests that customers have already invested significant time trying to resolve an issue on their own.

Consciously or not, Controllers deliver what information-saturated customers want (according to the research): clear guidance instead of excessive choice. In CEB's customer contact practice, for example, we've found that 84% of customers would prefer a straightforward solution to their problem rather than a broad array of self-service channels (e-mail, chat, social media-based service, and so on). In our sales practice, we've discovered that providing customers with prescriptive guidance that simplifies big purchase decisions leads to far lower levels of buyer's remorse. And in our marketing practice, we've found that brands scoring in the top quartile of the "decision simplicity index" are 85% likelier than those in the bottom quartile to be purchased by consumers.

Managers looking to shift to a Controller approach in their service interactions face three pressing challenges: hiring more Controllers; teaching other types of reps the skills necessary to create a

Controller experience with customers; and rebuilding the climate of the service organization to encourage and reward Controller behavior.

#### **Hiring Controllers**

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Controllers accounted for only 15% of the customer service reps in our sample. Given their scarcity and their superior performance, you might assume they'd be harder to attract or more expensive to hire than other candidates. To test this, we studied a panel of 1,022 job seekers. After classifying each job seeker as one of the seven rep types, we tested each group's appetite for frontline customer service roles. Controllers, we found, are just as likely as other reps to accept a job paying under \$35,000 a year (the average for contact center workers), are less likely to hold a college degree, and are more likely to apply for a frontline customer service job.

#### **ESSENTIAL BACKGROUND**

How to Fix Customer Service CUSTOMER SERVICE WEBINAR by Matthew Dixon

Featuring Matthew Dixon, group leader, CEB, and coauthor of multiple Harvard Business Review articles, including "Kick-Ass Customer Service: Customers Want Results—Not Sympathy."

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This doesn't mean that hiring Controllers is easy. A number of obstacles stand in the way. First, the messaging that companies typically use to attract candidates to frontline service positions is more likely to repel than attract Controllers. Our team audited the job postings of several dozen 500 companies and found that the firms all used much the same language to describe their frontline rep positions—though, ironically, many of them tout the unique, differentiated customer

service they offer. These firms tend to call for candidates with "proven customer service skills," thereby limiting the candidate pool to applicants with previous service experience (who, according to our data, are far less likely to be Controllers).

These companies also offer a highly generic employment value proposition: Virtually every posting we reviewed promised some version of "challenging career opportunities" and a "culture that rewards performance." Additionally, the typical postings signaled a desire for candidates who conform to old stereotypes of customer service workers—people who "can meet quality and productivity standards," deliver service "through the use of multiple systems, applications, administrative processes, and operational tools," and "work an eight-hour shift." Unfortunately, this sort of role is exactly the opposite of what Controllers are looking for. In our interviews, they indicated a clear preference for the flexibility to express their personality and handle issues as they think best. A posting that describes a rote and mechanistic service role tells Controllers that the

company is seeking factory floor drones who can follow rules and procedures, not knowledge workers who will be trusted to exercise their own judgment to deliver superior customer service. That's a deal breaker for Controllers.

By rewriting job postings, companies can powerfully influence whom they attract. Macquarie Telecom, in Australia, surveyed its high-performing reps to find out what excited them about their work and then crafted a job posting to draw attention to those features. The company promises that reps will "serve as the customer's primary point of contact" and "own customer issues, from start to finish." Job listings also include phrases picked up from Macquarie supervisors, who describe their best customer service staffers as "keen problem solvers" with a unique ability to "think on their feet" and as "self-starters who are comfortable taking the initiative." Finally, Macquarie's postings spotlight the employee benefits that high performers said they valued most–such as a world-class training program for new hires, the ability to earn industry certification, and the opportunity to work in an energetic, fast-paced environment.

#### Fixing the Problem—and Then Some

More than other types of service reps, Controllers take charge, directing the customer interaction and efficiently solving customers' problems.

ACTIVITY	WHAT MOST REPS DO	WHAT CONTROLLERS DO
Engaging the customer	TREAT EACH CUSTOMER IN A CONSISTENT WAY, FOLLOWING A STANDARD SCRIPT	CUSTOMIZE THE INTERACTION TO INDIVIDUAL CUSTOMER PERSONALITIES AND CONTEXTS
	"First, I'd like to thank you for being a loyal customer. Now how can I help you today?"	"I see that you've called three times recently. Let's get this problem fixed for you."

Once an organization has learned how to draw in target candidates, it must become more aggressive about ensuring good fits. Like Macquarie, Canadian outsourcer Blue Ocean uses language designed to lure Controllers from diverse professional and personal backgrounds, not just those with prior service center experience: "If you excel at figuring out logic puzzles and logistics nightmares like organizing sports tournaments or planning long road trips with multiple vehicles, then we bet you have the right stuff." The company also uses deflective language ("This job isn't for the faint of heart") and is candid about the difficulties reps face: "Sometimes you won't know the right answer, but you're the kind of person who is always up for the challenge. You'll rely on your resources and quickly research a response-and sometimes

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Pinpointing the problem	STICK TO PRESCRIBED CHECKLISTS AND STEPS	IDENTIFY WHAT CUSTOMERS HAVE ALREADY DONE ON THEIR OWN AND SKIP AHEAD TO THE RIGHT NEXT STEP FOR THEM
	"First, we'll need to install the latest version of the software."	"OK, if you've followed all the troubleshooting advice on the website, then you've obviously already installed the latest software. Let's try something else."
Presenting solutions	GIVE CUSTOMERS A CHOICE OF RESOLUTION OPTIONS	PRESCRIBE THE FASTEST AND EASIEST RESOLUTION PATH
	"You can mail your device back to us at	"I don't see your device in stock at
	this address.	I'd recommend
	Or vou can	mailing us your
	bring it to one	old one—vou'll
	of our stores	get a
	for a	replacement a lot
	replacement."	faster."
Resolving issues	SOLVE ONLY THE PROBLEM THE CUSTOMER CALLED ABOUT	ANTICIPATE AND RESOLVE ADDITIONAL POTENTIAL PROBLEMS
	"Have I fully	"Customers in
	resolved your	your situation
	issue today?"	often end up
		facing a related
		issue. Let me tell
		you about that
		now so you won't
		have to call back

you'll just have to Google it." Clearly defining expectations not only dissuades poor-fit candidates—who are more likely to leave in the days and weeks following their initial training but also signals that the service organization has exacting standards, contradicting the assumption that anyone can do the job. Blue Ocean also takes care to combat negative stereotypes about the role, disseminating videos on social media to challenge common misperceptions and present Blue Ocean's service center opportunities in a favorable light.

Carefully crafted messaging will attract Controllers, but it won't guarantee that they'll receive safe passage through the hiring process. As we've discussed, many customer service managers have a strong preference for Empathizers and a bias against Controllers. We've created an interview guide to help overcome these biases by suggesting questions that will help identify Controllers and highlight "red flag" responses. For example, we suggest that interviewers ask, "Tell me about a time you realized that a process you've been asked to follow didn't make sense. What did you do?" and "Describe a time when you needed someone to do something right away but you knew that person is usually passive. What did you do?" Many companies we work with are using this "Controller screen" in prehiring interviews and

assessment tests, helping to streamline employee selection.

#### **Teaching the Controller Mindset**

Even a robust hiring approach, retooled to attract and identify Controllers, will leave companies with a significant number of other types of reps on the front lines. So in addition to better hiring, companies need to consider new approaches to talent development and performance management to help non-Controllers act more like Controllers.

Companies that have committed to imparting Controller skills have shifted their training curricula away from teaching product knowledge, rote processes for handling calls, and procedures for using systems and tools. Instead they're teaching reps to apply listening techniques and frameworks that replicate the Controller's instincts for quickly understanding what the customer needs and how to deliver the optimal personalized resolution. However, nuanced Controller skills can't be taught through traditional classroom instruction alone. Companies intent on developing Controller skills are increasingly moving toward on-the-job, manager-led coaching that helps reps attain greater mastery over time.

Unfortunately, most frontline managers confuse coaching with performance management. In the typical service organization, most coaching is an episodic, "check the box" exercise done away from the floor, usually once every week or two. These sessions often involve reviewing recorded calls from days or weeks prior, making reps struggle to recall and explain the details. And because the focus tends to be on what went wrong rather than why it happened, the sessions can feel punitive rather than constructive.

Though such coaching is common, in a study of more than 300 frontline customer service managers, we found that some managers use more-effective "integrated coaching"—interactions that happen on the floor in short bursts during the regular daily workflow. We saw a dramatic difference in the impact of the two coaching styles. Teams for which the majority of coaching was of the integrated variety performed 12% higher than average on company-reported quality and productivity metrics. Just as significantly, when managers focused on scheduled coaching, those teams performed 5% lower than average.

#### **Building a Controller-Friendly Service Organization**

Controllers value being allowed to solve problems in a way that doesn't require strict adherence to a rigid protocol. They also prize the freedom "to bring up problems with policies and procedures"— they want to be part of organizations that are serious about continual improvement and willing to

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give reps a voice in that process.

Creating this sort of climate—where reps are permitted to exercise judgment and help identify improvement opportunities—requires new ways of managing individual performance and team engagement. First, from a performance management perspective, companies must rethink their current "checklist" approach to quality assurance. The traditional QA method—which requires reps to stick very closely to a defined call process and scripted interactions ("Say the customer's name three times," "Apologize for any difficulty the customer may be experiencing," "Always thank the customer for being loyal," and so on)—runs directly contrary to a Controller approach.

One large bank replaced its QA checklist with a "flexible competency framework." Rather than scoring reps on their ability to stick to a script, the bank assesses them on core competencies such as negotiation and rapport building. Its framework doesn't tell them what to say but instead describes behaviors on a spectrum of performance from "novice" to "expert." For example, a novice might "talk over the customer," while a more advanced rep would "use a collaborative and assertive tone." By articulating the characteristics of high performance in each competency but not dictating a precise script, the bank leaves reps to exercise their own judgment in individual customer interactions—and to be evaluated by managers accordingly.

The bank's client interaction outcomes have dramatically improved as a result of this change. The approach helped fuel both a 5% increase in the number of customers paying their balances during the calls and a 30% improvement in customers' committing to a payment plan. The new framework also helped reduce rep appeals of QA scores. Previously the bank saw an average of 20 to 30 appeals each month—a rate that's since dropped to fewer than five a month. Said one of the organization's QA managers, "You want people to become experts in the skills that matter—not experts at rotely following directions. Our staff feel like the handcuffs have been removed."

