

THE WHITE BOOK OF..

The Next- Generation Service Desk

The definitive guide to
building a Service Desk
for the digital era

shaping tomorrow with you

FUJITSU

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Preface

Building a Service Desk fit for the digital era

The white book of the next-generation Service Desk is the seventh installment of Fujitsu's white book series, which delivers practical, forward-looking guidance to enterprises on how they can transform the support they provide to meet the needs of the digital age.

The changing role of IT

For many organizations, the rapid rise of digital has pushed IT to the top of the corporate agenda – transforming it from a cost-center to strategic enabler. Across industries, businesses are using emerging technologies to transform their business, move from product-based to service-based models, and respond quickly to new trends in the marketplace. Without a high degree of digital dexterity, today's firms simply cannot compete.

Heightened user expectations

And, just as the role of IT has increased, so have employees' expectations of IT support. Businesses today face a stark reality: employees are having fantastic experiences with the technology they use in their personal lives, but this isn't always matched in the workplace. Initiatives such as "bring your own device," "choose your own device" and "corporate-owned, personally enabled" are one way in which employers are seeking to address staff dissatisfaction with technology – but this is only a partial solution.

Organizations must also provide staff with the same standard of IT support that they receive with consumer IT. For the Service Desk, this poses a unique challenge. How do you deliver an outstanding user experience in an increasingly complex IT environment, where people work at any time, in any place, and on any device?

Our experience shows that there are a number of ways in which the service desk must evolve to meet the demands of today's users:

- **Provide an omni-channel service.** This means allowing employees to access IT support through their preferred channel, wherever they are and whatever device they are using.
- **Become genuinely end-user-centric.** The Service Desk must deliver a personalized experience that reflects the employee's role and capability, and empowers them to use IT effectively in order to achieve business targets.

- **Shift from being reactive to proactive.** Rather than responding to issues flagged by users, the Service Desk should use cloud technology and advanced data analytics to identify and mitigate issues before they become widespread.
- **Identify new ways to create business value.** Instead of focusing on cost savings, the Service Desk will increasingly be expected to identify new ways to improve the customer experience, boost innovation and drive business value.

Above all, it's clear that the role of the Service Desk is no longer simply about fixing and fulfilling. It's about enabling the people we serve: our end users.

Proactive, predictive, personal

The Service Desk has become the shop window for IT – and with this responsibility comes opportunity. Advanced machine learning and big data technologies provide the capability to transform Service Desks into a proactive function, which provides predictive, personal and dynamic insight across Service Desk activities. Indeed, it is predicted that use of autonometrics and cognitive platforms could drive a 60% reduction in the cost of IT services, enabling organizations to apply human talent to higher-level tasks that require creativity, curiosity and innovation.

We hope this book will help businesses and IT leaders on their journey toward transforming their Service Desks for a digital age: into a more proactive function that provides predictive, personal and dynamic insight across the business. As ever, we welcome your feedback and insights.

Daisuke Honda
Head of Service Desks, Global Delivery, Fujitsu

Executive summary

The Service Desk's mission is changing

Technology has moved out of the back office to become a critical business enabler. This shift is increasing the pressure on the Service Desk to provide a faster, more flexible service that better responds to the needs of users and their organizations. Meanwhile, the relationship workers have with technology is changing as consumerization has altered users' expectations of the IT support experiences they should receive at work.

Furthermore, the growth of cloud technology and shadow IT, together with initiatives such as "bring your own device" (BYOD), "corporate-owned, personally enabled" (COPE) and "choose your own device" (CYOD), means the Service Desk no longer has full control over the systems and technologies it supports.

As organisations derive increasing value from technology and continue to invest heavily, the Service Desk must develop the capability to support whatever technologies the business has chosen to use at any given point. And IT preferences are likely to change frequently as the digital environment continues to evolve.

In this report, we explore how the Next-Generation Service Desk will fulfill its new mission by harnessing emergent technologies and adopting new, innovative approaches. Concepts covered include the following:

- **The Next-Generation Service Desk will be user-centric.** The Service Desk will need to make the "user experience" its first priority. This includes recognizing users as customers and building strategies that support and enhance users' professional activities in the first instance.
- **The Service Desk will be proactive and invisible.** Rather than reacting to issues as they occur, the Service Desk will have to work harder to minimize disruption to user productivity – by anticipating and preventing IT issues in a non-invasive fashion, before they arise.
- **Intelligent use of data and analytics is essential to understand the IT environment.** Using new analytics and monitoring technologies, the Service Desk must learn to harness data from users and the wider work environment. Staff will need to interpret and link information intelligently to foresee problems and opportunities.

- **Automation is here to stay.** IT service managers have learned from past failures: automated Service Desk processes will be central to their strategies in future. As well as improving the user experience by providing an instant response to queries and issues, automation will help to lower the workload of the Service Desk and drive cost savings through reducing the need for human intervention.
- **Machine learning and artificial intelligence (AI) will be critical components of the next-generation Service Desk.** Building on the early success of virtual agents, AI and other forms of machine learning will ultimately be able to handle much of the Service Desk work volume.
- **There will always be a place for Service Desk staff.** Rather than replacing human representatives, automation will free staff from lower-level tasks to focus on higher-level functions and assume value-adding, business-facing roles. This hybrid approach will allow for a more rounded and holistic technology user experience.



