FUJITSU

White paper
The future of Service Desks - vision

Service Desks require strategic consideration and innovation to raise user productivity and to support business goals. Fujitsu has the experience and feedback from the market which put us in a privileged position to create the vision of a Service Desk which is available anywhere, anytime and via any platform.

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Introduction

Service Desks are generally accepted as the main customer interface and often as the single 'touch point' where users can receive help and guidance on IT service issues, problems and requests - hence its importance.

However, very few organizations see the Service Desk as a service which requires longer-term strategic consideration and innovation and this is one of the areas where Fujitsu differentiates itself from its competitors.

Companies increasingly depend on IT technology and business success is closely linked with IT innovation. This leads to ever-changing requirements for Service Desks. Fujitsu believes that it is essential to look beyond the next 12-24 months and develop a long-term vision for Service Desks that is based on the society, organization and technology changes that will continue to affect the way in which we must deliver support.

Background

The continued growth and adoption of mobile smart devices including Bring Your Own Device (BYOD), social media technology and new cloud solutions result in constantly changing expectations and opportunities for an IT Service Desk.

In the past, Service Desks predominantly received calls about something that was broken. Now, demands from end users increasingly include requests based on "I need to" or "how can I do this" which require a fundamentally different approach and skills set. Organizations are also demanding more agile, flexible, innovative and cheaper solutions to meet their rapidly changing business needs. The current economic climate is also forcing companies to re-evaluate their existing systems and strategies with a clear focus on increased service delivery at a lower cost while maximizing the use of existing resources. This is a great opportunity for the Service Desk of the future.

Moving forward, end-user self-service portals and seamless integration with mobile devices are the key directions for IT service technology. Employees want to access services and support when they want, where they want, using whichever technology and device. This can create problems for IT professionals trying to manage such a wide range of technology infrastructure; but this is reality and IT companies need to adapt accordingly.

So the future Service Desk must be able to provide services via web portals using any browser technology and via any device, thus enabling users to access the services they need. Another high priority is a reduction of expensive and time-consuming solution development resources.

Fujitsu's Approach

Fujitsu is working to anticipate the challenges and changes that companies are likely to face and this White Paper describes a vision of a Service Desk that we will be seeing in 2020. It identifies key areas of change and how Service Desks should develop in the coming years to meet future challenges.

Predicting the future is impossible and we cannot reliably forecast the future of Service Desks. However, as a result of our experience, our innovative thinking and also by understanding our market and listening to customer feedback we believe that we are in a privileged position to forecast some of the future requirements, trends and innovative ideas and that a fair percentage of these predictions will be correct.

Many market experts have identified over the last couple of years that there is a growing demand for Service Desks to deliver and demonstrate a greater contribution and value to the operation of the business for which they work. Fujitsu identified and highlighted this more than 10 years ago and since then we have been implementing ideas, processes, methods and technologies that have made us as a leader in this sector. Every year Fujitsu spends about 2.5 billion $ on R&D and some of this money goes into Service Desk innovation.

Many companies that have not invested in Service Desk innovation nor provided significant value via their Service Desk services have closed down their operations or are in the process of closing whereas others, such as Fujitsu, who continuously invest in delivering greater business value, are growing. Following our vision of a human-centric intelligent society, Service Desk innovation is and will be an important element in raising user performance and satisfaction in the coming years.

Another crucial role of the Service Desk is to act as a facilitator for cost savings by preventing failures in technology and associated services from having a negative impact on business. Again, this can only be achieved by innovation.

Our Vision

Our vision for Service Desk 2.0 is Anywhere, Anytime and on Any Platform.

The Service Desk of the future will operate anywhere, anytime and on any operating system or platform. Service Desk agents and users will no longer be restricted to a particular location or technology in order to deliver or receive fast and efficient technical support. Virtual agents will be a part of all Service Desks in the not so distant future and they will complement or in some cases replace human agents.