#### **Further Reading**

For more on improving the service experience for customers by reducing their effort, see the following:

"Stop Trying to Delight Your Customers" Matthew Dixon, Karen Freeman, and In addition to approaching performance management differently, companies need to employ new vehicles for soliciting feedback from reps and involving them in creating a better customer experience. Fidelity Investments created an online discussion platform for reps to

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Nicholas Toman HBR, July–August 2010

"To Keep Your Customers, Keep It Simple" Patrick Spenner and Karen Freeman HBR, May 2012

Matthew Dixon, Nick Toman, and Rick DeLisi Portfolio/Penguin, 2013 funnel improvement ideas to senior management and seek colleagues' advice on how to handle customer issues. The forum is moderated by veteran service reps who act as conduits between the rep community and management, passing the best ideas along to the leadership team and communicating responses back to their fellow reps. In the forum's first year, reps posted more than 3,000 comments, including 350 ideas that management considered worthy of further evaluation. For example, reps identified a website timeout issue that was frustrating customers and leading to increased calls—a problem that was

rapidly fixed once it came to light. More than 100 improvement ideas have since been approved by senior management, helping the organization to save more than \$4 million.

Another major financial institution, in Australia, likewise created a process for inviting improvement ideas from reps. The company has a quarterly "Have Your Say Day," when reps present concepts to senior management. To help reps prepare, the company provides after-hours coaching on building business cases, making presentations to leaders, and developing project plans. Proposals are scored by management against standard criteria relating to financial impact, customer impact, ease of implementation, and other factors, and those clearing a defined score threshold are green-lighted for action. In addition to surfacing dozens of improvement opportunities—for instance, consolidating an internal function in the contact center, which reduced call transfers and generated efficiency gains of 350,000 Australian dollars annually—the effort has led to an 11% improvement in frontline staff engagement.

#### CONCLUSION

When we share our research with managers, they sometimes cringe at the thought of a service organization full of Controllers, let alone Controllers interacting with their most frustrated and troubled customers. Managers frequently tell us that Controllers "wouldn't be a good cultural fit" and would lack the requisite empathy to succeed. But our interviews reveal that Controllers are, in

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fact, quite empathetic. They do understand customers' needs and frustrations. But they respond in a distinctive way. They recognize that after toiling away online trying to self-serve, customers don't want an apology—they want a solution.

A version of this article appeared in the January–February 2017 issue (pp.110–117) of Harvard Business Review.



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3/19/2018

Forrester's Top Trends For Customer Service In 2016

to purchase, or help a customer resolve an issue post-purchase should be easy, effective, and strive to create an emotional bond between the customer and the company. Here are 5 top trends – out of a total of 10 – that I am keeping my eye on. My full report highlighting all trends can be found here:

**Trend 1: Companies Will Make Self Service Easier**. In 2015, we found that web and mobile self-service interactions exceeded interactions over live-assist channels, which are increasingly used by customers as escalation paths to answer harder questions whose answers they can't find online. In 2016, customer service organizations will make self-service easier for customers to use by shoring up its foundations and solidifying their knowledge-management strategy. They will start to explore virtual agents and communities to extend the reach of curated content. They will start embedding knowledge into devices — like Xerox does with its printers — or delivering it via wearables to a remote service technician.

**Trend 2: Field Service Will Empower Customers To Control Their Time.** 73% of consumers say that valuing their time is the most important thing a company can do to provide them with good service — whether on a call, in a chat, or while waiting for a service technician to troubleshoot and fix their product. In 2016, customer service organizations will better support customer journeys that start with an agent-assisted service interaction and end with a service call. They will explore lighter-weight field service management capabilities, which give customers self-service appointment management capabilities and allow agents to efficiently dispatch technicians and manage their schedules.

Trend 3: Prescriptive Advice Will Power Offers, Decisions, And Connections.

Decisioning — automatically deciding a customer's or system's next action — is starting to be heavily leveraged in customer service. In 2016, organizations will use analytics in a much more prescriptive manner — for example to prescribe the right set of steps for customers or agents to more effectively service customers; to correlate online behavior with requests for service and prescribe changes to agent schedules and forecasts. Analytics will be used to better route a customer to an agent who can most effectively answer a question based on skills and behavior data, or to better understand customer call patterns and preempt future calls.

#### Trend 4: Insights From Connected Devices Will Trigger Preemptive Service and

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#### Forrester's Top Trends For Customer Service In 2016

abound where companies are starting to monitor the state of equipment via IoT, and realizing new streams of revenue because of their customer-centric focus. To make the business model of IoT work, companies must keep a close eye on emerging interoperability standards: device-to-network connectivity, data messaging formats that work under constrained network conditions, and data models to aggregate, connect with contact center solutions, and act on the data via triggers, alerts to service personnel or automated actions.

Trend 5: The Customer Service Technology Ecosystem Will Consolidate. The

customer service process involves complex software that falls into three main categories: queuing and routing technologies, customer relationship management (CRM) customer service technologies, and workforce optimization technologies. You need to use solutions from each of these three software categories, which you must integrate to deliver quality customer service. We believe that the combination of: 1) mature software categories in which vendors are struggling with growth opportunities; 2) the rise of robust software-as-a-service (SaaS) solutions in each category; 3) rising buyer frustration; and 4) the increasing importance of delivering simpler and smarter customer service makes for ripe conditions for further consolidation to happen in the marketplace, This consolidation will make it easier for buyers to support the end-to-end customer service experience with a single set of vendor solutions.

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Harvard Business Review

**CUSTOMER SERVICE** 

## Stop Trying to Delight Your Customers

by Matthew Dixon, Karen Freeman, and Nicholas Toman

FROM THE JULY-AUGUST 2010 ISSUE

he idea that companies must "delight" their customers has become so entrenched that managers rarely examine it. But ask yourself this: How often does someone patronize a company specifically because of its over-the-top service? You can probably think of a few examples, such as the traveler who makes a point of returning to a hotel that has a particularly attentive staff. But you probably can't come up with many.

Now ask yourself: How often do consumers cut companies loose because of terrible service? All the time. They exact revenge on airlines that lose their bags, cable providers whose technicians keep them waiting, cellular companies whose reps put them on permanent hold, and dry cleaners who don't understand what "rush order" means.

#### **Obstacles All Too Common**

Most customers encounter loyalty-eroding problems when they engage with customer service.

56% report having to re-explain an issue

**57%** report having to switch from the web to the phone

**59%** report expending moderate-to-high effort to resolve an issue

59% report being transferred

Consumers' impulse to punish bad service—at least more readily than to reward delightful service—plays out dramatically in both phonebased and self-service interactions, which are most companies' largest customer service channels. In those settings, our research shows, loyalty has a lot more to do with how well companies deliver on their basic, even plainvanilla promises than on how dazzling the service

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**62%** report having to repeatedly contact the company to resolve an issue

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experience might be. Yet most companies have failed to realize this and pay dearly in terms of wasted investments and lost customers.

#### The Bad-Service Ripple Effect

Service failures not only drive existing customers to defect—they also can repel prospective ones. Our research shows:

**25**% of customers are likely to say something positive about their customer service experience

65% are likely to speak negatively

**23**% of customers who had a positive service interaction told 10 or more people about it

**48%** of customers who had negative experiences told 10 or more others

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To examine the links between customer service and loyalty, the Customer Contact Council, a division of the Corporate Executive Board, conducted a study of more than 75,000 people who had interacted over the phone with contact-center representatives or through self-service channels such as the web, voice prompts, chat, and e-mail. We also held hundreds of structured interviews with customer service leaders and their functional counterparts in large companies throughout the world. (For more detail, see the sidebar "About the Research.") Our research addressed three questions:

- How important is customer service to loyalty?
- Which customer service activities increase loyalty, and which don't?

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• Can companies increase loyalty without raising their customer service operating costs?

#### About the Research

We defined "loyalty" as customers' intention to continue doing business with a company, increase their spending, or say good things about it (or refrain from saying bad things). During a three-year period, we surveyed more than 75,000 B2C and B2B customers about their recent service interactions in major non-face-to-face channels, including live phone calls, voice prompts, web, chat, and e-mail. The companies represent dozens of industries, ranging from consumer electronics and packaged goods to banking and travel and leisure, in North America, Europe, South Africa, Australia, and New Zealand. We isolated the elements of each interaction that drove customer loyalty, both positively and negatively, and controlled for variables including the type of service issue, whether it was handled by an inhouse or an outside contact center, the rep's tenure with the company, the company's size, the customer's personality type, the customer's mood prior to the interaction, switching costs, the frequency with which ads were seen or heard, the perceived product quality and value, product price, the industry, and the specific company. Finally, we conducted several hundred structured interviews in order to understand companies' customer

exceeded during their most recent interaction.

Two critical findings emerged that should affect every company's customer service strategy. First, delighting customers doesn't build loyalty; reducing their effort—the work they must do to get their problem solved—does. Second, acting deliberately on this insight can help improve customer service, reduce customer service costs, and decrease customer churn.

#### **Trying Too Hard**

According to conventional wisdom, customers are more loyal to firms that go above and beyond. But our research shows that exceeding their expectations during service interactions (for example, by offering a refund, a free product, or a free service such as expedited shipping) makes customers only marginally more loyal than simply meeting their needs.

For leaders who cut their teeth in the service department, this is an alarming finding. What contact center doesn't have a wall plastered with letters and e-mails from customers praising the extra work that service reps went to on their behalf? Indeed, 89 of the 100 customer service heads we surveyed said that their main strategy is to exceed expectations. But despite these Herculean–and costly–efforts, 84% of customers told us that their expectations had not been One reason for the focus on exceeding expectations is that fully 80% of customer service organizations use customer satisfaction (CSAT) scores as the primary metric for gauging the customer's experience. And managers often assume that the more satisfied customers are, the more loyal they will be. But, like others before us (most notably Fred Reichheld), we find little relationship between satisfaction and loyalty. Twenty percent of the "satisfied" customers in our study said they intended to leave the company in question; 28% of the "dissatisfied" customers intended to stay.

The picture gets bleaker still. Although customer service can do little to increase loyalty, it can (and typically does) do a great deal to undermine it. Customers are four times more likely to leave a service interaction disloyal than loyal.

Another way to think about the sources of customer loyalty is to imagine two pies—one containing things that drive loyalty and the other containing things that drive disloyalty. The loyalty pie consists largely of slices such as product quality and brand; the slice for service is quite small. But service accounts for most of the disloyalty pie. We buy from a company because it delivers quality products, great value, or a compelling brand. We leave one, more often than not, because it fails to deliver on customer service.

