



Briefing Paper

# The importance of effective IT Knowledge Management for **Higher Education** providers

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*“The average time commitment increased by a factor of 5 at each escalation step when user, agent and management time was taken into account.”*

## Introduction

Much has changed in the IT Service Management market during recent years and while many organisations have some form of IT helpdesk, ticketing system or incident management system in place, many are now outdated and expensive to maintain. So much so that the main reasons given for upgrading to more modern solutions during 2015 were the maintenance costs of legacy systems and the costs of adding the sort of functionality to those systems that is now available as standard on newer, less expensive systems.

As discussed in our briefing document “The top 10 IT cost-saving benefits Higher Education providers should be getting from ITSM”, the latest breed of fully featured IT Service Management applications, such as Simplisys Service Desk, are available as Cloud-based applications or on premise installations and provide a wide range of opportunities for Higher Education providers to improve the IT service they offer while reducing the cost of delivering those services.

These ITSM applications deliver core services out of the box and are designed to provide flexibility through configuration rather than customisation. A huge variety of standard reports provide historical, real-time and even trend analysis allowing pro-active management of service delivery in a way that simply wasn't possible in the past without devoting a considerable budget to the development of customised solutions. Underpinning established business processes and the easy adoption of new processes with configurable Workflows and Business Rules allows a high degree of automation, taking costs out of the system and allowing resources to be focused more effectively and more efficiently.

There are, however, some core features that have been a part of IT service management for many years, such as the concept of knowledge management, which was always intended to increase the First Contact Resolution (FCR) rates and thereby reduce costs. This principle remains as important today as it ever was; the difference now is that other features, such as self-service and the implementation of ITSM applications into other areas of the business like sales, HR and Facilities Management, have allowed organisations to realise the potential that knowledge

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Within this briefing paper we focus on the ways that 'integrated and dynamic' knowledge management is helping Higher Education providers to achieve real cost savings while improving both customer and staff satisfaction rates which in turn is improving productivity significantly. Our starting point is to look at some of the reasons why raising FCR rates is so important as this is crucial in understanding the value that modern ITSM applications can deliver as well as the rapid return on investment that can be achieved.

Simplisys has been providing ITSM systems to the Higher Education sector for many years. This investigative study is based upon analysis of the cost structures and relationships that existed within the IT service delivery teams of those customers prior to implementation of Simplisys Service Desk software and the results achieved post implementation.

While we recognise that the precise costs and relationships will vary from organisation to organisation, the important relationships and principles that come out of the study are consistent with those shown in many studies in other market areas where modern ITSM solutions are employed as well as our own customers' experiences in other market sectors.

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## The Study

There are many different ways of looking at cost savings, value delivered or benefits arising from ITSM implementations and very often studies get bogged down in detail or take some elements into account while ignoring others. Our objective with this study was to use a very simple measure; that of time taken to resolve incidents logged at the service desk, to reveal the potential cost implications of failing to resolve these at first contact. We wanted to see if we could arrive at a simple cost multiplier that was consistent throughout the studied subjects.

First, we considered what happens when a call is logged and how the amount of time, and consequential cost, grows as a result of escalation beyond the first service desk contact. We found the following:

- **1st contact resolution:** average time taken is 10 Minutes consisting of initial contact by the client to the helpdesk and the helpdesk agent's time in getting to the root of the issue, logging the call and completing. Time taken breakdown: Client 5mins, Agent 5mins.
- **2nd contact resolution:** average time taken is 50 Minutes consisting of agent's time appraising themselves of the incident, working out a solution, contacting the client, asking questions then performing actions. Time taken breakdown: Client 20 mins, Agent 30 mins.
- **3rd contact resolution:** average time taken is 250 Minutes consisting of further investigation performed by the agent, possibility of escalating the incident to 3rd line agents, problem managers etc. Time taken breakdown: Client 40 mins, Agent 210 mins.
- **4th contact resolution:** average time taken is 1250 Minutes consisting of in-depth fault diagnosis resulting in the Issue being dealt with by deep technical support involving management time in overseeing SLA and agents. Breakdown: Client 60mins, Agents 1160mins, Management 30mins

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## The Study

It is important to remember that end users (callers) are always involved; an end user is the most important part of the support equation. They are involved from the start and are impacted to various degrees of disruption to their core working practices. It is the primary function of the support department to return the user back to a normal productive state as soon as possible with the least impact to them and colleagues relying on the affected working process.

