



Enabling a Service Desk fit for the Future Fujitsu Workplace Services

In today's fast paced always connected consumer world, things must work, first time every time! People are less interested in how things are plumbed behind the scenes they just want consistency of service and companies must now meet their diverse requirements If they are to retain their business. And if this isn't possible with one supplier, they will simply shop with someone else.

This new breed of tech savvy digital native consumers are always connected and in the know. The data they use seamlessly translates in the background into contextualized information that is relevant and provides value to them. Not only when they ask for it, but also when they need it, and often without them even having to ask for help. The World of Service is changing and it will eventually affect every single service that we use and take for granted today!

For example, consider how satellite navigation systems continually monitor the traffic and road conditions on your route and make suggestions based on your needs. They update your arrival time, whilst also suggesting alternative routes to get you to your destination at the time you had planned for.

In the future, smart ecosystems and autonomous vehicles will become more prevalent. We can start to imagine a world where every traffic light will compute checksums based on algorithms and data patterns and handshake between your vehicle and them in order to change to green, or red as you approach them based on road conditions and traffic flow.

Whilst these examples are not directly associated with business IT, the concept of making sure things just work can – and should – be translated to the business environment. Imagine having your own PA always available and never far from your pocket who is able to monitor and update your schedule and make on-demand recommendations based on the changing dynamics of your day. This will make your working and personal lives so much more effective as you always meet your deadlines, meet your friends for dinner or even arrive at your customer site in time, armed with the right materials for the next key appointment. No hassle, no fuss just seamless and efficient!

Our vision for The Digital Workplace of the Future is in perfect harmony and already synchronized to cater for these impending changes. Our vision is one of a simplified, human intelligent workplace where everything just works and is powered by data to provide much needed and personalized contextual and analytical based artificial intelligence.

It enables our customers' end users to be efficient and productive, whenever they want and wherever they are.

The concept of making sure things just work can – and should – be translated to the business environment

Contextual services and empowered users are the way forward

Let's consider some other technologies and real-life experiences that are already influencing the Digital Workplace of the Future. One of the biggest changes that we have seen thus far is an evolution in stereotypical consumer behavior and expectation. Consumers are consistently striving to find ways to simplify and automate their lives for convenience sake. For example, when we shop with online retailers, such as Amazon, we can't always guarantee that we'll be at home to receive our order.

An answer to this is the secure lockers which are now available at petrol stations, supermarkets and other easy to access locations, where consumers can collect their goods at their convenience. In this way users feel empowered but most importantly they feel instant satisfaction and gratification on their terms as they don't have to wait for a re-delivery – they simply go to the locker, input their code and instantly receive their prize!

Another great example of contextual support in many shopping centers and airport car parks can be seen if we consider the following scenario:

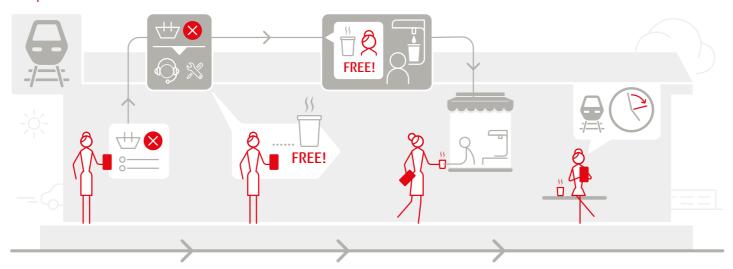
Example 1



- 1 You are about to fly off on holiday. So, online, you book your car into the airport car park. Along with some other details, you provide your car's registration number.
- As you pull up to the car park barrier, automatic number plate recognition (ANPR) cameras read your number plate. You get a personalized greeting on a digital screen. And the barrier lifts without you even having to take your hands off the steering wheel.
- 3 Later, when you leave, the barrier automatically lifts again. The experience is seamless. Just as we expect it to be.

How can we apply this kind of understanding and context to business IT? What value will it add? And how do we deliver it? Answering these questions is what Fujitsu does. The leading consumer brands absolutely understand what their consumers want and need. Business IT has to do the same. To start to see how this turns into practical solutions, let's imagine how we might extend the principle in the example above:

Example 2



- 1 A consumer is trying to buy something using her smart phone whilst on a station platform. A fault means she cannot complete the transaction. But before she has time to get frustrated, she receives an SMS message on the same device. It informs her that the vendor knows she's trying to make a purchase and is busy fixing the issue.
- A further message invites her to walk down the platform to a coffee shop for a free drink while the vendor completes her transaction.
 - Meanwhile the vendor has told the coffee shop to expect her. So, the barista gets her favorite coffee ready and greets her by name when she arrives.
- Before she knows it, the vendor has fixed the problem and completed her purchase. A final SMS tells her so. And adds that her train is running late, so she might like to stay in the café and enjoy her coffee.