Introduction: A changing Service Desk environment



"We have to cater to the whole continuum of end user. At one end of the spectrum we have 18-year-olds who are extremely tech-savvy – having been brought up with social media. At the other end we have employees who are digital novices and see IT as a way of getting by."

Steve Watt, Chief Information Officer, University of St Andrews

IT departments no longer have a monopoly on digital knowledge. Having once been confined to the back office, technology is now pivotal to driving growth in almost all areas of an organization – from resource management to sales and marketing.

"Technology is one of the few remaining sources of competitive differentiation in the marketplace," says Charles Araujo, Principal Analyst with Intellyx and Founder of the Institute for Digital Transformation. "If I don't understand how technology impacts my job and my business goals, then I'm putting myself at a huge disadvantage."

As organizations hold a greater appreciation of technology and its role in driving the business, IT departments are also having to contend with the greater digital dexterity of users. "Tech-savvy" employees are penetrating the workforce in ever-greater numbers¹, and millennials, born between 1980 and 2000², have brought with them new attitudes toward using technology.

IT must cater to the demands of a younger workforce: digital natives who are increasingly comfortable with using technology and reliant on it in their personal lives. For this growing cohort, IT support is no longer just a service but also an experience – one now measured against the ever-more sophisticated solutions they can access in the world of consumer technology.

"People expect to receive the same experiences and level of service when they come into a business environment," says Mike Matthews, EMEA Service Desk and Integrations Offering Manager at Fujitsu. "They want to access technology and services 24/7, from wherever they happen to be."

Faced with changing expectations from various sides of the business, and already under pressure to reduce costs and headcounts, the Service Desk must redesign the methods it uses to offer support to customers and understand their needs.

Users want support, but on their own terms

IT organizations have sought to empower technology users and to cater to their changing behaviors and needs. Through BYOD, CYOD, COPE and other initiatives, users have been allowed greater freedom to pick and choose the devices and software they use at work.

Furthermore, organizations are realizing that they need to adapt the way in which they deliver IT support to employees. Though still in widespread use in most organizations, traditional telephone and email-based support channels have failed to keep pace with the consumer experiences that younger audiences have come to expect in their personal lives.

"Younger audiences want to self-serve, and they don't want to interact with a human directly unless they absolutely have to," says Carey Blunt, Global Chief Architect for Service Management Tools at Fujitsu.

Araujo agrees: "As you move across the generational landscape, people are turning to their peers to solve technology challenges. They reach out to each other – they post on Facebook."

IT departments are adapting their delivery strategies accordingly. As the use of email and voicemail-based support channels have started to fall into disuse, new support options are taking their place, including social media portals, live-chat platforms and virtual assistants³. At the same time, however, IT organizations must continue to meet the needs of "digital novices" – older users who lack the dexterity and curiosity of younger workers in using new technologies.

As technology continues to evolve and the needs of organizations and their employees become more disparate and complex, the Service Desk faces a mounting challenge in trying to satisfy the demands placed on it. So how can the Service Desk ensure that it is taking the right approach to meeting today's fast-changing needs?

As technology continues to evolve along with the workforce it serves, the Service Desk has had to find new ways to resource itself and fulfill its mission. To date, these solutions have brought varying degrees of success. So how can the Service Desk ensure it has the right approach to meet today's fast-changing needs?

3. <http://www2.servicedeskinstitute.com/benchmarkingreport>

1

A new service desk mission



The Service Desk is having to make the transition from problem solver to business enabler

Technology is not only essential to the day-to-day running of organizations, but it has also become a source of competitive advantage in the marketplace. Cloud computing, data analytics and software development are increasingly forming an integral part of companies' product development and playing a key role in how companies IT service managers have learned from past failures: automated Service Desk processes will be central to their strategies in future products and services to market.

By harnessing cloud computing software and other technologies, organizations can also streamline their operations and reduce costs. As such, investment in technology continues to accelerate significantly: a recent report from International Data Corporation (IDC) projects a rise in corporate IT spending to \$2.8 trillion worldwide in 2019⁴.

Against this backdrop, the role of IT departments has become increasingly critical, helping to update and modernize legacy systems while also integrating externally developed software and applications into the workplace.

"The modern corporate IT environment is moving toward becoming an amalgamation of many different solutions," says Steve Watt, Chief Information Officer, the University of St Andrews. "A lot of our services are delivered by cloud providers. Rather than managing internal platforms, we are working with the Service Desks of various other entities."

Meanwhile, an increasing reliance on technology is placing greater demands on Service Desks and the IT departments that house them. "If you ask companies what the most critical service to keep running is, it's their email, their online connectivity," says Malcolm Fry, an independent IT service management expert. "Service Desks are having to make decisions that bear enormous consequences for the entire business. IT staff are making 50 to 60 of these mission-critical decisions a day. No other part of the business has this level of responsibility."

Clearly, the Service Desk mission has moved beyond simply overseeing and fixing day-to-day IT issues to acting as a critical enabler of organizations' technology operations and as the last line of defense for when things go wrong.

"The Service Desk has evolved from playing an IT-centric role to assuming a technology support role within the business."

Charles Araujo, Director, Principal Analyst with Intellyx and Founder of the Institute for Digital Transformation

"The 'bring your own device' phenomenon is really just a taste of what's to come – it will soon be a case of 'bring your own everything'. You now see users wanting to work with their own software and finding ways to bring this into the work environment."