Employees are already spread all over the world and are mobile. They can access company tools from anywhere in the world using their favorite apps on their own preferred devices (BYOD). Service Desks must adapt to such changes in order to keep pace and ensure that their employees and clients are efficient, effective and motivated.

Here are some of the measures that we believe will be trend-setting in a medium to long-term Service Desk strategy and which will bring real innovation:

- Bring Your Own Device (BYOD)
- Email ticket submission
- Instant Messaging technology
- Support systems that automatically know the user
- Support systems that automatically identify the user.
- Self-healing and self-aware machines and software.
- Peer-to-peer support
- Service Desk Virtual agents
- Tailor-made and target-oriented
- Attrition and people development
- Prioritization, classification and optimization of tickets
- Self-service portals

Bring Your Own Device (BYOD)
BYOD is on the rise and set to drastically increase over the next few years. Organizations must face the fact that employees want to use and indeed will use their own devices for work. They are already doing so. Service Desks need to be prepared and adapt to meet this trend. Some companies are embracing BYOD as a way of increasing the productivity of their workforce while others are not so open to the idea, mainly due to security concerns.

It is a key factor for Fujitsu that boundaries are clearly stated and understood and that employees have to follow the standards, procedures and guidelines involved when connecting their device to the company network. The Service Desk needs to understand and communicate the level of support that is provided to employees who bring their own devices. The Service Desk as well needs to have clear understanding and clear criteria and procedures for BYOD to determine what is supported by internal IT, what is supported by a third party and what is the responsibility of the employee. The call is then handled accordingly.

Email ticket submission
Email is often seen by end-users as a faster way to log a ticket because they do not want to spend time on the phone. However, email tickets in reality usually take longer to get closed. This is due to users' inability to troubleshoot a particular situation or describe their need in the original request whereas a Service Desk agent on the phone knows exactly which questions must be asked in order to solve the problem quickly. Nevertheless, we must accept that many users prefer to email a ticket rather than call the Service Desk.

Fujitsu has seen email growing as a channel for users to report incidents from 10% in 2005 to 25% in 2013. We predict this trend will continue over the next few years even though the increase speed will drop.

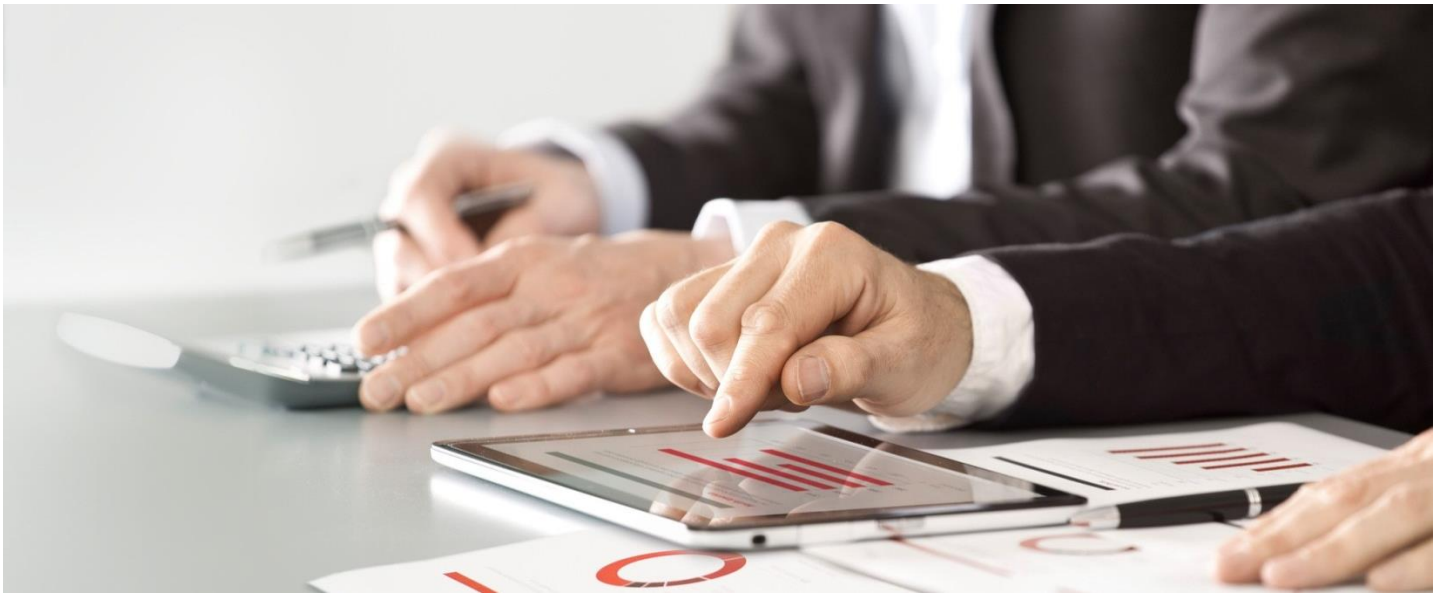
In order to process email ticket submissions efficiently and effectively systems must be able to automatically route tickets based on the email content so that the entire process is turned into an automated process instead of fully people-based. This will revolutionize the way email tickets are handled. Fujitsu is already implementing and further developing this innovative concept.