This sets the bar really high in terms of contextually aware and empowered services and is perhaps, a little utopian. But again, ask yourself how this kind of contextual understanding could be used in The Future Digital Workplace.

There are many, many more examples of turning data into intelligence and using it to enhance the experience of the consumer.

Key Trends

In addition to contextual and empowered services, there are a number of significant trends – some so-called mega trends, some sociological and some purely technology-based. In the next section, we consider a few that will directly affect us.

BY 2025

Millennials are expected to account for at least 75% of the workforce by 2025

Expectation is a powerful force. When looking for their first career move, university graduates often score "coolness" high on their wish list when looking at prospective employers.

Some companies have become cool organically but not every organization has that cachet. Potential employees are drawn to employers who think innovatively, empower their users and support them in "cool and interesting" ways.

These digital natives are already very tech-savvy. Their expectations about what the business IT environment should look like are already sky high. Hence organizations that don't meet these will find it harder to recruit the best talent.

50bn

Leading industry analysts predict that over 50 billion "things" will be connected to the Internet by 2022

Let's read that again: 50 billion. This isn't just a big number. It shows the diversity of devices that require an IP address and, therefore, support for these will be much wider than it is now.

Take self-driving cars. As the occupant works away, the vehicle's systems will be selecting the best route, preventing accidents and avoiding traffic. So, that the occupant arrives in one piece, on time and with everything they need.

Just imagine how this all knits together to begin with. Once you've understood what this environment is, imagine how you would support it.

22% of the world's population are expected to be 60 or older by 2050

Perhaps a starker trend is the fact that we're living longer. Many of us have had to care, to a degree, for aging relatives and friends. But, by 2050, the number of people over 60 is predicted to account for nearly a quarter of the world's population. This means that in 20 years' time, up to 60% of us may be juggling working responsibilities with a caring role.

It's not just carers who will need flexible working arrangements, but those with family, geographical or logistical commitments.

Flexible working is expected to be the main way of working for 70% of organizations as soon as 2020. To keep pace with this change, how we deliver support must transform. The traditional Monday-to-Friday support model no longer meets the needs of flexible workers. The office is no longer the main place of work and data is being aggregated and orchestrated across public networks. So, it's just as easy to access it in the waiting room of a Doctor's surgery or a Hospital waiting room.



Virtual agents are influencing our daily lives

Many of us are familiar with robots thanks to movies such as iRobot or Bicentennial Man. However, bots or virtual agents are no longer just sci-fi. They are real, and they are influencing our daily lives.

Automation is all around and is growing, helping us provide that "it just works" life that everyone now expects.

Machines are getting smarter and that applies to a multiplicity of "things". It's not just about PCs, laptops, smart phones and tablets. Smart machines don't just self-heal, they learn about you and your behavior so they can help to plan and manage your day.

Smart machines will grow in diversity & capability

Apply those thoughts to things around you now, such as: The Sat Nav in your car; the station you always travel to work from; the hotels you stay in; even your schedule, right down to the information in your Outlook Calendar. It's all being used in smart ways now, to improve your life.