Ollie O'Donoghue, Head of Research and Insight, Service Desk Institute

"In the past, the Service Desk was looked at as an IT organization that fixed problems. Now, we're being held to account on how fast we can resolve issues and the value we can bring to the business."

Mike Matthews, EMEA Service Desk and Integrations Offering Manager, Fujitsu

New approaches, mixed results

But this shift has not always been reflected in the resources and tools awarded to Service Desk staff. While technology is being put to greater use in organizations than ever before, its adoption is still largely overseen at the boardroom or C-suite level – often by those with non-specialist backgrounds⁵.

In order to contend with the changing technology landscape, organizations have developed new strategies and approaches around IT service management to give users greater flexibility and choice in shaping their experiences.

But not all of these steps have been taken with the best interests of the Service Desk or its customers in mind, and while cost containment of Service Desk operations is a necessary reality as organizations increase their technology spend, it has often been to the detriment of the support delivered to IT customers. "In the 1990s there was a lot of focus on standard SLAs [service level agreements] that looked to save time and create efficiencies, rather than focusing on user satisfaction," says Andy Mears, Fujitsu's Global Head of Technical Maintenance Services, Global Delivery. "Quite often it was a case of reducing time on calls or moving the user on, instead of focusing on the user experience or the outcome."

By overlooking the needs of technology users in the first instance, organizations stand to undermine the professional operations of employees and the wider business. By causing frustration with poor IT user experiences, they also jeopardize the retention of workers.

And while outsourcing IT service management or shifting operations overseas can offer business benefits, there is a risk that this will place further obstacles between the Service Desk and its customers. "Communication is so important," says Fola Aiyela, a senior IT Analyst at QBE Insurance Group. "The way you would talk to an IT customer in Germany is very different from the conversation you'd have with an employee in India."

More recently, strategies that focus on moving IT issue resolution closer to the organization's front line, such as "shift-left," have aimed to reduce the pressures on desks by enabling users to resolve low-level issues themselves through self-service portals. Again, these initiatives have not always been designed around the needs of users in the first instance and have faced resistance from workers as a result.

"What we've seen historically is a decision by IT departments to introduce extra functionality through a portal or a website, without considering the people who are actually using these platforms," says Fujitsu's Carey Blunt. "People want choice. There are still digital novices who much prefer to have the human contact on the phone."

Moreover, the increasing reliance on self-service portals and other modern IT support strategies may have further impeded communication between the Service Desk and end users and the exchange of information between the two. Without this direct contact, it becomes harder for Service Desk staff to understand their customers and their requirements.

From reactive to proactive

Organizations are recognizing the need for a user-centric approach to IT service management – one that positions the needs and activities of users alongside cost containment and other objectives as key priorities. "Our main concern is the end user and their productivity," says Daisuke Honda, Head of Service Desks, Global Delivery at Fujitsu. "This is core to our vision and strategy and it is reflected in the investments we make. Our goal is not to get staff away from an agent, it's to have the user mediated as quickly as possible – enabling users to access support through their preferred channels and delivering a complete and personalized support experience."

According to Karyn Jeffery, Fujitsu's Vice President and Head of End User Services for Global Delivery, the Service Desk mission when taken to its logical extension should be preventing IT issues from being allowed to disrupt the work of technology users in the first place. "This is the nirvana of shift-left," she says. Rather than reacting to incidents as they occur, the Service Desk should focus on proactive intervention, with staff using their resources to anticipate and eliminate potential issues before they arise.

In adopting more proactive and forward-thinking approaches, the role of the Service Desk can become better aligned with the core business objectives of the wider organization. Rather than simply being left to troubleshoot IT issues, the Service Desk should be recognized as an important business enabler in its own right. From helping organizations to absorb new technologies and minimize potential disruption to maximizing employee retention, Service Desks clearly have critical roles to play in their organizations' futures.

"The goal of Service Desks should be proactive intervention-monitoring potential problems and eliminating them at source rather than reacting to them once they've arisen."

Andy Mears, Global Head of Technical Maintenance Services, Global Delivery, Fujitsu

"Big data and analytics will significantly enhance the service management environment. These tools will allow IT organizations to gather business intelligence around their customers and to push the right services toward end users. IT support will become far more personalized and effective because of this."

Ollie O'Donoghue, Head of Research and Insight,
Service Desk Institute

What will the Next-Generation Service Desk look like?

The next few years look set to be a period of immense change for the Service Desk industry as the corporate IT world embraces new technologies and new approaches. **The next-generation Service Desk will...**

Offer business value through innovation

Managed services offerings that make use of autonomics and cognitive platforms will allow the Service Desk to deliver greater value – by empowering users, driving productivity and growing revenues.

The growing use of virtual assistance models offers a glimpse of what the IT user experience will look like in the future. With AI and machine-learning technology developing apace, virtual or cognitive agents will be key features of the Service Desk landscape within the next 5-10 years.

In time, virtual assistants will become the main interface with which end users interact with the online world; agents will act as proxies for human staff, providing customers with personalized and "human-like" IT support experiences.

59% of Service Desks see the use of automation as a top priority.

Service Desk Institute survey

Be proactive and data-driven

Big data technologies will allow IT organizations to develop a much stronger understanding of the technology environment as well as the needs and preferences of Service Desk customers.