#### Make It Easy

Let's return to the key implication of our research: When it comes to service, companies create loyal customers primarily by helping them solve their problems quickly and easily. Armed with this understanding, we can fundamentally change the emphasis of customer service interactions. Framing the service challenge in terms of making it easy for the customer can be highly illuminating, even liberating, especially for companies that have been struggling to delight. Telling frontline reps to exceed customers' expectations is apt to yield confusion, wasted time and effort, and costly giveaways. Telling them to "make it easy" gives them a solid foundation for action.

Telling reps to exceed customers' expectations is apt to yield confusion, wasted time and effort, and costly giveaways.

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What exactly does "make it easy" mean? Simply: Remove obstacles. We identified several recurring complaints about service interactions, including three that focus specifically on customer effort. Customers resent having to contact the company repeatedly (or be transferred) to get an issue resolved, having to repeat information, and having to switch from one service channel to another (for instance, needing to call after trying unsuccessfully to solve a problem through the website). Well over half the customers we surveyed reported encountering difficulties of this sort. Companies can reduce these types of effort and measure the effects with a new metric, the Customer Effort Score (CES), which assigns ratings from 1 to 5, with 5 representing very high effort. (For details, see the sidebar "Introducing the Customer Effort Score.")

#### Introducing the Customer Effort Score

We evaluated the predictive power of three metrics—customer satisfaction (CSAT), the Net Promoter Score (NPS), and a new metric we developed, the Customer Effort Score (CES)—on customer loyalty, defined as customers' intention to keep doing business with the company, increase the amount they spend, or spread positive (and not negative) word of mouth. Not surprisingly, CSAT was a poor predictor. NPS proved better (and has been shown to be a powerful gauge at the company level). CES outperformed both in customer service interactions. During our study, we saw many companies that had successfully implemented low-customereffort approaches to service. Following are five of the tactics they used—tactics that every company should adopt.

#### 1. Don't just resolve the current issue head off the next one.

By far the biggest cause of excessive customer effort is the need to call back. Many companies believe they're performing well in this regard, because they have strong first-contact-resolution (FCR) scores. (See the sidebar "What Should You Measure?") However, 22% of repeat calls involve downstream issues related to the problem that prompted the original call, even if that problem itself was adequately addressed the first time around. Although companies are well equipped to anticipate and "forward-resolve" these issues, they rarely do so, generally because they're overly focused on managing call time. They need to realize that customers gauge the effort they expend not just in terms of how an individual call is handled but also according to how the company

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CES is measured by asking a single question: "How much effort did you personally have to put forth to handle your request?" It is scored on a scale from 1 (very low effort) to 5 (very high effort). Customer service organizations can use CES, along with operational measurements of such things as repeat calls, transfers, and channel switching, to conduct an "effort audit" and improve areas where customers are expending undue energy. Many of the companies we work with use CES to intervene with customers at risk of defecting.

We found the predictive power of CES to be strong indeed. Of the customers who reported low effort, 94% expressed an intention to repurchase, and 88% said they would increase their spending. Only 1% said they would speak negatively about the company. Conversely, 81% of the customers who had a hard time solving their problems reported an intention to spread negative word of mouth.

We believe that the superior performance of CES in the service environment derives from two factors: its ability to capture customer impressions at the transactional level (as opposed to NPS, which captures manages evolving service events, such as taking out a mortgage or setting up cable service, that typically require several calls.

#### What Should You Measure?

The number one cause of undue effort for customers interacting with contact centers is the need to call back because their issue wasn't resolved on the first attempt.

Companies trying to measure how well reps resolve issues in a single call typically use the first-contact-resolution (FCR) metric, but fully half the time that doesn't supply information about repeat calls and the reasons behind them. Tracking repeat calls within a specified period (we recommend seven to 14 days) is not only easier than measuring FCR but also casts a wider net, capturing the implicit, or nonobvious, reasons customers call back, such as related downstream issues or an emotional disconnect with a rep. A word of caution: Tracking repeat calls instead of using FCR inevitably makes performance appear worse. However, we believe that it is a far better way to spot and eliminate sources of undue customer effort and that it can help companies boost loyalty in ways FCR cannot.

Bell Canada met this challenge by mining its customer interaction data to understand the relationships among various customer issues. Using what it learned about "event clusters," Bell began training its reps not only to resolve the

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more-holistic impressions of a company) and its ability to capture negative experiences as well as positive ones.

A related diagnostic tool, the Customer Effort Audit, can be downloaded at http://www.executiveboard.com/salesandma CustomerEffortAudit.html. customer's primary issue but also to anticipate and address common downstream issues. For instance, a high percentage of customers who ordered a particular feature called back for instructions on using it. The company's service reps now give a quick tutorial to customers about key aspects of the feature before hanging up. This sort of forward resolution enabled Bell to reduce its "calls per event" by 16% and its customer

churn by 6%. For complex downstream issues that would take excessive time to address in the initial call, the company sends follow-up e-mails—for example, explaining how to interpret the first billing statement. Bell Canada is currently weaving this issue-prediction approach into the call-routing experience for the customer.

Fidelity uses a similar concept on its self-service website, offering "suggested next steps" to customers executing certain transactions. Often customers who change their address online call later to order new checks or ask about homeowners' or renters' insurance; therefore, Fidelity directs them to these topics before they leave the site. Twenty-five percent of all self-service transactions on Fidelity's website are now generated by similar "next issue" prompts, and calls per household have dropped by 5% since the policy began.

#### 2. Arm reps to address the emotional side of customer interactions.

Twenty-four percent of the repeat calls in our study stemmed from emotional disconnects between customers and reps—situations in which, for instance, the customer didn't trust the rep's information or didn't like the answer given and had the impression that the rep was just hiding behind general company policy. With some basic instruction, reps can eliminate many interpersonal issues and thereby reduce repeat calls.

One UK-based mortgage company teaches its reps how to listen for clues to a customer's personality type. They quickly assess whether they are talking to a "controller," a "thinker," a "feeler," or an "entertainer," and tailor their responses accordingly, offering the customer the balance of detail and speed appropriate for the personality type diagnosed. This strategy has reduced repeat calls by a remarkable 40%.

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### One company teaches its reps how to listen for clues to a customer's personality type and tailor their responses accordingly.

The lighting company Osram Sylvania sifts through its call transcripts to pinpoint words that tend to trigger negative reactions and drive repeat calls—words like "can't," "won't," and "don't"—and coaches its reps on alternate phrasing. Instead of saying "We don't have that item in stock," a rep might explain, "We'll have stock availability for that item in two weeks." Through such simple changes in language, Osram Sylvania has lowered its Customer Effort Score from 2.8 to 2.2—18.5% below the average we see for B2B companies.

LoyaltyOne, the operator of the AIR MILES reward program, teaches reps to probe for information they can use to better position potentially disappointing outcomes. A rep dealing with a customer who wants to redeem miles for an unavailable flight might learn that the caller is traveling to an important business meeting and use this fact to put a positive spin on the need to book a different flight. The rep might say, "It sounds like this is something you can't be late for. The Monday morning flight isn't available, but with potential delays, you'd be cutting it close anyway. I'd recommend a Sunday evening flight so that you don't risk missing your meeting." This strategy has resulted in an 11% decrease in repeat contacts.

#### 3. Minimize channel switching by increasing self-service channel "stickiness."

Many companies ask, "How can we get our customers to go to our self-service website?" Our research shows that in fact many customers have already been there: Fifty-seven percent of inbound calls came from customers who went to the website first. Despite their desire to have customers turn to the web, companies tend to resist making improvements to their sites, assuming that only heavy spending and technology upgrades will induce customers to stay there. (And even when costly upgrades are made, they often prove counterproductive, because companies tend to add complicated and confusing features in an attempt to keep up with their competitors.)

Customers may become overwhelmed by the profusion of self-service channels—interactive voice response, websites, e-mail, chat, online support communities, social media such as Facebook and Twitter, and so on—and often lack the ability to make the best choice for themselves. For example,
technically unsophisticated users, left to their own devices, may go to highly technical online support communities. As a result, customers may expend a lot of effort bouncing between channels, only to pick up the phone in the end.

Cisco Consumer Products now guides customers to the channel it determines will suit them best, on the basis of segment-specific hypotheses generated by the company's customer experience team. Language on the site's home page nudges technology gurus toward the online support community; those with less technical expertise are steered toward knowledge articles by the promise of simple step-by-step instructions. The company eliminated the e-mail option, having found that it didn't reliably reduce customer effort. (Our research shows that 2.4 e-mails, on average, are needed to resolve an issue, compared with 1.7 calls.) When Cisco Consumer Products began this program, in 2006, only 30% of its customer contacts were handled through self-service; the figure today is 84%, and the volume of calls has dropped accordingly.

Travelocity reduced customer effort just by improving the help section of its website. It had learned that many customers who sought solutions there were stymied and resorted to the phone. By eliminating jargon, simplifying the layout, and otherwise improving readability, the company doubled the use of its "top searches" and decreased calls by 5%.

### 4. Use feedback from disgruntled or struggling customers to reduce customer effort.

Many companies conduct postcall surveys to measure internal performance; however, they may neglect to use the data they collect to learn from unhappy customers. But consider National Australia Group's approach. The company has frontline reps specifically trained to call customers who have given it low marks. The reps focus first on resolving the customers' issues, but they also collect feedback that informs service improvements. The company's issue-resolution rate has risen by 31%.

Such learning and intervention isn't limited to the phone channel. Some companies monitor online behavior in order to identify customers who are struggling. EarthLink has a dedicated team of reps who step in as needed with clients on its self-service website—for example, by initiating a chat with a customer who has spent more than 90 seconds in the knowledge center or clicked on the "Contact Us" link. This program has reduced calls by 8%.

### 5. Empower the front line to deliver a low-effort experience.

Incentive systems that value speed over quality may pose the single greatest barrier to reducing customer effort. Most customer service organizations still emphasize productivity metrics such as average handle time when assessing rep performance. They would be better off removing the productivity "governors" that get in the way of making the customer's experience easy.

An Australian telecommunications provider eliminated all productivity metrics from its frontline reps' performance scorecards. Although handle time increased slightly, repeat calls fell by 58%. Today the company evaluates its reps solely on the basis of short, direct interviews with customers, essentially asking them if the service they received met their needs.