Our study has revealed that, on average, time commitment across a number of businesses increased by a factor of 5 at each escalation step when user, agent and management time is taken into account. The effect on man hours expended and the consequential cost implications of making modest improvements in the number of calls closed at first contact is quite obvious. Taking this a stage further, we can show, through a theoretical scenario, how this may impact on costs within an organisation.

Figure 1 summarises our findings broken down by the time taken at each contact by staff and client.

	First Contact	Second Contact	Third Contact	Fourth Contact
Client (Caller)	5	20	40	60
Agent	5	30	180	540
IT Specialist	0	0	30	620
Manager	0	0	0	30

Figure 1: Who spends what time (minutes)?

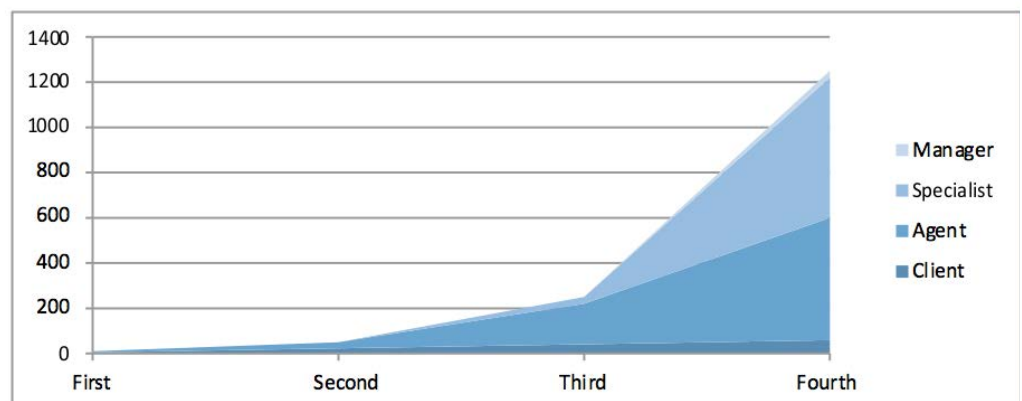


Figure 2: Graphical representation of the time allocation at each escalation

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## Theoretical Scenario

Company X has a professional IT department and manage to close 50% of incidents at first contact, 30% at second contact and 20% at third contact. They are looking to make modest improvements and have set a target to increase the number of calls closed at first contact by 10% and reduce the corresponding number at second and third contact. For the purpose of this illustration we have assumed company X logs, on average, 1000 incidents per month.

As discussed previously the average time taken to close a call is multiplied 5 times at each contact (escalation) see below:

Contact	Average Time to Close (Minutes)
First	10
Second	50
Third	250
Fourth	1250

Figure 3: Time commitment at each escalation

Closing 10% more calls at first contact can save a significant amount of time, as can be seen from the summary presented in Figure 4. In the illustration provided "Company X" saved 6000 man minutes per month, which equates to 100 man hours per month by increasing the number of calls closed at first contact by just 10%.

Contact	Number of Calls Closed per Month	Average time to Close (Minutes)	Number of Calls per Month 10% improvement	Average Time to Close (Minutes)
First (50%)	500	5000	550	5500
Second (30%)	300	15000	270	13500
Third (20%)	200	50000	180	45000
Total	1000	70000	1000	64000

Figure 4: Effect of 10% improvement in the number of calls closed at first contact.

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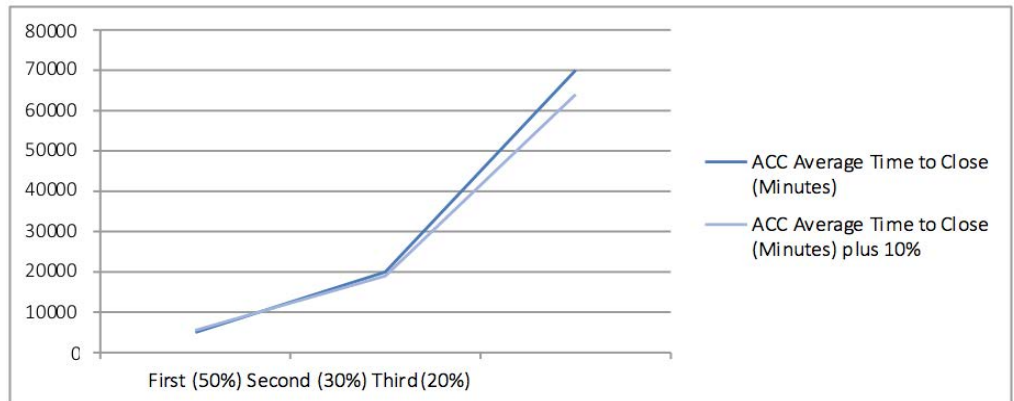