The cognitive computing industry will be worth \$15.3 billion in 2019; the predictive analytics market will comprise \$6.5 billion of this.

Allied Market Research; BCC Research

1

A new Service Desk mission

By embracing predictive analytics and advanced data monitoring strategies, organizations will be able to tackle IT issues proactively and pre-emptively and in a non-invasive manner.

47% of Service Desks see increased demand for business intelligence and big data in the immediate future.

Service Desk Institute survey

Make the best use of human talent

Intelligent deployment of machine-learning technologies and autonomics will see human talent assigned to higher-level tasks that require creativity and innovation.

73% of Service Desks expect existing staffing models to change.

Service Desk Institute survey

With most basic day-to-day IT support functions undertaken automatically, Service Desk representatives will deliver value in other ways – by helping to develop intelligence around technology usage across all levels of the business.



2

Understanding users

By harnessing big data and analytics, the Service Desk can better understand users and prevent problems before they arise

To develop a proactive, user-centric approach, organizations must first work to improve their understanding of technology users. Panu Vehniäinen, Director at YIT Information Services, questions why organizations rarely attempt to understand internal IT users to the same extent as they do with their business customers.

"The more you know about the person on the other end of the line, the more accurate and efficient the solutions you can offer them become," explains Vehniäinen. "When a business customer picks up the phone to call someone managing their account, their history and profile flashes up on a screen. Why isn't this the case with our IT customers?"

As Vehniäinen underlines, viewing technology users as customers rather than employees in the first instance is a crucial first step in being able to offer them the IT support they need. If organizations lack knowledge about their IT users, it may be because their approach to gathering and harnessing user-based data has not been developed sufficiently.

According to a recent LANDesk and Service Desk Institute (SDI) Service Desk benchmarking report, only two-thirds of Service Desks currently integrate user feedback into service improvement plans, while one in ten have no method of measuring user satisfaction at all⁶.

In other cases, organizations have made the practice of capturing and analyzing user information a labor-intensive undertaking, the result of which is that Service Desks are not making the most of the information available to them.

"Some Service Desks are only harnessing a small portion of the reporting data they have available to them," says Fujitsu's Andy Mears. "Companies often have people trawling manually through vast quantities of information and reports. Desks aren't spending enough time interpreting this information, so they aren't getting the full benefit."

As Mears explains, rather than reducing the burden on the Service Desk, current practices commonly employed for measuring user data – for example manually reading user tickets and tracking user activity – can create more work for IT support staff.

"We use metrics to drive how we resource ourselves best. If we're seeing a cluster problem in a particular area all relating to Wi-Fi, is it a building-specific issue, or is it a coverage or contention issue?"

Steve Watt, Chief Information Officer, University of St Andrews

Technology can simplify this process considerably. Interactive dashboards and other Service Desk management tools can help staff to quantify desk performance, including response times and user satisfaction levels. This can help them to evaluate end-user data more efficiently – and deliver more relevant solutions as a result.

Data, data everywhere

While ticket data represents a useful resource in being able to evaluate and improve IT service delivery, many organizations are only scratching the surface of the information that is available to them. After all, retrospective ticketing data only takes into account IT issues noticed or reported by users, while ignoring the many problems that go unseen each day.

According to QBE's Fola Aiyeola, the data coming into the Service Desk will often only provide a cursory understanding of the IT issues users face and why they are occurring. "I think one of the main difficulties many Service Desks face is having this understanding of the technology environment," says Aiyeola. "It's easy to see that someone has a problem with a device or a piece of software, but no one is asking the deeper question – why the issue is occurring in the first place."

Andy Mears believes that organizations should be taking advantage of the wider environmental data available to them. "We have access to machine data, and we have the environmental data around it," he says. "We also have social media data, historical data and repair data. We need to be capturing this information, interpreting the data and time-stamping it, and then linking it all together."

Increasingly, IT organizations are starting to take advantage of new data monitoring and analytics technology to gain a richer understanding of the work environment and the needs of end users. Patricia Carrusca, Project Manager, Service Desk Line of Service at Fujitsu, outlines how the company is monitoring technology users and drawing conclusions from the findings. "All user devices are connected to the network and therefore their systems can be monitored for their benefit," she explains. "These tools allow us to measure users' experiences with the network, devices and applications, allowing us to troubleshoot and actively work on prevention."

By grouping user data, Service Desks can create economies of scale, creating solutions and strategies for the wider workforce rather than simply resolving individual IT issues. This involves linking data on individual user behavior to gain a rounded picture of the end-user experience, including how recently introduced and externally sourced technologies are interacting with the work environment.

"We are able to monitor the workplace's baseline performance over a longer time period to see the impact of changes to the organization's technology infrastructure," says Ivar Fennema, Senior Solution Architect at Fujitsu. "We can make general recommendations for hardware upgrades or replacements based on actual user requirements."

By grouping user data in this way, organizations can gain insights into user behavior that are both broader and more in-depth.

New knowledge, new powers

As analytical technologies evolve and become more widespread, they will enable Service Desk staff to work with user data in a more proactive and extrapolative way. "Service Desks won't need to spend time interpreting data," says Fujitsu's Andy Mears. "They will have machines that can interpret it for them."

Introduced skillfully, analytics will support the Service Desk to become user-centric and in its role as a technology enabler. A greater understanding of how users interact with technology in the workplace will help organizations to absorb externally sourced software and applications into the workplace more smoothly, with fewer complications and disruptions to employees' productivity.