Freed to focus on reducing customer effort, frontline reps can easily pick low-hanging fruit. Ameriprise Financial, for example, asks its customer service reps to capture every instance in which they are forced to tell a customer no. While auditing the "no's," the company found many legacy policies that had been outmoded by regulatory changes or system or process improvements. During its first year of "capturing the no's," Ameriprise modified or eliminated 26 policies. It has since expanded the program by asking frontline reps to come up with other process efficiencies, generating \$1.2 million in savings as a result.

Some companies have gone even further, making low customer effort the cornerstone of their service value proposition and branding. South Africa's Nedbank, for instance, instituted an "AskOnce" promise, which guarantees that the rep who picks up the phone will own the customer's issue from start to finish.

The immediate mission is clear: Corporate leaders must focus their service organizations on mitigating disloyalty by reducing customer effort. But service managers fretting about how to reengineer their contact centers—departments built on a foundation of delighting the customer—should consider this: A massive shift is under way in terms of customers' service preferences. Although most companies believe that customers overwhelmingly prefer live phone service to self-service, our most recent data show that customers are, in fact, indifferent. This is an important tipping point and probably presages the end of phone-based service as the primary channel for

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customer service interactions. For enterprising service managers, it presents an opportunity to rebuild their organizations around self-service and, in the process, to put reducing customer effort firmly at the core, where it belongs.

A version of this article appeared in the July–August 2010 issue of Harvard Business Review.



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### This article is about CUSTOMER SERVICE

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**10 COMMENTS** 

#### Reed Jones 2 months ago

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# CONNECTING SATISFACTION WITH NEXT-GENERATION FIELD SERVICE TECHNOLOGIES

HOW COMPANIES MANAGE SERVICE OPERATIONS TO DELIVER ON CUSTOMER AND EMPLOYEE EXPECTATIONS

A 2017 Field Service USA Report | featuring direct insights from field service experts





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### INTRODUCTION

Field service companies are at a turning point in their history as customer and employee demand for empowerment and visibility coincides with an enormous transition of responsibilities from veteran technicians to new field service recruits. While the vast majority of these companies acknowledge that creating outcome-based business models with the help of new technologies is essential to meeting those requirements, many doubt their ability to develop these solutions sufficiently to deliver on both customer and employee demands.

In many ways, the industry has not changed. Customer satisfaction remains the most widely acknowledged KPI among these companies and their greatest pressure over the next twelve months. However, field service companies are discovering that their old models for achieving customer satisfaction are no longer sufficient. Demands for better service performance and greater visibility into processes are the source of their new, intrinsic problem.

Nonetheless, the solutions are within their reach. By leveraging new field service technologies—such as mobile applications and remote access to experts and making incremental process improvements, these companies can both facilitate the success of their new employees and deliver on customer expectations. This requires a holistic approach in which workforce optimization and technology adoption strategies extend to service efficiency, greater customer visibility, and greater collaboration across departments and among remote workers in the field. Although field service companies must take all of these factors into consideration—nextgeneration technologies, knowledge management, and enabling customer satisfaction—they are finding that each contributes to the success of the other in a smart, next-generation field service environment.

In partnership with DSI, creator of mobile-first and cloud supply chain solutions, Field Service USA conducted a study of 100 industry leaders to gauge success metrics and preparedness among field service companies. In this report, we explore:

- the connections between new technologies and customer satisfaction
- customer and employee demands for greater visibility into service processes, including requesting service, accessing service history, and both inspecting and approving work
- Internet of Things (IoT) and other methods for improving field service capabilities
- knowledge management and readiness for the next-generation of field service employees

### **IDENTIFYING HOLISTIC FIELD SERVICE SOLUTIONS**

In our study, field service companies acknowledge that successful customer service hinges on the expertise, resources, and timeliness of its technicians and staff. Among the options available, the largest group of field service companies (43%) considers improving customer service the greatest pressure facing their businesses for the next 12 months, and another 24% consider improving customer service their second-greatest pressure.

Improving customer service is the greatest pressure facing field service companies for the next 12 months. In fact, customer satisfaction is a relevant metric to more companies than any other metric in the study.

But while customer service is a top two priority for 67% of field service companies, technology adoption by their workforce—a challenge that spans generations—is the greatest or second-greatest pressure facing 50% of field service companies for the next twelve months.



Among the following options, please rank the top five pressures your business is facing for the next 12 months, where "1" is "greatest pressure" and "5" is "least greatest pressure."

Meanwhile, driving revenue from services is an additional priority among field service companies, in no small part related to improving customer service. 54% consider choosing the right tools to maximize efficiency as their least or second-least greatest pressure, and 67% consider an aging workforce as such.

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#### What specific challenges are you looking to overcome in 2018?

"Keeping both staff and customers happy. It is vital that our staff is happy to ensure efficient service delivery so that eventually customers are happy. But with the changing and expanding needs of customers... we certainly have a challenge." "Technology is now the real challenge. There is no clarity on the best technology; and as the technology landscape is changing all the time, it is very difficult to adjust."

What emerges is a clear set of themes — maximizing efficiency and productivity to improve customer service and subsequently drive revenue. To this end, field service companies must take on requisite challenges associated with technology adoption and training. This applies to both existing employees and younger recruits with expectations as to what technology resources will be available to them. Preserving and improving satisfaction among both customers and employees in order to drive revenue command the greatest executive attention, where aging employees is perhaps a less direct concern.

### Critical Factors for Technology Adoption

Just as customer service is the greatest pressure field service companies are facing over the next twelve months, customer satisfaction is a relevant metric among the greatest number of companies (88%) today, between eight options available. Total cost of service (78%) and employee satisfaction (62%) are also relevant to a majority of organizations.



Which of the following metrics are still relevant to your organization? Select all that apply.

Adopting new technologies can improve opportunities to meet these three related criteria directly—improve service quality, reduce costs, and improve employee satisfaction. However, field service companies face challenges in adopting new technologies on two fronts: first, incorporating new technologies into their regular workflow; and second, facilitating the success of a new generation of employees with greater familiarity—and greater expectations—in terms of technology capabilities.

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#### What strategies are you using to manage the shift to new technologies?

"Technology is changing fast and so are the demands of our customers. We need to be able to adapt to these changes as quickly as possible and certainly ahead of our competitors."

"Coupling technology between consigners, engineers, and staff, which will enable on-field staff to make better, informed, and agiler field decisions." "We are increasing our spend on IT and making the most efficient use of newer services and technologies to bring better revenues."

Smaller majorities include first-time fix rate (56%) and turn-over rates (55%). Fewer than half of field service organizations find that overtime paid (42%), jobs completed per day (40%), and on-time rates (19%) continue to be relevant metrics to their organizations. 2% of organizations claim there are other relevant metrics not listed.

#### Achieving Field KPIs and Customer Satisfaction

Despite these priorities, field service leaders doubt their ability to deliver on customer satisfaction because of technology restraints, and these shortcomings are directly related to technology issues among field technicians. Upon considering one important field capability—accessing inventory information—we learn that only 13% of field service companies rate their ability to access inventory information when in the field to help with customer satisfaction as excellent, while 30% rate this ability as average or below average.



There is a clear disparity between companies in terms of employee satisfaction. Sixteen percent of companies consider their employees' satisfaction to be excellent as a result of their ability to access inventory information. That is more than any other KPI. But for the same reason, almost half of companies (41%) consider their employees' satisfaction to be only average or below average.

12% of field service companies consider their ability to access inventory information for the purpose of improving first-time fix rates as below average or poor, while only 5% consider their ability to be excellent. In fact, more field service companies consider this ability to be below average or poor than any other ability measured.

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#### What measures are your FSOs accountable for?

"Participating in field problem-solving situations and customer acceptance." "Communicating repair plans to technicians aligned with customer quotes to ensure profitability." "Inventory control, merchandising, marketing, customer relations, and employee relations." "Providing information and informal training on technical and operational fronts."

The KPIs that suffer the most among field service companies due to poor access to inventory information in the field are reduced costs of service, field training, and first-time fix rates. To reiterate, total cost of service is still a relevant metric to a majority of field service companies (78%), as are first-time fix rates (56%); but as a new workforce requires better-performing field technology and training on a range of abilities, field training becomes a greater priority among all companies, many of which are ill-equipped.

#### Taking on Rapidly Growing Customer Visibility Expectations

Both customers and members of the workforce demand more sophisticated technologies—for greater visibility into the field service process, as a means for validating the success of operations, or to enable better capabilities for completing services and delivering on customer expectations at the work site. In fact, customers' demands for visibility into field service processes as they affect their business have become unprecedented. Field service companies must acknowledge this essential issue and take steps to accommodate those demands while equipping workforces with the requisite skills and technologies to do so.



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Do you find that your end customers (B2B and/or B2C) have greater expectations in terms of visibility into the process?



Already, 75% of companies find that their end customers (B2B or B2C) have greater expectations in terms of visibility into their processes. Now facing the regular scrutiny of their customers, field service companies need the capability to prefigure customer requirements and demands, then facilitate safe and efficient operations for each and every visit. Respondents to the survey who have encountered greater customer demand for visibility have already indicated what their customers' expectations are, and must develop the methods, guidelines, policies, and technology implementations to empower their workforce and deliver on those needs. Among those who responded yes, how would you describe your end customers' expectations in terms of visibility? Select all that apply.



Among those companies who have found that their end customers have greater expectations in terms of visibility into their process, 87% find that their customers expect to be able to inspect work against service orders and approve, and 85% claim their customers expect the ability to request service as well. Each of these groups of respondents makes up a majority of not only those that answered in the positive to the previous question, but of *all* respondents to the survey—approximately 65% and 64%, respectively—meaning a majority of all field service companies experience these demands.

In each case, a majority of those field service companies who do have customers with greater visibility expectations find those customers expect the ability to access service history (60%) and the ability to see tech locations on a map (55%).

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Customers with greater expectations in terms of visibility expect not one, but all measured capabilities, allowing greater visibility into the system. Additionally, a majority of all field service companies find that customers expect to be given the ability to inspect work against service orders and approve, and a majority of all companies find that customers expect the ability to request service.

Achieving specific KPIs like cost reduction, customer service, and employee satisfaction require more than investments in new technologies. Field service companies must shift the spotlight to real-time visibility and better communication between both team members and customers. As we will find, technology adoption is secondary to aligning customer interests to build long lasting relationships, as well as developing specifically designed applications that cater to all customer needs. When field service technicians can work with policies and procedures that help them achieve both customer and administrative goals, those companies will gain true perspective into which next-generation technologies will succeed.