Figure 5: Effect of 10% improvement in the number of calls closed at first contact.

Analysis of the time consumed per role can be seen in Figure 6, all figures are given in minutes.

	Employee	Employee 10%	Saving Employees Time	Analyst	Analyst 10%	Saving Analyst Time	Specialist	Specialist 10%	Saving Specialist Time
First Contact	2500	2750	(250)	2500	2750	(250)	0	0	0
Second Contact	6000	5400	600	9000	8100	900	0	0	0
Third Contact	8000	7200	800	36000	32400	3600	6000	5400	600
Total	16500	15350	1150	47500	43250	4250	6000	5400	600

Figure 6: The effect of a 10% improvement in calls closed at first contact.

To express these findings in financial terms, we have assumed the following UK average salaries (Source: TotalJobs.com) and a contracted working week equal to 40 hours.

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Industry average salaries for the key IT posts involved in support are as follows:

- **Employee** – 25k per annum (£13.02 per hour/ 21.7 pence per minute)
- **IT Analyst** – 25k per annum (£13.02 per hour/ 21.7 pence per minute)
- **IT Specialist** – 32k per annum (£16.66 per hour / 27.7 pence per minute)
- **IT Manager** – 37k per annum (£19.27 per hour / 32.1 pence per minute)

Total saving in terms of cost (average salary) equates to:

- **Employee** – 1150 minutes @ 21.7 pence = £249.55 per month.
- **IT Analyst** – 4250 minutes @ 21.7 pence = £922.25 per month.
- **IT Specialist** – 600 minutes @ 27.7 pence = £166.20 per month.
- **IT Manager** – 30 minutes @ 32.1 pence = £9.63

Out of the 6000 minutes of working time saved 1150 minutes or 19 hours (19%) equates to increased operational efficiency and 4850 minutes or 81 hours (81%) IT department's time spent fire-fighting issues as they arise.

The total financial benefit of a 10% increase in incidents closed at first contact is, therefore, £1,347.63 per month in this example.



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Clearly the illustration will not necessarily be accurate for every organisation but the principle is sound and IT Managers are invited to work out the figures for their own organisation. This illustration does not attempt to quantify the positive effects of increased client goodwill, the productivity enhancements or the re-allocation of IT resources to more productive areas but quite obviously, each of these enhances the benefit to the organisation still further.

So the question is, what are the most effective ways for Higher Education providers to improve First Contact Resolution rates? In this briefing document we focus on the way that modern ITSM applications make effective knowledge management a reality through the dynamic and proactive delivery of that knowledge where and when it is needed most by agents and end users.

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## Dynamic Knowledge Management

Modern ITSM applications, such as Simplisys Service Desk, facilitate the creation of content as a by-product of solving cases, they create an environment where support analysts can easily capture and evolve content as part of the incident and or problem management process. The support analysts reuse knowledge every day when assisting customers who contact them with issues and questions. Once validated and published the knowledge created is available immediately for other analysts to use.

The objective, however, is not to simply create the ultimate Knowledge Base; information must be presented to the person that needs it when they need it in order to improve decision making and issue resolution so the information must be dynamically presented in the context of the query and in a readily usable format.

By empowering service agents with the ability to resolve queries quickly and efficiently within a modern ITSM environment the organisation derives wide ranging benefits in addition to cost savings through improved First Contact Resolution rates. Customer satisfaction levels rise as they get resolutions faster and therefore value the service desk more highly.

In getting users back to work faster, organisations see productivity improvements and feel more inclined to support new IT investment. As recurring questions are answered within the knowledge base, IT staff are free to focus on new issues or other more productive tasks which effectively increases the capacity of the IT department. Over time, the improvement and scope of the knowledge base leads to greater consistency in service responses, particularly when dealing with complex issues.