However, analytics and data monitoring tools are ultimately only as good as the individuals using them, and Service Desk staff will need to become better skilled at harnessing these resources. "The roles of Service Desk professionals will need to change," says Patrícia Carrusca. "They'll need to be able to work with prediction and analytics in a different manner compared with the work the reporting team does in analyzing information."

The Service Desk will undoubtedly need to learn to harness big data and analytics if it is to gain a superior understanding of the behaviors and needs of IT users. But investment in technology alone is not enough. The Service Desk must also develop its human capital – to empower staff to draw maximum benefit from the information around them and deliver greater value to organizations and their employees.

3

The proactive Service Desk



The Service Desk must find new ways to understand technology users and anticipate their needs while minimizing the risk of IT failure

Promoting effective knowledge exchange is an essential first step for the Service Desk in understanding technology users. As a first step, organizations must ensure they have the right communication channels in place to cater to an increasingly digitally aware, but also diverse, customer base.

Taking a cue from the consumer world

Organizations should take inspiration from the "omni-channel" strategies of today's consumer brands, which use social media and instant messaging to connect with their customers wherever they are⁷.

Many are starting to do so: "We are now seeing a move toward richer communication platforms such as Skype, Google Hangouts, and even WhatsApp and Twitter," says Ivar Fennema. "These technologies are extremely intuitive to use, and are easily integrated into the existing support infrastructure."

Indeed, excellent integration strategies are key to overcoming the cultural challenge of introducing workers to new user communication and support channels. Fujitsu's Karyn Jeffery references the approach taken by energy management company Schneider Electric, which has used the company's existing social media platforms to deliver new IT support services. "It's much more intuitive for them," she says. "They are using something that already looks and feels like it belongs to the organization."

As well as existing consumer applications, professional communications software such as Skype for Business is being developed specifically for use in the Service Desk context. Among their many advantages, these channels can be employed by Service Desk staff to coach users in how to use applications and devices more effectively.

Fennema believes that video tutorials are replacing manuals and other text-based information as a way to disseminate IT knowledge. This multimedia strategy can help the Service Desk to disseminate information quickly and to a wide audience. And Service Desks will often share this information freely online for the benefit of users in external organizations, which can transform their organization into a "knowledge expert" – mirroring the consumer world's trend toward peer-to-peer knowledge-sharing.

"We're currently working on improving our knowledge-base materials. The aim is to raise the intelligence of our workforce around IT usage; if we can empower users to solve their own problems it can deliver enormous benefits in terms of time and cost savings."

David Dauphinais,
Service Delivery &
Business Infrastructure
Manager, Saint-Gobain
Technology Services

7. <http://www.destinationcrm.com/Articles/CRM-News/CRM-Across-the-Wire/AMC-Launches-Contact-Canvas-Omni-Channel-for-Microsoft-Dynamics-CRM-113077.aspx>

"There is tremendous scope for using predictive analytics. It means being able to take a body of incidents and get to the root cause of the problem. You then have the basis for making a number of corrective actions. Eventually you take away the issue altogether."

Neil Archer, Head of Enterprise Service Management, British American Tobacco

There is still, however, a place for face-to-face communication within the communications mix. Indeed, the "walk-up" helpdesk has proved successful in many organizations, with around 10% of Service Desks having integrated this idea into their omni-channel strategy, according to the LANDESK/SDI survey⁸. Again, this development has its roots in consumer technology trends – most notably Apple's Genius Bar.

While the introduction of walk-up desks may appear to go against the grain of organizations seeking to introduce high-volume and low-cost IT support portals, it can complement the Service Desk's offering in a number of ways. According to Fujitsu's Patricia Carrusca, the walk-up desk can act as a guide to IT customers that helps them to make the most of the technology available. She also expects organizations to continue to introduce human interaction as part of a hybrid approach that includes a variety of digital channels. This will include offering face-to-face IT support through initiatives such as the roaming Service Desk.

By offering users a range of communication options and making IT support interactions as easy and intuitive as possible, organizations can maximize take-up from users and the flow of information between employees and Service Desk staff.

Prevention rather than cure

While excellent communication is critical to understanding the needs of Service Desk customers, more also needs to be done to anticipate and pre-empt the technological challenges users face in their day-to-day working lives.

Retrospective analytical systems and monitoring are already in place in many work environments. And now, organizations are turning to predictive analytics and sensors in order to foresee how and where IT issues will occur. Though still embryonic in the Service Desk industry, these technologies offer great potential for fostering a user-centric approach.

Ivar Fennema believes that the internet of things (IoT) will prove to be an exciting development for Service Desks. "One area where the IoT will definitely be of benefit is improved CMDB (configuration management database) data quality and automated tracking of inventory," he says. "It will also allow Service Desks to pinpoint issues before they are noticed or reported by the user."

3 The proactive Service Desk

Used this way, technology can help the Service Desk to develop a fuller picture of what is happening and what is going wrong. This proactive approach can vastly reduce the likelihood of IT incidents and, more importantly, minimize the disruption to users' work.