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### SMART TECHNOLOGIES BOOST CORE COMPETENCIES

In 2018, field service companies will launch initiatives to achieve complete visibility of service processes, proactively following up with both field service teams and customers to ensure satisfaction among both parties. This will require that companies make decisions regarding service requirements and effectively schedule field service teams with customers' prerequisites in mind. Respondents to the study claim 'schedule coherence' is a specific challenge they seek to overcome in the coming year, which includes tracking project schedules to ensure complete understanding and timely completion.

#### Advancements in Scheduling and Dispatching

Is scheduling and dispatching resources a challenge in your organization?



Scheduling and dispatching resources remains a persistent challenge for most field service companies. In our study, field service companies are divided in terms of whether or not they find scheduling and dispatching resources to be an obstacle: just over half of field service companies (54%) find it to be a challenge, while 46% do not. Interestingly, the key component to overcoming this challenge is better technology.

Among those who responded yes, what specific challenges do you encounter with scheduling and dispatching resources? Select all that apply.



Existing technology limitations are hurting business. Among the 54% of companies for whom scheduling and dispatching resources is a challenge, the vast majority find that their manual scheduling and dispatching processes slow reaction times (80%). Another majority of these field service companies (78%) find it is hard to shift schedules to accommodate emergencies or delays, and 43% of these companies have an inability to show customers where their driver is en route.

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43% of companies who struggle with scheduling and dispatching have an inability to show customers where their driver is en route. Among companies that have customers with greater visibility expectations, 55% claim those customers expect to be able to see tech locations on a map.

The additional major contributor to scheduling and dispatching problems is an inability to successfully dispatch and apply expertise in areas where it is most needed. Over half of this segment of field service companies (52%) struggle to maximize productivity of resources with special skills due to difficulties with scheduling and dispatching resources. 39% of companies who have difficulties with scheduling and dispatching resources experience a great deal of waste in drive times as well.

The combined lack of technological capabilities and the resulting misplacement of skills present another area in which multiple field service capabilities are related. The ultimate shortcoming is with flexibility where the unique needs of end customers cannot be met due to procedural and technological restraints. Consequently, many field service companies are adopting next-generation technologies that best deliver on the needs of their customers and employees—while others continue to lag behind.



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### Mobile Apps Successfully Facilitate Field Work

Do you use mobile applications to facilitate work in the field?



Among those who responded yes, what benefits do you see from using mobile applications to facilitate work in the field? Select all that apply.



A majority of companies (63%) use mobile applications to facilitate work in the field, which has driven customer satisfaction for 84% of those companies (approximately 53% of all companies surveyed)—the most popular benefit of using mobile applications to be measured. Companies also cite completion of more work orders (68% of companies using mobile) and employee satisfaction (67% of companies using mobile)—the latter of which may be related to new workers' demands for better field technologies and better resources for performing their jobs.

Almost half of these field services companies (49%) have reduced their cost of service as a result of using mobile applications to facilitate work in the field, and another 49% have improved their first-time fix rate in this way.

The rate at which mobile technology is developing is having an effect on the overall strategies within service organizations. Even larger companies with the means to implement sophisticated solutions are falling short due to an inability to break from existing systems of training, management, and technology applications. As companies increasingly prioritize mobile within their strategies, they are realizing new degrees of flexibility and responsiveness to customer needs. But field service companies cannot rely on technology rollouts to their technicians to remain up-to-date for more than one or two years. As these companies adopt younger workers who are more open to a wide variety of mobile technologies and IT support mediums, they must take advantage of that availability by considering additional advances into artificial intelligence, automation, and—in the case of this study—Internet of Things (IoT).

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### IoT Is In Motion for Some, Still a Dream for Others

When implemented properly, IoT helps improve essential field service functions, but the degree to which companies must invest for success is a hold-up for many of them. For some, IoT is revolutionizing their business as they make substantial investments to bring technology to their service teams and customers. They are adopting new technologies to support their IoT model and are building pipeline resources using data analytics capabilities to manage IoT.

Still, some companies are cautious about adopting an IoT strategy. Most companies that are slow to IoT technologies find themselves in the early phase of adoption, either considering ways in which to build out IoT capabilities or investigating opportunities to build staff capabilities in-house. Other organizations are turning to third parties to manage their IoT initiatives.

"There is still lot of ambiguity around IoT and its actual effectiveness. We do not want to be rapid at it and risk failure; we want to be slow and steady so that we understand and implement with complete knowledge for success." "We are not yet very confident of the IoT concept and are thus first having a complete understanding of the technology and its influence before going for it in larger scale."



Those companies who have adopted IoT capabilities have already discovered they help with essential field service functions, piquing the interest of even wary field service companies still considering its advantages.

With regard to three essential IoT capabilities, 100% of field service organizations are either considering their adoption or have already adopted them. The only exception is telematics for vehicles, in which case 1% are not interested at the present time.

Most notably, half or more field service companies are already using IoT to either track high value assets like vehicles or tools (53%) or facilitate predictive maintenance (50%) in a single department or across departments—two key areas for improvement in terms of servicing customers. Most field service companies have adopted IoT capabilities for telematics for vehicles (69%) and tracking movement of assets within a yard, plant, on-site, or warehouse (68%) on at least a limited basis.

Among those companies still in the IoT planning phase (rather than investment), many cite a limited exposure to IoT capabilities, a desire to identify the specific capabilities to implement, and a need to align new IoT technologies with traditional lines of business. Identifying where new technologies fit within existing environments—and enhancing the capabilities of technicians and staff—is a consistent theme among field service companies.

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### **BUILDING NEXT-GENERATION SERVICE TEAMS**

Almost one-quarter of companies (23%) feel they are not meeting the next generations' expectations in terms of technology in the workplace, and an additional 8% do not know whether they are meeting those expectations.

Today, veteran field service employees on whom companies have relied for decades are retiring, transferring their responsibilities to younger workforces. This includes Millennials, for whom digital technologies are considered second nature, but for whom industry best practices honed over years of work by older generations are understandably lacking. Fortunately, most field service companies (69%) are confident they are meeting the next-generation's expectations in terms of technology in the workplace.



However, almost one quarter of companies (23%) feel they are not meeting those expectations. In context, this figure might be misleading. One-quarter of field service companies is not a majority, but since it represents companies' preparedness for an entirely new workforce, it is nonetheless a substantial number of companies who are unprepared.

Twenty years ago, one wonders, would this number be so high?

Although most field service companies (69%) are confident they are meeting the next-generation's expectations in terms of technology in the workplace, all companies have found that their young employees have high demands for a wide range of technology solutions. Consequently, field service companies face both inherent challenges and incredible opportunities in equipping the next workforce for success.



What technologies does your next-generation workforce favor or desire? Select all that apply.

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In considering these factors, three focus areas emerge from our research:

#### 1. Enable novice technicians to collaborate and access information in real time.

The majority of field service companies in the study found that new field service workers expect tools for instant communication, such as text and chat (75%), and tools for accessing information in the field (74%).

Companies can leverage connected technicians to meet customers' expectations for greater visibility, access to expertise, and faster job completion.

#### 2. Connect novices with experts with effective knowledge management solutions.

Transferring knowledge is a pressing and immediate challenge for field service companies. Fortunately, it needn't take place in only a passive setting. 69% of next-generation workers desire digital access to experts while in the field, inviting new methods for knowledge management and passing down expertise—even remotely, in real time—to provide the best possible service to customers.

# 3. Make superior tools, services, and customer-oriented applications a part of technicians' digital environment.

Those 61% of field service companies who acknowledge their next-generation workforce desires easy-to-use mobile apps can expedite benefits to customers using specialized mobile applications, allowing greater opportunities for improving both customer and employee satisfaction. This includes apps for special services as well as benefits such as instant access to experts—all of which can speed up and improve service processes.

The fact that the majority of field service companies believe they are meeting the next-generation's expectations in terms of technology in the workplace indicates most are making progress in at least one of these key areas. However, those respondents who felt their companies are not meeting those expectations face two problems: the first, falling behind competitors who take advantage of unique attributes among their new workers, and the second, experiencing complications integrating a new generation into their established but outmoded systems and processes. Regardless of their willingness to adopt new technologies, the degree to which field service companies connect new employees to their veterans will be a determinate factor in their success.

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## CONCLUSION

"We are in a very competitive market where new technologies are causing disruption. Adapting to these technologies and meeting customer expectations is the challenge we need to overcome."

There are two sides to field service companies' objectives entering 2018, both of which are directly affected by technology implementation. On one side, these companies face challenges in terms of driving customer satisfaction with greater visibility into their processes and services; on the other, they must increase employee satisfaction—enabling them to do their job effectively with the next-generation tools that empower them. To that end, service organizations must capture the knowledge of experienced technicians and make it available to new employees in real time, provide service information at the technician's fingertips, and enable tracking of vehicles, tech, and other tools; all of which will improve modern services and help field service companies excel.



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### **AUTHORS**

# **//** dsi.

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nationalgrid gas business enablement

# **Current State Assessment**



**GBE** Customer Engagement July 31, 2017

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**Customer Feedback** 

nationalgrid gas business enablement

Online research and CSAT verbatim were used to capture the Voice of Customer

The following sources have been used to capture the voice of the customer.

1	Customer Satisfaction Surveys	2
	<ul> <li>4k+ Gas Customers Surveyed</li> <li>via National Grid After Call</li> <li>Surveys</li> <li>8.1 Average CSAT score</li> </ul>	Ç
	Over 8 months	
	<ul> <li>From all 5 regions</li> <li>Upper New York</li> <li>Metro New York</li> <li>Long Island</li> <li>Rhode Island</li> <li>Massachusetts</li> </ul>	Ľ



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### 2 Customer Feedback

nationalgrid gas busines

Customer satisfaction surveys indicate that customers wants a seamless experience and easy access to information



Customers want access to information

Customers want to feel that their utility understands their needs

Customers want a seamless experience – not many "processes"

Source: Summarized results of National Gridconducted CSAT Survey, via GBE program

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**Customer Feedback** 

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Currently, National Grid has a customer average online rating of one star



Source: Yelp, Consumer Affairs

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nationalgrid gas bus

### Customers complain mainly about billing and appointment issues online

A sample of **90 customer online reviews** from **Consumer Affairs** posted in **the last 2 years** were analyzed to understand which areas were the **most common cause of complaints** by the National Grid customers.