Instant Messaging technology
In general, Instant Messaging is easy to deploy. It requires no or hardly any training and it is very quick. In many cases users already use one form or another of Instant Messaging in their private life. It thus has some advantages in a Service Desk context. There are however several aspects to consider before implementing "normal" Instant Messaging technologies as part of a Service Desk. Companies need to think about how this channel is to be managed and what benefits this technology generates as there will be more complex requirements and considerations associated.

Fujitsu has seen Instant Messaging technologies grow as a channel for users to report incidents from 2% in 2005 to 10% in 2013. We predict that this trend will continue over the next few years.

Although it may be possible for Service Desk agents to manage one or more Instant Message conversations at one time, this method of handling questions will lose its appeal if a Service Desk agent is slow or non-responsive in an Instant Message conversation. For this channel to be successful It is also vital to understand how service levels, ticket volumes and user satisfaction can be monitored, measured and reported. Any Instant Messaging technology must therefore be fully integrated into the ticketing tool.

As with other more standard Service Desk interfaces, it is often the human element that is the bottleneck (searching for answers, typing the reply and often duplicating the call or text in a ticketing tool in less integrated systems). The future of Instance Messaging technologies for Service Desks undoubtedly lies in automated replies or bots. Artificial intelligence needs to be embedded in Instant Messaging technology allowing users to submit and troubleshoot a problem in normal language (for example English). A bot would reply with valid intelligent solutions to the problem. Chat bots are already reality and can provide a great service compared to a human operator: much faster, cheaper and more reliable in some cases. This requires a comprehensive knowledge base that continually improves and which is in constant evolution as more and more tickets are created. Research here is already underway and will undoubtedly be reality, thus generating a revolution in the Instant Messaging ticketing submission process.



Support systems that automatically know the user

A user has been to the company's intranet several times trying to find a solution for a specific IT problem. If unsuccessful, that user will probably pick up the phone and call the Service Desk. By the time the user has identified himself via the automated voice system (or was automatically identified – see below), the Service Desk will know that the user has been to the intranet and the pages he has visited. This will stop similar suggestions being made or asking whether the user has found and tried certain solutions which are offered via those intranet pages. This will increase user satisfaction tremendously. With such detailed information about users and their historic data in terms of tickets the Service Desk proactively identifies user trends, suggests training requirements, changes intranet pages and provides information for IT departments.

The Service Desk knows the profile of the user calling, and whether that person is technically skilled enough to self-serve most of the time or whether this user requires more detailed troubleshooting assistance. If the user calling the desk has comprehensive technical skills, the Service Desk automatically assumes that this call should be directed to a 2nd level support stage. This technology already exists but has not been widely adopted.