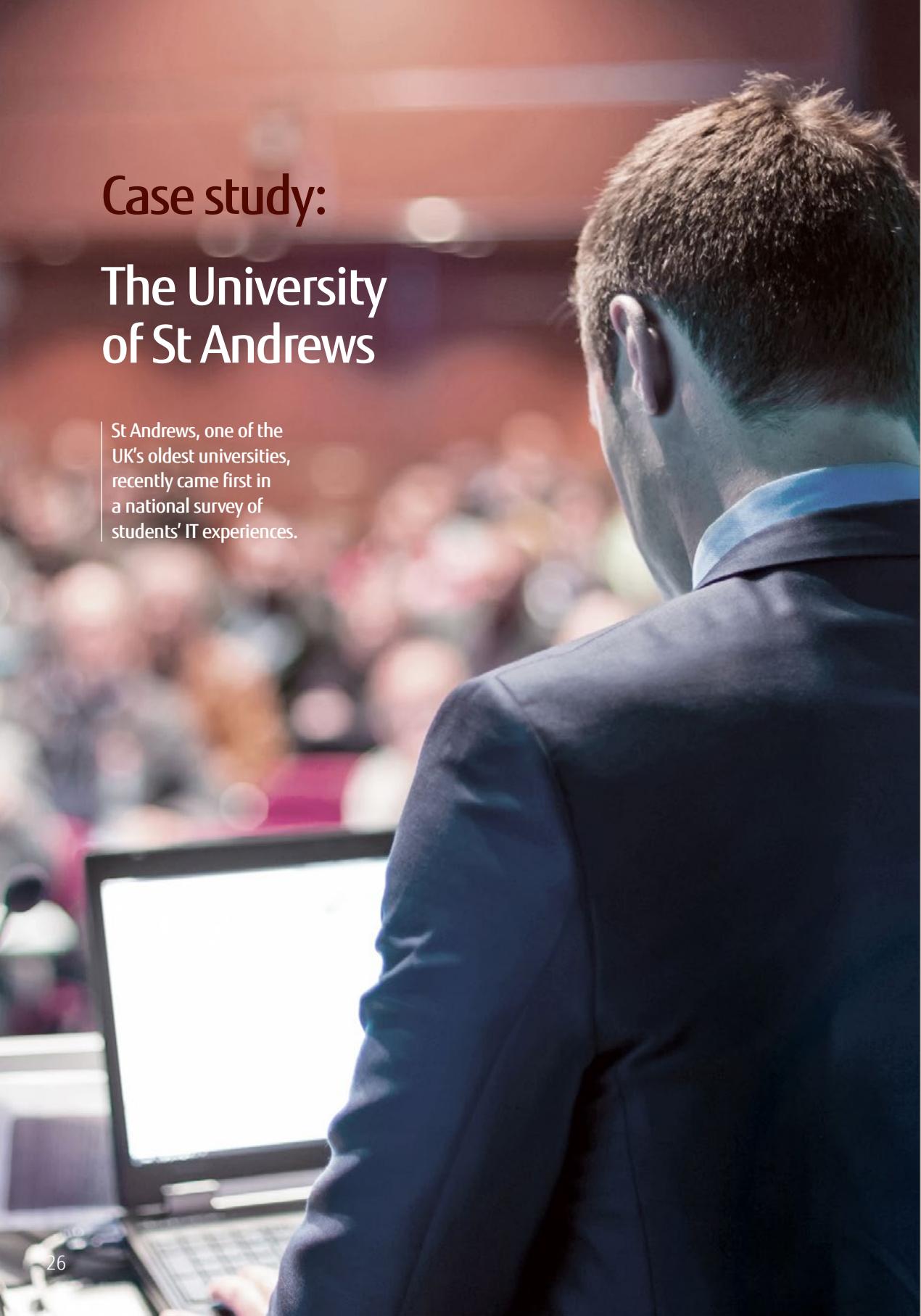
According to Fujitsu's Andy Mears, predictive analytics can allow the Service Desk to become "invisible" to the people it serves. "We can start recognizing the events that will lead to a failure, and we can intervene before we see the failure occur," he says. "From a user point of view the service becomes invisible. To draw a comparison with the consumer world, I used to have to update the virus software on my laptop every month. Now that's done without me even knowing."

A more extrapolative and less invasive approach to IT service management clearly offers significant benefits for both parties. In becoming "invisible," the Service Desk can help organizations to function more smoothly, while reducing its own time investment in resolving day-to-day technology issues. This will allow the Service Desk and its staff to focus their efforts elsewhere.

Case study:

The University of St Andrews

St Andrews, one of the UK's oldest universities, recently came first in a national survey of students' IT experiences.



The roaming Service Desk

An increasingly complex IT landscape within universities has forced the IT Service Desk team at St Andrews to come up with new ways to meet the needs of an increasingly tech-savvy student population, as Steve Watt, the university's Chief Information Officer, explains: "The Service Desk needs to be more than just a ticketing office. Students are performing a lot of technological processes themselves and trying to resolve their own problems. The kinds of services they need are vastly different from those they needed ten or even five years ago."

According to Watt, the Service Desk should serve as a form of "quality-control agent," which can oversee and monitor the activities of users, provide assistance and offer alternative solutions. This makes it essential to gain a robust understanding of end users, their needs and their behaviors. To gain this insight, St Andrews' IT department is moving out into the student community by offering a "roaming" IT service.