### **Customer Online Reviews per Category**

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### **3** Pain Points and Opportunities

nationalgrid ga

### Employee input provides possible sources of Customer dissatisfaction

- Assessment phase outputs (gathered from National Grid employees) highlight internal pain points and opportunities for improvement
- Industry examples show how other companies have addressed similar issues
- Capability Assessment shows gaps in Customer areas
- Cross industry leading practices show a direction National Grid can aspire to achieve

Customer E	Experience Cap	abilities	national <b>grid</b>						
	٠	Current State 🔷 Desired Stat	6		Custome	er Strategy Pain Point Inventory			
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#### **Pain Points and Opportunities** 3

nationalgrid gas business

### Opportunities exist to address the observed pain point themes

Pain	Point Themes	Examples	Opportunities
O,	Visibility of Work & Resources	<ul> <li>Work initiated in multiple systems</li> <li>Not all work added to a system; manual work arounds common</li> <li>Work and resource statuses not visible to relevant stakeholders</li> </ul>	<ul> <li>Increased automation between systems</li> </ul>
	Integration between Systems	<ul> <li>Minimal integrations between the customer, work management and dispatch tools</li> <li>Inconsistent processes and workaround tools (Excel, MS Access databases) used to manage work as it flows through systems</li> <li>Billing Representatives perform duplicative work (cancel/rebills in two different systems)</li> <li>Issues exist with establishing customer identity / credit</li> <li>Inflexibility of systems to adequately serve the needs of employees</li> </ul>	Single source of truth for relevant data
	Data Accuracy	<ul> <li>Heavy use of paper contributes to inaccuracy of data</li> <li>Data managed in multiple systems without definitive system of record</li> <li>Manual interventions required to true up information and create reports via Excel</li> </ul>	<ul> <li>Increase in regulatory compliance</li> <li>Reinforce and Align Data Model and Governance</li> </ul>
Ð	Agility	<ul> <li>Existing technology does not provide the flexibility to adapt to changing regulatory requirements and customer demands</li> <li>Relevant information not readily available to execute tasks</li> <li>Customers receive delayed bills</li> <li>Issues require manual cancel/rebills to remove late charges from customers accounts</li> <li>Regulatory deadlines are missed by operations due to rising demand for interconnection from generators</li> </ul>	<ul> <li>Standardized and consistent processes</li> <li>Increase Digital Adoption</li> <li>Business Rules Rationalization</li> </ul>

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#### **Pain Points and Opportunities** 3

nationalgrid gas business enablement

### Opportunities exist to address the observed pain point themes

Pain Point Themes	Examples	Opportunities
Roles & KPIs	<ul> <li>Workaround processes create excessive administrative responsibilities for Field Supervisors</li> <li>Inconsistent metrics &amp; KPIs hinder organizational best practice</li> <li>Large amount of work completed by 3rd parties due to National Grid skill gaps or capacity constraints</li> </ul>	<ul> <li>Consistent and reliable performance measures</li> <li>Increased supervisor time in the field</li> <li>Refine Operational Goals, Measurements, Tracking</li> <li>Evolve Talent Acquisition and Retention</li> </ul>
Customer Visibility & Communication	<ul> <li>Minimal visibility into field activities or work status</li> <li>Limited self-service tools available to customers; no confirmation or validation of work status or completion</li> <li>Fragmented or non-existent Customer communications for certain work types</li> <li>Lack of consistent information on programs to customers</li> </ul>	<ul> <li>Increased first touch resolution</li> <li>Improved long &amp; short term forecasts/plan and relevant activities</li> </ul>
Customer Expectations	<ul> <li>Inflexible appointment options do not meet the customer demand</li> <li>Inability to provide the customer with specific and accurate timeframes for long cycle work</li> <li>Customers receive delayed bills due to issues that require manual cancel/rebills to remove late charges from customers accounts before processing payments</li> <li>Lack of payment flexibility for customers</li> <li>Billing issues associated with mid-month switching by customers</li> </ul>	<ul> <li>Improved customer satisfaction</li> <li>Develop and Deliver Learning to Bridge Knowledge / Skills Gaps</li> </ul>

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### Pain Points and Opportunities

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### Industry examples address similar opportunities



#### **Data Accuracy**

**Finding:** Heavy use of paper contributes to inaccuracy of data. Data managed in multiple systems without definitive system of record. Manual interventions required to true up information and create reports via Excel.

#### ≌'AGL

- Limited customer/predictive insight and no analytics to see what customers were doing along with no personalization capabilities
- Single, integrated digital platform with consistent look & feel with enhanced analytics & cloud capabilities to improve accessibility and experience

Source: Accenture

### 🜔 aps

- Minimal Data Governance structure, processes and tools leading to data integrity/security issues, pockets of manual data cleanup activities mostly at project level and some at system level; minimal ongoing data quality measurements
- Information Governance structure established to provide vision and direction for critical data elements, leadership for data governance initiatives, enterprise-wide standards for data management, processes, policies, procedures, and standards to ensure data is correct and consistent, clarity around data and information ownership *Source: Accenture*

#### **Integration between Systems**

**Finding:** Integrations between the customer, work management and dispatch tools are minimal. Inconsistent processes and workaround tools (Excel, MS Access databases) used to manage work as it flows through the systems. Issues with establishing customer identity / credit. Inflexibility in systems to adequately serve the needs of the Contact Center employees.



#### Portland General Elec

- Next Generation CIS implementation and execution in support of a five year Customer Transformation Program
- Central platform enables more robust analytics capabilities for customer information and product/program effectiveness. Aids in presentation of the correct information, via the right channel.
   Source: Accenture

#### Direct Energy

- Formerly no single view of customer; data is decentralized and difficult to access
- Consolidation of multiple customer databases e.g. CIS and others into smaller number and an overarching CRM Source: Accenture

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### Pain Points and Opportunities

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### Industry examples address similar opportunities



#### **Roles & KPIs**

**Finding:** Workaround processes create excessive administrative responsibilities for Field Supervisors. Inconsistent metrics & KPIs hinder organizational best practice. Large amount of work completed by 3rd parties due to National Grid skill gaps or capacity constraints



- Formerly unable to identify a "true north" measure(s) that rallies the organization to single, overall customer metric
- Development of integrated customer experience management capability to deliver and measure the customer experience Source: Accenture



- Strategic focus on Customer Effort Score
- Reduced focus on call-handle time, training to improve agent friendliness and new customer tools to empower greater visibility and control over energy usage Source: Accenture

#### ر بر بر

#### **Customer Visibility & Communication**

**Finding:** Minimal visibility into field activities or work status. Limited self-service tools available to customers; no confirmation or validation of work status or completion. Fragmented or nonexistent Customer communications for certain work types. Lack of consistent information on programs to customers.

ComEd.

- ComEd launched a full-featured smartphone application and within one year of the app's launch, nearly 60,000 consumers had downloaded it and completed more than 1 million transactions.
- Every design decision was held to the golden rule: "Can consumers achieve their goal in three clicks or less?" **Source: Accenture**



- The SDG&E Marketplace platform empowers consumers to quickly and easily shop and make informed, energy-wise product purchase decisions that help them save electricity and money.
- The platform also features incentives for energy-efficient home appliances and consumer electronics offered by third-party retailers. *Source: Accenture*

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### Pain Points and Opportunities

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### Industry examples address similar opportunities



#### Customer Expectations

**Finding:** Inflexible appointment options do not meet the customer demand. Inability to provide the customer with specific and accurate timeframes for long cycle work. Customers receive delayed bills due to issues that require manual cancel/rebills to remove late charges from customers accounts before processing payments. Lack of payment flexibility for customers. Billing issues associated with mid-month switching by customers



- Prioritization of resources for CX included the establishment of a new position, a Customer Experience Manager
- Oversight over the CE Council which helps drive and support the vision of Oncor's CE Program, Voice of the Customer Program and the utility's outage communications tools Source: Chartwell

#### ENBRIDGE

- Customer Service of the Future through organization shift
- Innovative target state approach, anchored by Customer and Service Agent Journeys examining interactions throughout various customer touchpoints *Source: Accenture*

# Q

#### Visibility of Work & Resources

**Finding:** Work initiated in multiple systems. Not all work added to a system; manual work arounds common. Work and resource statuses not visible to relevant stakeholders.



- As a feature built into its smart phone app, British Gas provides consumers with the ability to book, manage and track engineer call outs as required
- Consumers can book new appointments and specify whether they will involve an annual service check up or if they have experienced a break down
- The app also allows consumers to track how far away the service crew is, reschedule the appointment or cancel the appointment without having to speak to a service agent *Source: Accenture*

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#### **Pain Points and Opportunities** 3

nationalgrid gas business

### Industry examples address similar opportunities



### Agility

Finding: Existing technology does not provide the flexibility to adapt to changing regulatory requirements and customer demands. Relevant information not readily available to execute tasks. Customers receive delayed bills. Issues require manual cancel/rebills to remove late charges from customers accounts. Regulatory deadlines are missed by operations due to rising demand for interconnection from generators.



- Investments in digitizing, transforming and automating business processes were done to drive new levels of productivity, meet compliance, improve quality and user experience.
- The company has worked to transform the retail back office integrating BPO and AO to maximize the process efficiency.
- Hundreds of virtual robots and mini bots have been created to automate end-to-end processes, reduce average handle time and carry out prescribed functions based on rules. Resulted in cost savings and enabled the team to focus their time on higher value transactions; and increased operational flexibility to scale and to absorb additional work. Source: Accenture

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#### **Pain Points and Opportunities** 3

nationalgrid gas business

### National Grid recognizes the gaps in current customer capabilities

Capability	Basic	Advanced	Leading	Emerging
1. Customer Access To Information	•			•
2. Onsite Interactions during Work Initiation	•			•
3. Customer Interaction during Work Exception Management		•	•	
4. Customer Experience Training	<b>•</b>			•
5. Targeted Communications	•		•	
6. Customer Feedback		<b>•</b>		•
7. Responsive Web Design		<b>•</b>		•
8. Channel Preference		<b>•</b>		•
9. Work Forecasting of Customer Work		<b>•</b>		•
10. Consistency		<b>•</b>		•

The capability gaps can be addressed by considering cross-industry leading practice examples shown in the following slides.