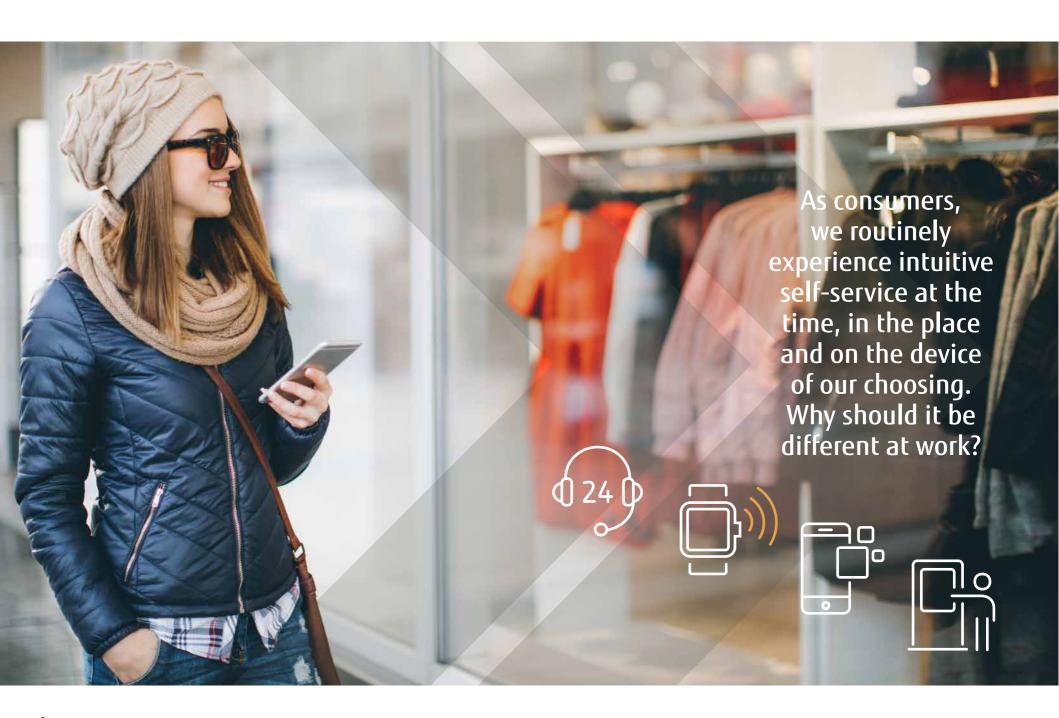
Consider then, how smarter machines in the future will grow in their diversity and capabilities. How the self-drive car you get into will already have planned your route based on traffic, weather conditions and the time you need to arrive.

By 2025, a significant number of jobs may transfer to software, robots and smart machines. Imagine the type of support these interconnected environments will require.



These are just a few of the global shifts that are transforming how we live and work. At the same time, the global population will rise – putting greater demands on dwindling resources. We'll also see more people moving to our cities. Technology will be crucial to how we respond to challenges like sustainable energy and data-led healthcare.

By understanding the impact these changes will have on society, we can predict how our working lives will evolve. With a clear image of the Workplace of the Future, we can then shape IT support so that it helps people be as productive as possible.



What will the Service Desk look like in the Future Workplace?

Introducing the Next Generation Service Desk

Unfortunately, the traditional Service Desk model falls short of the expectations of a modern worker, let alone your future employees. But the Service Desk has the capacity to be the aggregator of all services going forward. And at Fujitsu, we've already responded to these shifts in attitude and expectation by reinventing our Service Desk. The result of this redesign is the Next Generation Service Desk (NGSD) and here we list some of the key components that underpin it.



Great User Experience

Digital workers are used to great experiences when consuming services in their private lives. They choose an experience that suits their needs and preferences and reject those that don't. The Future Service Desk needs to mirror this end-to-end experience, to drive adoption. Additionally, CXOs need advocacy of their services to prevent Shadow IT. A great UX will assist with this.



Automation

Automation already surrounds us. Many events in our private lives are actually orchestrated behind the scenes, some with our express consent; some perhaps, without. The Service Desk of the past has relied heavily upon reactive manual intervention. It now has to remove low level tasks through automation, powered by AI, Cognitive analytics and standard workflow.



Intelligent Virtual Agent

Business users are used to interfacing with virtual agents and chat bots outside of work and many prefer this to speaking with a real person. In their business lives, they currently have to negotiate multiple applications to carry out the core tasks of their day jobs. Using a virtual agent as a single interface to multiple business systems is what users want.



Machine Learning

Service Desk organizations cannot sustain the high levels of manpower required to build and maintain knowledge bases and still meet their TCO reduction targets. Therefore, building, categorizing and maintaining knowledge has to be done organically, using the experience of everyday events; some support-driven and some gathered at an enterprise or machine level. Machine learning makes this possible.



Artificial Intelligence

Al is commonplace in our consumer lives. We're accustomed to YouTube suggesting new videos, based on what we have recently watched. There are many other examples of Al interpreting our behaviors and suggesting new ways of shopping or selecting products. Business users expect the same understanding when working. They don't want to answer questions about things we already hold information about



Cognitive Analytics

The evolution of cognitive technologies has moved at such a pace that some of these products are now available for use in the IT support arena. Aided by AI, workflow and other business context, it is now possible to rely on virtual agents, powered by cognitive tooling, to make informed and seemingly rational decisions on behalf of end users. This hugely reduces the need for human intervention, thus reducing costs.