"At the start of a new term, or whenever there is a significant change to the system, we take the Service Desk out into the population centers of the student body," explains Watt. "It's far more of a proactive approach than just handing out a telephone number and waiting for people to load a ticket in a few weeks' time. We offer an on-demand, fast-response service with a quick turnaround – we're not waiting for people to come to us."

The idea of embedding IT professionals in the user community is the epitome of an end-user-centric model. It is based around facilitating users' lives to the greatest extent possible. "We want students to come here and spend most of their time learning and developing their knowledge in a particular area," says Watt. "Not dealing with IT issues."

4

The role of automation



Implemented skillfully, automation increases user satisfaction while liberating Service Desk professionals to focus on more complex tasks

Automation will be integral to the workings of the next-generation Service Desk. If harnessed in the right way, it can transform the work of the Service Desk and its customers.

In the past, automation strategies have not always gone hand in hand with a proactive or end-user-centric approach. Self-service portals and other automated services have often been introduced in a prescriptive fashion as part of a wider organizational remit. They have generally gained limited traction as a result, with only 34% of IT organizations currently relying on self-service portals as part of their Service Desk strategy, according to Gartner⁹.

Automated and end-user-centric

While cost reduction and other priorities will continue to drive adoption of these technologies, to truly add value to organizations automated Service Desk processes must be focused on the needs of technology users in the first instance.

"Services need to be developed around the users," says Fujitsu's Mike Matthews. "We should be trying to better understand his or her role. What are they doing while they're at work, and how can we make those activities smarter and more efficient?"

Fujitsu's Carey Blunt agrees that IT customers should provide the starting point for introducing automated processes. "The best automation experiences are the ones that focus on the specific tasks that get done the most," he explains. "There's a lot of talk around building servers, for example, but how many servers are actually built in an organization compared with how many passwords are reset each day? Some of the best automation activities are those that are really close to the bulk of end users and what they're really looking for."

9. <https://www.gartner.com/doc/3073529/it-selfservice-strategy-driven-business>

"Traditionally, the enterprise IT sector hasn't had the same drive to introduce new technologies as the consumer world, but that's changing. Organizations are looking to Amelia and they're looking at other developments to see where they can add value. There's a real desire for change."

Ollie O'Donoghue, Head of Research and Insight,
Service Desk Institute

By knowing where automation can truly add value to the lives of users, IT organizations can maximize their investment in technology. By developing service options around what customers want and need, organizations can overcome the "cultural challenge" of introducing automated portals and minimize pushback from users.

Using this understanding as a building block, IT organizations can start to push the boundaries of automated technologies and begin to channel them in a more proactive way. "There are two types of automation," says Blunt. "There is automation that is instigated from a manual contact or request, so it's reactive. Then there could be automation driven proactively, from something discovered or understood."

Indeed, rather than purely facilitating resolution of day-to-day IT challenges, the next generation of automation technologies will look to focus on anticipating and eliminating user IT issues in a proactive and non-invasive way.

A new age for automation

In this respect, the full potential of Service Desk automation is only now starting to be realized. As we enter the second machine age, IT organizations are becoming bolder in their use of technology and automation.

A recent development has been the introduction of virtual-assistance technology on the Service Desk, mirroring an innovation that has proved highly successful in the consumer world¹⁰. According to the LANDESK/ SDI survey, the use of virtual agents or live-chat platforms in a Service Desk environment doubled between 2011 and 2015¹¹.

The embracing of virtual agents by both IT departments and users owes much to the fact that they can replicate many of the basic support functions provided by Service Desk staff, while providing a much more personal or "human" user experience compared with self-service portals. A recent study by Nuance suggests that virtual assistance technologies are vastly preferable to IT customers than static web platforms¹².

The use of virtual assistance technology has much further to run, however. The "game changer," as Fujitsu's Karyn Jeffery describes it, will be having

10. <http://www.cbronline.com/blogs/cbr-rolling-blog/the-rise-of-the-virtual-agent---why-youll-want-to-talk-to-a-machine>

11. LANDESK and SDI Benchmarking Survey 2015

12. <http://www.nuance.com/company/news-room/press-releases/NinaWebSurvey.docx>

AI agents will be able to self-learn and anticipate and resolve a wide range of end-user issues.

Fujitsu's Daisuke Honda believes that virtual assistants will eventually become the principal interface for IT users in the workplace: "They will not only be capable of answering user queries, but they will also be able to act as proxies for Service Desk representatives, accomplishing tasks for them and presenting questions to customers in return."

As virtual-assistance technology evolves, machine-learning solutions will become important agents in allowing IT departments to adopt a more proactive and user-centric approach. "AI and machine-learning technologies will be able to help identify and resolve issues automatically," says Ivar Fennema. "Or even prevent them proactively."

Fujitsu's Social Command Center, an example of a next-generation Service Desk, already uses virtual assistants to deliver a seamless user-centric experience. Using a combination of AI and natural language processing, the assistants are able to instantly remember the user's skill set, recognize their device and recall previous requests.

Gartner predicts that, by 2017, organizations that make use of autonometrics and cognitive platforms will be able to achieve a 60% reduction in the cost of running IT support services¹³.

AI and humans: a hybrid approach

To be sure, machine-learning technology is likely to displace human representatives from lower-level support tasks, and especially those which are commonly outsourced by IT departments to external providers.

Daisuke Honda believes that the introduction of new technologies will liberate Service Desk professionals to focus on more higher-level tasks and develop a more proactive and business-facing outlook.