Source: Customer Experience CAMs 9/15/16

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# nationalgrid gas business enablement

### Cross-Industry examples showcase ways National Grid can emulate best practices

Company	Capability	Approach	Outcomes
we energy	Customer Access To Information	Online account management	<ul> <li>Shift to more online account management</li> <li>Cut admin costs and reduced paper usage</li> <li>Passed the savings on as an online account management discount</li> </ul>
	Onsite Interactions during Work Initiation	Self-service tracking via mobile app	<ul> <li>Tracker is designed for customers to view the status of their order</li> <li>Viewable through the web or a mobile device</li> <li>Tracker is visually appealing and steps are easy to understand</li> </ul>
CenterPoint. Energy	Customer Interaction during Work Exception Management	Real-time outage alerts	<ul> <li>Enhancement to the company's current electric outage communications</li> <li>Power Alert Service automatically notifies consumers via text, email or phone cal whenever a power problem is detected at or near their address</li> <li>Includes estimates of when power will be restored</li> </ul>
ccenture	Customer Experience Training	Knowledge management and collaboration program	<ul> <li>Common portal across the organization for collaboration, sharing, and learning</li> <li>Integrated collaboration tools with knowledge repository</li> <li>Targeted content based on organization and geography</li> </ul>
<b>PPL</b>	Targeted Communications	Fully integrated campaigns to communicate with customers	<ul> <li>Created a number of communication tactics captured in a communications playbook and utilized to deliver a consistent communications approach</li> <li>Created a series of engaging posts and videos letting consumers know that they appreciated their patience</li> <li>Continually communicate with customers</li> </ul>
	Customer Feedback	Capturing the voice of customer	<ul> <li>Listening posts capture real customer comments and concerns in all channels</li> <li>Customer Experience team involved stakeholders in the design process, using immersion techniques and personas</li> <li>Stakeholders across the organization become customer experience designers</li> </ul>
<mark>∖</mark> vagl	Responsive Web Design	Digital platform transformation	<ul> <li>Responsive, device-optimized presentation</li> <li>Tailored and targeted content for sales and service</li> <li>Streamlined and consistent experience</li> <li>Single platform, which is agile</li> </ul>
FPL	Channel Preference	Personalized account management	<ul> <li>Enables personalized contact and communications settings</li> <li>Simple and intuitive interface design with logical grouping of preferred alert types</li> <li>Choice of notification frequency, delivered to customer's preferred channel</li> </ul>
Zocdoc	Work Forecasting of Customer Work	Enable customer appointment scheduling	<ul> <li>Online medical care scheduling service which integrates medical service information and doctor availability</li> <li>Select specific service, doctor and time based on customers availability</li> <li>Ability to cancel or reschedule existing appointments</li> </ul>
PGE	Consistency	Customer experience consistency	<ul> <li>Consistency in the experience across web and call-in</li> <li>Reduce call volume from call-backs</li> <li>Increase first call resolution</li> </ul>

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# national**grid** gas business enablement
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# 4 Leading Practice Examples

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# **Customer Access To Information**

# Ovo Energy - Energy provider focused on trust and simplicity

"We like to play fair at OVO; when we save, you save. That's why we give you a discount if you manage your account online.

By managing your account online we can cut our admin costs – and save a lot of paper. It's good news all round, especially as we pass the savings on to you as an online account management discount.

At the moment, the online account management discount is £60 a year if you get both gas and electricity from us. If you get just one fuel, it's £30. It's paid monthly as a discount on your bill: £2.50 per fuel."





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### 4 Leading Practice Examples

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# Onsite Interactions during Work Initiation

### Dominoes Pizza - Self-Service Tracking

- Tracker is designed for customers to view the status of their order
- Viewable through the web or a mobile device
- Tracker is visually appealing and steps are easy to understand
- Increased revenue from increased customer connections and reduced time to connect





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# 4 Leading Practice Examples

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# Customer Interaction during Work Exception Management

## CenterPoint - Real-Time Outage Alerts

- CenterPoint Energy unveiled a convenient new enhancement to the company's current electric outage communications. Building on the company's current investment in smart grid technology, the Power Alert Service automatically notifies consumers via text, email or phone call whenever a power outage or other power problem is detected at or near their address
- The service includes estimates of when power will be restored and updated throughout the repair process





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### 4 Leading Practice Examples

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# **Customer Experience Training**

# Establish a Knowledge Management and Collaboration Program

- Common portal across the organization for collaboration, sharing, and learning
- Integrated collaboration tools with knowledge repository
- Targeted content based on organization and geography
- Ability to subscribe to content areas
- Leverage materials for training purposes
  ultimately building employee uptake
- How is it managed and governed?
  - Global Knowledge Management team > KM Advisory Board (KM Leads) > KM Working Groups



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## **Targeted Communications**

# **FPL** - Communications

### Activity

- · FPL realized that a joined up communication strategy and approach for interacting with customers was required
- · FPL identified the efficiencies which could be realized by deploying fully integrated campaigns to communicate with customers



\*Florida Power & Light Company, is a Juno Beach, Florida-based power utility company serving roughly 4.8 million accounts and 10 million people in Florida

### **Outcomes**

- · FPL have created a number of communication tactics which can be found in a communications playbook and utilized to deliver a consistent communications approach as well as deal with ad-hoc requirements
- · During the recent Florida storms, FPL created a series of engaging posts and videos letting consumers know that they appreciated their patience with recent outages and thanked them for working in partnership
- · FPL continually communicates with customers regarding the value of their electricity and how it continues to be one of the cheapest. This is particularly effective when identifying advocates for rate case changes

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### **Customer Feedback**

### Credit Suisse - Voice Of Customer

### Activity

- Listening posts capture real customer comments and concerns in all channels
- Customer Experience team involved stakeholders in the design process, using immersion techniques and personas
- Stakeholders across the organization become customer experience designers

# CREDIT SUISSE

\*Credit Suisse is an international bank that provides companies, institutional clients and high-net-worth private clients worldwide with advisory services, comprehensive solutions, and innovative products.

### Outcomes

- Board and other leadership participate in the programs which simulate various segment customer experiences (e.g. one board member experienced the difficulty that some elderly customers have in doing some simple tasks)
- New Client Insight Management (CIM) team was tasked with driving customer centricity, and providing the customer experience team further reach into the bank to increase credibility with customers
- Ongoing collection and analysis of customer behavior patters is acquired through direct customer feedback across all channels. This helps Credit Suisse identify problems, track results and design improvements to the customer experience

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### Responsive Web Design

### AGL - Digital Platform Transformation



## Before

- Uniform display across devices
- One-size-fits-all content
- Inconsistent experiences across 47
  sites
- Disparate platforms
- Limited digital marketing and analytics capability



## After

- Responsive, device-optimised presentation
- Tailored and targeted content for sales and service
- · Streamlined and consistent experience
- · Single platform, which is agile
- Robust behavioural data to drive segmentation and campaigns

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### Leading Practice Examples

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# Channel Preference

## Florida Power & Light – Account Management

- Florida Power & Light enables customers to personalize their contact and communications settings. The interface design is simple and intuitive with logical grouping of preferred alert types.
- Customers are able to choose notification frequency, delivered to their preferred channel.
- Communication preferences include Account Alerts (payments, disconnects), Maintenance Alerts (planned outages), Special Updates (energy-saving tips, rate changes).

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### 4 Leading Practice Examples

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# Work Forecasting of Customer Work

# Zocdoc - Enable Customer Appointment Scheduling

- Online medical care scheduling service which integrates medical service information and doctor availability
- Select specific service, doctor and time based on customers availability
- Ability to cancel or reschedule existing appointments
- Enabling customers to schedule through digital channels – creating seamless experience for customers on the go



**Transform Customer Interactions & Experience** 

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### Leading Practice Examples

national**grid** 

gas business

### Consistency

## Portland General Electric - Customer Experience Consistency

### Activity

- PGE found that it was easy to program logic into an internal calculator that took into account historical account data when estimating a deposit for a customer.
- CSRs would be able to access this via a "Calculator" that was presented on their intranet
- The Web team had more difficulty performing this calculation due to security concerns.
- The web team decided to implement a basic "table" with the deposit costs based on a simplified form of factors – this didn't take into account the customers history in the same way
- If a customer priced out the deposit cost for new service on the web and then called in, the amounts would be different
- Customers would frequently have multiple contacts to try and sort out the difference, and ultimately would go with the "lower cost" solution on the web
- PGE was at greater financial risk because the business rules internally were not followed through the self service channels

### Outcomes

New software is being implemented to address these inconsistencies and the expected outcomes are:

- Consistency in the experience
- · Reduce call volume from call-backs
- · Increase first call resolution
- Adherence to agreed upon credit and collection practices
- · Reduction in Aged Accounts Receivables



#### <u>NERI 5-3</u>

Request:

Subject: Book 7—Johnston and Connolly

Reference p. 20, ll. 8-16. Please explain why customers should be able to instantly determine the purpose and function of a service truck without asking the crew of the truck.

#### Response:

Customers call National Grid for a number of reasons when they see crews in their neighborhood. For example, customers want to understand National Grid activities in their area to know how long work is expected to continue on the street or to know whether there is some type of service or safety issue they should know about. When customers reach out for information, they generally experience a greater level of satisfaction when they can use selfservice techniques to resolve questions or issues quickly and without repeated contact.

In particular, gas safety has had a higher profile in recent years due in part to the 2010 incident in San Bruno, California and events that followed in Allentown, Pennsylvania and East Harlem, New York. These incidents created a heightened sensitivity by customers and the general public as to the public safety considerations associated with natural gas.

At the same time, the Company's presence has increased in the communities of Rhode Island due to work performed under the Infrastructure, Safety, and Reliability Plan. When the Company's crews are working in the field, customers frequently have questions about what is going on in their neighborhood. This may cause the customer to reach out to the Company to find out what is happening.

Today, if a customer contacts the Customer Contact Center to inquire about an activity the Company truck on their street is performing, the call center representative does not have that information readily available. Call center representatives have limited visibility to the locations of field crews to efficiently respond to customer inquiries. The customer call often results in a number of interactions within the business to address the question. For example, the call center representative would contact the dispatch group first, but the dispatchers currently only have visibility to the location of customer meter service technicians and crews performing leak repairs. If the location of the referenced activity does not match the location of one of the local supervisor or crew leader, to confirm the activity and details to be able to respond to the customer inquiry, which could come from the field supervisor or the original call center representative. The timing to research, verify, and respond back to the original inquiry can vary depending on the ability to connect with the different groups. The result is frustration for the

customer that can lead to multiple inquiries for a response and distraction for a number of employees tasked with responding to the original inquiry.