How the Next Generation Service Desk works



The Next Generation Service Desk (NGSD) takes all of the key components outlined previously to provide a context-intelligent and personalized support experience. It brings together all aspects of support in a single, easy-to-use portal. It's available from virtually any internet-enabled device so people can access support the way they want.

The Next Generation Service Desk brings the Service Desk into the Digital Workplace.

It is designed not just for IT but also for many other different business tasks. Users can access it across the world, in multiple languages, any time and from any device.

The NGSD puts the user in control of routine tasks such as password resets, which account for 30% of calls to the service desk on average. This will free agents to focus on more valuable work and by decreasing the spikes in demand post-holiday or on a Monday morning, allow workforce planners to schedule resources in a more consistent way.

We built the NGSD with the user in mind. It's in tune with what they want, immediately addressing the problems they have, wherever they are. This translates into a great user experience; happier, more productive employees; and, by reducing the emphasis on telephone-based support, fewer costs.

So, is the Service Desk agent a thing of the past?

It's important to understand, despite all the benefits of this futuristic technology, there will always be a place for Service Desk staff. Rather than replacing human representatives, automation will free agents from lowerlevel tasks to focus on higher-level functions and value-adding, business-facing roles. They will be able to become more proactive, gain customer insight and contribute towards business outcomes rather than simply responding when a call comes in.

Intelligent portal

An easy-to-use, consistent user interface (UI) which provides an end-to-end support experience. We based the portal design on the principles of industry experts and validated it through customer interviews and surveys. Users can engage support and self-help via the predictive, intelligent search bar or the support categories.

Assistance for all business functions via the virtual agent

Central to the NGSD is a virtual agent (your PA in your Pocket) that you can talk to, à la Cortana and Siri, to solve problems, ask questions or complete tasks.

Offline, off-LAN password management

Users can reset their password and synchronize it back to their device, even if they are not on the domain. When they return home after a holiday (when most passwords are forgotten), even if they cannot log in locally, through NGSD users can connect with the password system and securely change their password and synchronize it back to their device. This reduces the call spike at the Service Desk post-break or on Monday mornings. It makes resourcing easier and operational life more cost effective.



Service intelligence

At the heart of the NGSD is a powerful and adaptive cognitive service intelligence layer (SI) which learns user trends to predict when they need help, based on real-time and static data sources.

The integrated portal aggregates contextual, business and personalized data streams to present a more valuable and effective user experience (UX). This leads to greater productivity, choice and satisfaction.

It draws on static and dynamic data

The virtual agent draws on static data (such as AD name or type of Windows 10 device), dynamic data (such as trending support requests or your laptop's CPU percentage) and contextual data (the answers you give to questions).

It can fulfil multiple business functions

The virtual agent can fulfil multiple business functions and alleviate users from mundane tasks. This increases their productivity.

It knows who you are

It takes into account your role, location, privileges, preferences, previous answers and more. It even learns personal details like your nickname.

Powered by AI and automation

The voice-activated virtual agent is powered by Al, automation and cognitive learning. It can support users 24/7 from anywhere and on any device.

Experiencing the Future Service Desk

So, how will the Service Desk enable organizations and their workers in tomorrow's workplace? Here we explore what a typical day in the life may look like for a selection of workers.

Non-IT worker

Let's start with the non-IT worker, who has either basic or standard IT skills or for whom IT plays a small part of their working life. Interfacing with multiple business systems, each of which has a completely different user experience, is something that historically, has driven them away from technology.

In our futuristic support world, when they do need help, support will simply be part of a single intelligent system that they experience through a virtual assistant.

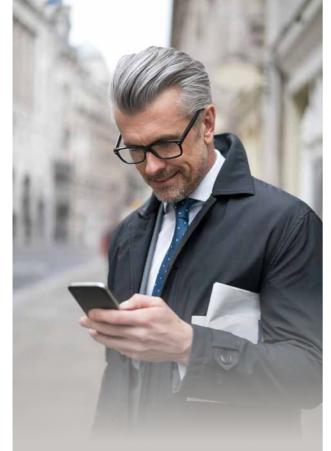
Voice-activated – for ease and speed of use – it will recognize who they are and how they like to work. And all without the need to learn any IT systems.