Support systems that automatically identify the user

Fujitsu has invested a lot of effort in biometric systems. Smart systems can use retina scans, palm scans and other real-time personal information in order to ensure that when someone contacts the Service Desk the agent automatically receives this information in order to identify the person. This reduces time, saves money and avoids the frustration of having to repeat information again and again. The same could be applied to the Service Desk agent receiving the request. The user automatically knows to whom he is talking.

If we can envisage what this technology enables, we can immediately understand its importance. Here is a simple example. A user calls the Service Desk to request a new laptop. The agent knows who the user is, his department, his manager, who has to approve this request and the process to order, setup and deploy this laptop. This complete information will ultimately be available without having to consult different systems. We could list many examples where such technology can save time, money and incredibly increase the efficiency of a company that is supported by a Service Desk.

This technological advance will bring its own set of unique challenges (privacy, security, etc.) but will undoubtedly become reality in the future for all Service Desks. Fujitsu already has the technology required to support this.

Self-healing and self-aware machines and software

As machines become increasingly connected to the internet and other devices they can solve their own problems or at least alert owners, IT departments, or even the devices that they have a problem. This is critical in companies with thousands of devices; Service Desks could be warned of any problems affecting any device in the company.

In most companies today, a user or a group of users calls the Service Desk agents who then realize that there is a problem and reactively inform IT. This is basically how companies usually find out that they have an issue with one of their systems.

Alerts created automatically when there are failures enable the Service Desk to contact the user proactively. A solution can be simultaneously provided or a hardware change or other intervention can be triggered which solves the problem - hopefully without the user even noticing something has happened. It is easy to imagine the positive impact of such proactive measures on productivity and end-user satisfaction.

Today, such work is already carried out by several software systems (anti-virus software, etc.), informing the user that there is a need for an update. However, most hardware still depends on a person noticing a problem and asking for a solution. Unfortunately, the person using the device is the one who alerts the Service Desk.

Smarter peer-to-peer support

Sometimes the best solution for a very specific problem does not come from the IT department, a manual or a knowledge base and maybe not even from the Service Desk but from someone in the company who has experienced a similar technical situation or problem. Peer-to-peer support is not the right solution for every problem but it is sometimes the best possible - and perhaps fastest and cheapest - support available. The Service Desk should have mechanisms to direct the user to the right person; this can only be done with the right tools and processes.

An increasing number of companies are recognizing that peer-to-peer support is essential and saves money. It also engages customers in a company's community and provides better support than any trained IT person can do. The need for desk-side engineers is greatly reduced and employees reach out to each other in order to establish better cooperation within a company. Incentives can even be put in place to foster such behavior. The Service Desk plays a key role in this approach by redirecting the question to the appropriate colleague if they have innovative information systems to facilitate such routing.

Service Desk Virtual agents

A virtual agent is a computer-generated character that simulates a conversation to deliver interactive voice or text-based information in a Service Desk or customer care environment. Virtual agents can provide accurate, personalized, fast, interactive information to customers via websites, phones, social media sites and instant messaging applications. When properly designed, deployed, and managed the Service Desk Virtual agent can hold an intelligent conversation with end-users and thus provide a very efficient method for ticket resolution.

Today's most capable Service Desk agent "toolsets" are still somewhat complex to build, customize and operate. Fujitsu is investing heavily into this technology and we believe that the not so distant future will see self-learning Adaptive Intelligence Service Desk agents capable of handling highly complex interactions. Companies will be able to leverage this technology in order to accurately replicate real human conversations and end-users will obtain the answer to their questions almost instantly and precisely.