#### <u>NERI 5-4</u>

Request:

Subject: Book 7—Johnston and Connolly

Reference p. 21, ll. 5-11. Please provide empirical data explaining the before and after conditions associated with the following statement: "Implementation of the Gas Business Enablement Program and the establishment of an enterprise-wide Work Management, Asset Management, and Customer Enablement system will result in the upgrade of gas and customer processes conducted by the Company to perform day-to-day operations. The new systems will provide more complete data capture and enable associated data reporting; eliminate over-reliance on paper records; create greater visibility of work requirements; and improve the effectiveness of field work and customer interactions."

#### Response:

The Pre-Filed Direct Testimony of Company Witnesses Anthony Johnston and Christopher Connolly discussed the functions and activities that could be improved with implementation of the Gas Business Enablement Program. It is important to note, however, that, from an overall perspective, the Gas Business Enablement Program is designed to put in place three interrelated systems that assist in performing core distribution functions, which are: work management, asset management, and customer enablement. These three systems are generally utilized by all utilities to conduct operations and provide service to customers and are routinely upgraded and/or replaced to improve the efficiency and effectiveness of operations.

At the time the legacy systems were implemented, the technology solutions comprising those systems were state-of-the-art, enabling greater efficiency as compared to prior practice. Over time, the legacy systems served as critical tools in delivering efficient, safe, and reliable service to customers. However, these systems have reached the end of their useful life. Therefore, implementation of new, replacement systems to conduct the core functions of work management, asset management, and customer enablement is necessary. As in the past, completion of the Gas Business Enablement Program will deliver a range of business and customer benefits across a number of areas, as the new technological solutions will enable greater efficiency, productivity, and customer service as compared to past capabilities. Below, the "before" and "after" capabilities available through implementation of upgraded systems are identified in relation to each of the three core systems comprising the Gas Business Enablement Program. Current limitations and new capabilities are also identified in relation to data management and training, which are processes that underlie all three of the Company's core functions of work management, and customer enablement.

### Work Management

<b>Opportunities and Challenges</b>	Capability Aspirations
Field workers are not always aware of all mandated work due at a given address or street	Ability for the dispatcher and field worker to see all pending work at a location
During gas outages, we are not always able to quickly identify which customers are impacted, and which customers have been restored	Our dispatch system will have all service information available to generate meter "off" for safety and meter "on" for restoration
Data collection and Regulatory Reporting capabilities vary by region, making consistent reporting a challenge. Additionally, new report requests require technical programmer time that delays delivery	All regions will be collecting information in a standard manner, which then populates one reporting database that can generate reliable, timely, consistent regulatory reporting
We would like to meet all customer expectations regarding Customer Appointments	Standard systems in all regions, availability of real time status of all field staff, map locations for all work, street level routing will provide more effective scheduling tools
Field supervisors spend additional time in the office to perform tasks such as reviewing map updates, approving timesheets	Field supervisors, with access to the systems remotely, will spend more time coaching and counseling for safety and efficiency
Assignment of First Responders is based on last known location based on field laptop timestamps	New systems allow dispatchers to see REAL- TIME location and staff of field workers to determine the most appropriate choice of first responder

#### Asset Management

<b>Opportunities and Challenges</b>	Capability Aspirations
Current mapping system does not include all	New mapping system will include updated land
service lines. Accuracy of asset location within	base and conflation of assets along with service
mapping system relative to street centerline,	information being made available within the
and land base needs improvement.	application.

Asset information is currently stored in various non-integrated systems with no ability to quickly reference a "map view" of gas assets. Relating maintenance and inspection data to assets is manual and time consuming. Field work is currently managed in separate systems, limiting our ability to manage multiple crew types in a single view.	New Enterprise Asset Management System will become the one location for all work activities, including maintenance and inspection, and associated data to exist.
Current design tools are outdated and not standardized. Difficulty in creating accurate job estimates as a result of non-integrated systems.	Implementation of a standard tool for design work and standard process will create consistent construction designs.
Data analysis to support integrity management programs are largely manual and inconsistent across asset classes (i.e., Distribution, Transmission, and Pressure Regulating Facilities).	New Enterprise Asset Management system will become the one location for all work, including maintenance and inspection, and associated data to exist and allow for analytical tools to analyze data.
Portfolio management of investment projects is largely a manual process, requiring input from various non-integrated systems. Difficulty in monitoring current projects regarding level of completion, and cost variance to estimate.	Implementation of an Asset Investment Planning and Management tool along with integration to Enterprise Asset Management will provide a single view of planned and in-progress work.

### **Customer Enablement**

<b>Opportunities and Challenges</b>	Capability Aspirations		
Our customer service appointment windows are not optimized to serve our customers.	Improved scheduling capabilities will allow the potential for customer appointments for more work types and potentially a reduction in customer appointment windows providing the opportunity to save time for customers.		
Our customers do not receive appointment confirmations or work progress updates via their communications channel of preference (email, call, and/or text)	Ability to receive appointment confirmation and/or reminders, updates on status, identify the level of communication wanted and/or update their communication channel preference		
Our customers have little or no self-service options to request or monitor field work.	Ability to schedule/change appointments, submit photos, view crews in the vicinity, and/or track progress of work		

Our call centers have limited view of field activities	Ability to view status of work requests, provide real time updates, and reach the field worker if needed
Our call centers have no view of construction activities	Ability to view crew location in the customer vicinity and determine status of work
All employees have limited view of customer contacts, interaction, and history in one place	Full 360-degree view of the customer and their entire history
Customers that own multiple properties receive multiple uncoordinated communications and requests for access	Ability to bundle appointments, select communication preferences, and/or receive alerts about issues at properties

### Data Management

Opportunities and Challenges	Capability Aspirations
	Ability for employees to easily access gas operations data (archived, historical, and current data) for reporting capabilities.
spending too much of their time gathering, consolidating, and cleaning data from multiple sources.	Ability for employees to improve asset (including geospatial data) and work order data accuracy to improve our asset management strategies.
	Ability for employees to more effectively manage data from creation to completion by improving digital record- keeping.
Field Crews inaccurately or incompletely document work performed	Ability to increase work completion data quality by implementing electronic validation rules on work completion data entered and attaching photos of completed work.
Mandated work currently managed through spreadsheets to meet compliance deadlines	Ability to view all work in one system and prioritize/bundle according to location, work type, customer appointment, compliance deadline, etc.
Limited integration with work plans from different departments	Ability to schedule customer work (CMS) and improve customer communication in conjunction with Construction and Maintenance work (C&M).
Field records need to be more readily available electronically in GIS	Ability to capture work completion data (main locations, service locations, etc.) electronically and reduce time to get field data into GIS for viewing.

Unique processes and data due to different systems in different jurisdictions	Having a standard suite of systems allows for consistent processes and consistent information collected and reported.
Work Standards and Procedures need to be more easily accessible by Field Crews	Ability to provide training and job aids such as video- based training on mobile devices.

### Training

Opportunities and Challenges	Capability Aspirations		
Training is operator qualification focused rather than competency focused. Underfunded relative to industry benchmarking.	Separate operator qualification training from technical training. Fund Training Academy appropriately to develop and deliver needed training.		
Learning councils had been ineffective in aligning training to business needs.	Align training to business needs via new governance model.		
Training materials not always up to industry standards (currently developed by instructors).	Build rigorous/repeatable curriculum design, development, and measurement process. Emphasize hire to retire approach: new hire, OJT, refresher. Company developed training shared with and used by contractors.		
Ineffective implementation of 70/20/10 training model (on-the-job training (OJT), coaching/mentoring, and classroom training) leading to unmeasured and inconsistent training results.	Implement structured OJT/coaching with updated curriculum Extend training into the field where it's measured and tracked electronically		
Limited use of technology in training. Management and reuse of materials is costly/inefficient and limited/no access for students to training or supporting materials.	Improve use of existing/ implement new technologies such as content development/management, virtual learning, training effectiveness, and records.		
Difficulty hiring and retaining qualified instructors.	Instructor excellence program to provide tools, resources, and opportunities to grow.		

#### <u>NERI 5-5</u>

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Reference p. 23. Please detail the outcome-based metrics associated with the gas customer experience investments.

#### Response:

Gas Business Enablement is expected to deliver the customer benefits listed below. The Company expects that delivery of these benefits will be evidenced through customer satisfaction and employee-engagement scores, as the program is implemented in each jurisdiction.

- <u>Enhanced Customer Information</u>. Increased information will be available to customers from the Company's call center representatives, who will have more information on field activities, such as the status of customer-driven work requests or the locations of field crews.
- <u>Self-Serve Information</u>. Customers will have the ability to access more information without the need to call the call centers through self-service routes, which will enable quick and convenient provision of information. The Company's website and customer applications will provide this enhanced functionality.
- <u>Appointment Booking</u>. An enhanced ability to book appointments for work will exist, as appointment availability will be linked directly to resource capacity and a scheduling engine as compared to the manual process today.
- <u>Appointment Management</u>. The flexibility to manage appointments either through the call center or directly through self-service channels will be developed. Because the appointments will be linked to actual availability, it will be much easier to re-schedule appointments in real-time.
- <u>Customer Notifications</u>. Improved customer notifications from the Company will be available in relation to work that is being completed, including providing the name(s) of the technician(s) performing the work. These notifications will keep customers informed of the status of work, particularly when there is an unforeseen delay, and will also provide them with enhanced security as they will know who to expect from the Company.
- <u>Appointment Windows</u>. Potential for more appointment windows and reduced timeframe for current 4- and 8-hour customer commitment windows through the enhanced scheduling platform.

#### <u>NERI 5-6</u>

Request:

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Reference p. 39, ll. 5-8. Please provide indicative and comparative data to provide perspective to the comment on the number of customer service requests that National Grid receives, broken out by jurisdiction.

#### Response:

Jurisdiction	Operating Company(s)	Approximate Annual Appointments Dispatched	Average Appointments Per Day	Percentage
RI	Narragansett Electric	23,400	90	3.7%
RI	Narragansett Gas	22,000	85	3.5%
MA	Massachusetts Electric Operating Companies	99,000	381	15.7%
MA	Massachusetts Gas Operating Companies	168,500	648	26.8%
NY	Niagara Mohawk Power Corporation (NMPC)	2,500	10	0.4%
NY	The Brooklyn Union Gas Company (KedNY)	252,800	972	40.2%
NY	KeySpan Gas East Corporation (KedLI)	60,800	234	9.7%
		629,000	2,419	100%
Notes:				
1. NMPC only includes two-hour appointment windows.				
2. Average ap	pointments per day is based on five day work week	over 52 weeks (26	0 working days)	