As a non-IT worker, not having to learn different business applications to fulfill a task, ask a question or report a fault makes using IT support a much more compelling option. Instead, this group of users can simply type questions, à la Google, or speak into a microphone.

Accessing, optimizing or fixing IT systems will be no different from planning a business trip, processing expenses or any number of administrative tasks meaning they can work efficiently.

There will be no need to learn or adopt the terminology – some might say jargon – of IT. Users will only have to ask once. If an answer is buried in a knowledge article, they will no longer be given a link to a document that they need to sift through themselves. The key information will be found and presented back in a usable form.





Mobile Workers

If you believe the forecast that flexible working will account for up to 70% of the workforce in the future, then nearly all of us may well fit within this category.

As mobile workers, we will be able to expect to draw on intuitive and contextual support even in transit or remote places and off network.

Where people do want to reach out to colleagues, they will be able to do so physically at tech bars and remotely through social forums, (like those provided by leading consumer brands); using the latter to crowd-source solutions via in-house or consumer platforms. In this way, people will experience support in the same way they do for consumer services.

CX0

For the CXO, the wider benefits of this approach will be all too evident. The implied efficiency of an automated system that learns dynamically should significantly reduce the total cost of ownership of support. Biometrics such as voice recognition and voice identification will add a layer of security and speed up the resolution of issues, helping the CXO secure company data, whilst truly facilitating anytime, anywhere.

By consumerizing business support in this way, the CXO will enhance the user experience of the organization's workers.

Apps and environments will self-provision based on the preferences and choices of the individual, leading to content and efficient employees.

There is a very important and exciting by-product of giving staff quality experiences. It should hasten the end of shadow IT, as people no longer need to look elsewhere to achieve their aims (cloud storage, purchasing "cool" devices). Counterintuitively, as corporate and personal IT become one, the CXO's visibility and, therefore, control of what is going on could actually increase.

Whatever the profile of the user, providing a single place to go for all support needs – in a familiar format, without the need to learn multiple business systems – is a compelling user experience. The implication is that they will be much more efficient because the experience is quicker and easier to consume than picking up the telephone.



Empowering your people with support on their terms

Future-gazing can be entertaining but it's much more than a diversion. It is also essential to enable organizations to plan for what is on the horizon and for what is waiting to appear.

However, understanding the impact of the future once you have seen or predicted it, becomes the key towards building your support vision. Understanding where technologies will be influential, what their value or disruptive properties might be and then gauging the behaviors of people in relation to these trends, enables your vision to take shape.

We have touched on automation, and cognitive and machine learning, and all of these technologies are increasingly adding value to the workplace. However, there is an underpinning principle to understand when delivering IT services and that is: your end users are your future. They are your route to profitability or an efficiently run organization. So, how you integrate new and emerging technologies into their business lives, becomes key.

There has always been a requirement for the CXO to drive down the cost of IT and continuous service improvement and refining processes has been the traditional vehicle for this. However, we simply cannot continue to squeeze the process or get more out of the Service Desk agent and still meet the needs of tomorrow's workers. The agent has been squeezed so much, they can no longer add value. Fundamentally, organizations and their users do not want this kind of support, which often leads to Shadow IT.

Accepting that the efficiency of end users is the route to cost savings is just the start. Understanding the business outcomes of the organizations we provide services to, and the role of end users in achieving those outcomes, helps us start to deliver the right services.

Knowing what kind of experiences tech-savvy and non-tech-savvy people consume voluntarily, outside of the business environment, should impact how you support them when they are working.

Being "cool" counts; but so does familiarity, ease of use and simplicity. Once people like something, they will be advocates to their peers, driving higher levels of adoption and utilization of self-service. Understanding and delivering this is what we do.

In the future, even more than today, things will just have to work; just like they do when we go home. Customers and colleagues alike will expect it. Data has to be available and of use. And people must always be connected.

The NGSD delivers one, simple and consistent way for people to self-remediate and interact with support, on their terms. It learns from each interaction with users, improving subsequent contact as a result and grows its knowledge dynamically, to the point that many issues never reoccur.

It's part of Fujitsu's human-centric agenda – mapping the Service Desk to our vision of a simplified, personal and contextual workplace fit for the future generations.



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