Deploying virtual agents to perform simple "first touch" tasks is already possible and the near future will see these agents answering increasingly complex questions; such offered self-help based saves on more costly support resources. These Service Desk Virtual agents will replace some of the standard human operators in all Service Desks in the future; they will need the following abilities:

- Automatic learning
- Recording and reporting
- Base personalities
- Profiling
- Management and optimization

Tailor-made and target-oriented

For Fujitsu the Service Desk is designed to be fit-for-purpose, suiting the unique needs of a specific organization and its customers rather than adopting the exact model used elsewhere. The Service Desk needs to feel like part of the company – a fact of which Fujitsu is fully aware. Metrics should drive desired behaviors in a balanced way and based on our experience we are able to suggest changes and improvements to contracts and metrics if we believe they make more sense or create a viable alternative that still delivers a great service but at lower cost.

Fujitsu understands our customers' businesses and their targets and the Service Desk has to be a facilitator supporting companies to meet and exceed their objectives. Companies use Service Desks because they help them achieve their targets. We keep this in mind, considering how our actions impact them and demonstrate that everything we do is focused on helping organizations to achieve established goals.

Attrition and people development

Every company understands the importance of attrition and people development but why are they so important for the Service Desk and what can be done to innovate?

The Service Desks' position within many companies is at the bottom of the decision chain. It is usually something for employees to do before moving onto another role. Fortunately, this perception is changing - not just because of the increasingly high caliber of professionals that the industry is attracting but also because of the innovation factor in competent Service Desk companies which transforms a sometimes repetitive task into a much more rewarding experience. Motivated Service Desk employees have a big positive impact on the organizations they support since they continue to look for ideas on how to improve the service. If you just imagine the number of interactions each Service Desk agent has with your staff you can easily understand the importance of this element.

Prioritization, classification and optimization of tickets

This is another area which Fujitsu believes will be crucial in the future. We have already seen - and are using - smart-learning algorithms for web-based content (Google search and others) but what about a ticketing tool that discovers the importance of a ticket based on the words and data it contains, and which thus effectively turns the entire control of the process into a semantic method instead of fully user-based. Tickets get escalated, routed, prioritized and archived based on their actual content rather than human choice. This saves time and money, reduces mistakes, increases user satisfaction and offers a much better end-to-end service. Ticket documentation, indexing and searches also increase dramatically which is critical for any Service Desk performance.

Self-service portals

Self-service portals and knowledge bases are two essential requirements for the Service Desk of the future. They are the ideal tools to resolve simple incidents and service requests quickly; they are also one of the most cost-effective ways to provide 24×7 customer support. They are readily accessible and ease the demand on support teams by making essential information available automatically and effortlessly.

Other self-help tools, such as FAQs, how-to guides, videos, and internal forums, can also reduce the impact of routine work and after a while users become used to such elements. These elements can be integrated or embedded into Self-Service Portals.

Self-service portals can be much more than just a one-stop shop for ticket submissions and updates, they can proactively inform the user of important matters taking place in the company. Organizations should take advantage of this mechanism to connect with employees. The Service Desk of the future must implement robust self-service resources to facilitate the resolution of repetitive tier-one problems. It must also promote knowledge-sharing.

Final Thoughts

Service Desks will always be needed because IT breaks, IT does things that it shouldn't do and IT users do not know how to do things or how to get the information they need. So it is safe to assume that Service Desks will still exist in ten or twenty years' time, in fact, they will be thriving but will undoubtedly be different.

Service Desks will still be required until self-healing software and hardware have become reality and eliminate 100% of the issues in a way that does not affect workers, and all applications are self-explaining and all interfaces are unrestrictedly intuition.

IT is evolving quickly although the pace of this evolution has slowed down recently which is quite understandable but there will be other leaps forward in the near future. The more technologies we introduce, the more complex the systems are. Company processes and competition between companies are forcing us to adapt quickly. A Service Desk can be a differentiator for companies and a way for employees to be more productive.

Perhaps some of the predictions in this White Paper will not come true and they are simply futuristic thoughts. Others will seem really obvious when we look back on them in five or ten years' time. The key is to consolidate and then innovate, ensuring that we have the right base on which to build and this is an area that Fujitsu has been strong over the years.

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2014-04-01 INT EN