"A live-chat service that's supported by automation can deliver a richer end-user experience. Users get to interact with the desk in real time and the process feels a lot more human than logging a ticket and waiting for a response. Furthermore, the answers they receive are fuller and more accurate."

Neil Archer, Head of Enterprise Service Management, British American Tobacco

"The roles of Service Desk professionals will need to change. They'll need to be able to work with prediction and analytics in a different manner compared with the work the reporting team does in analyzing information."

Patrícia Carrusca, Project Manager, Service Desk Line of Service, Global Delivery Fujitsu

13. <http://www.ipsoft.com/2014/09/29/meet-amelia-new-artificial-intelligence-platform-interacts-like-a-human/>



Honda compares the inevitable flow of technology into the Service Desk environment to the retail banking sector's mass adoption of ATMs from the 1970s onward. While rendering the role of bank tellers largely redundant, ATM innovation has also led to the repurposing of humans for more complex, customer-facing or advisory roles.

In a similar manner, the Service Desk representatives of the future will be handed a new remit. Human talent will add value to the Service Desk offering, providing users with a holistic Service Desk experience – a single point of IT engagement and a hybrid of human and machine-led support. Staff will be able to act as overseers of machine-led IT support and peer-to-peer platforms. They will also act as aids to customers who require more personalized support, providing higher-level advice around selecting new devices and software.

Through leveraging analytics technology and interpreting data, representatives will also help their organizations to keep abreast of broader issues and risks surrounding the use of technology. Their role may extend to helping identify opportunities for introducing emergent and disruptive technology and overseeing its integration into the business.

"The Service Desk of tomorrow will be very much populated by problem-solvers in the widest sense," says Karyn Jeffery. "I would expect to see these people viewed as business specialists, rather than as technology workers."

Indeed, the role of Service Desk staff will need to evolve in line with the gradual transitioning of the Service Desk as it becomes a critical business enabler. In order to play this role it will be incumbent upon employees to better educate themselves in the needs of the business. Provided they can rise to this challenge, humans can continue to be a vital component of the next-generation Service Desk.

Conclusion: The Service Desk of tomorrow

A clearer picture of the next-generation Service Desk is starting to take shape. The Service Desk will continue to assert itself as a critical business enabler, playing a crucial role in delivering new, value-adding technologies to organizations as they emerge. To users, the Service Desk will offer a single source of engagement, helping to integrate and manage the IT services that technology customers consume.

However, in order to truly add value to organizations and IT users, the Service Desk must continue to adapt and improve its offering – it must strive to become both more proactive and more “invisible” in how it delivers support to customers, and be able to anticipate their future technology challenges and needs.

Taking their cues increasingly from the consumer world, organizations will need to build their IT service management offerings more closely around the needs and behaviors of technology users. While cost-reduction pressures will remain an enduring reality, organizations must rate the user experience as their first priority. They must view technology users as customers rather than as employees in the first instance, and work harder to understand their needs and behaviors.

Embracing automation and analytics

A user-centric approach should provide the foundation for incorporating new tools into the Service Desk environment. As they evolve, analytics and big data will become increasingly important resources in this respect. Replacing retrospective data-capturing tools, predictive analytics, workplace sensors and other monitoring technologies will help the Service Desk to anticipate issues and better understand how technology interacts with the workplace environment. This will allow staff to tackle IT incidents in an “invisible” or non-invasive way, and to minimize the impact of issues on user productivity.

Similarly, rather than detracting from the user experience, we are seeing automation start to play a crucial role in delivering user-centric and cost-efficient IT support infrastructures. By lessening much of the incident volume on human staff and releasing them to perform high-level tasks, automation can help Service Desks to deliver a more rounded and holistic package of IT support services.

In particular, the use of artificial intelligence, cognitive computing and other machine-learning technologies will revolutionize the way the Service Desk operates. Building on the success of existing virtual assistance technologies, these tools will allow the Service Desk to attend to users' needs in a more personal and effective way than has been achieved through self-service portals or other automation strategies. Moreover, machine learning will assist in pre-empting user issues and minimizing their impact on professional activities.

Service Desk representatives: a vital link

While technologies such as AI are set to transform how the Service Desk operates, Service Desk staff will still have a critical role to play in the day-to-day running of the desk. In being released from more mundane, day-to-day tasks, representatives will be able to focus on performing higher-level tasks and providing personalized and specialist support to users.

In time, and with the right education and training, Service Desk representatives will come to be seen as business specialists in their own right. They will be the connective tissue within organizations, helping to join the dots between organizations' technology operations and their core business activities.

To succeed in the digital age, firms must quickly adopt emerging technologies and continually recalibrate their IT portfolio to capitalize on market trends. Yet this cannot be achieved without a high degree of digital dexterity – and it is here that Service Desk representatives will deliver the greatest value. By not only helping users to get the best from their IT, but also identifying opportunities to harness technologies in pursuit of business goals, the Service Desk will complete its transition from an overhead to a profit center, and help the enterprise to stay ahead of the competition.

While the Service Desk may have further to travel in fulfilling its mission, the path its journey must take is becoming ever clearer.

"Automation will displace Service Desk staff, but it won't replace them. As they develop new skills they will cross over into other areas of the business, and the lines between the business and technology worlds will become more and more blurred."

Ollie O'Donoghue, Head of Research and Insight, Service Desk Institute

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