Further benefits accrue when support staff training and morale is taken into account. Less time spent dealing with the same issues means less repetitive tasks and better issue resolution processes increase staff confidence by enhancing their ability to provide resolutions which raises job satisfaction and reduces 'burn-out'. New support staff training times are cut and they become productive faster as their support infrastructure is better.

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A modern service desk solution, such as Simplisys Service Desk, delivers dynamic knowledge management capabilities out-of-the-box and uses this functionality to enable self-service; one of the most valuable additions to an IT managers armoury.

A typical scenario could be that your IT services team are already stretched in fire-fighting live technical issues that impact the organisation as a whole yet they are constantly inundated with relatively trivial requests that just distract them and get in the way of more pressing issues. Yet for the end-user, even a trivial issue may well stop them working and lead to dissatisfaction with the performance of the IT department.

Dynamic knowledge management can be extended to the self-service portal. System Administrators are empowered to publish knowledge to the portal and restrict which articles are promoted as possible solutions (self-help) based on relevance when the Request is being logged. Knowledge articles can dynamically promote common fixes, FAQs or simple work-arounds as possible solutions based on the issue at hand, freeing up service-desk and technical staff time for dealing with more complex issues, planned maintenance or the myriad of other demands on their time. This not only keeps costs down but can dramatically improve the customer experience, employee satisfaction and perceived contribution of the IT department.

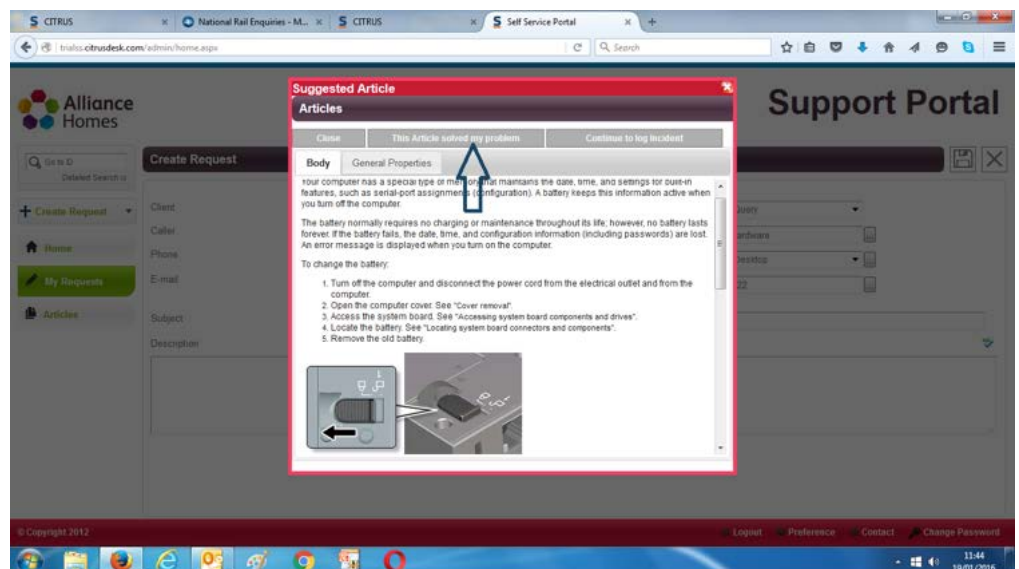


Figure 7: A typical themed self-service portal screen from Simplisys Service Desk

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## Conclusion

Within this briefing paper we have demonstrated the importance of increasing the First Contact Resolution rate and the central role that effective knowledge management plays within that process. The goal of knowledge management is to ensure that the right information is sent at the right time, to the right department in response to an information request. This agent or user must receive information to allow them to make better decisions in the context of the query or resolve the issue themselves if they are an end user engaged in a self-service portal.

Modern ITSM solutions, such as Simplisys Service Desk, have dynamic knowledge management built in to their core functionality which allows organisations to realise the potential for lowering IT service costs while raising customer satisfaction levels and improving productivity.

As organisations extend the deployment of service management software into other business areas beyond IT such as HR, Facilities Management and Sales Support, the benefits of effective knowledge management will be extended further. Return on investment with the latest ITSM solutions can be very rapid, particularly as capital investment is all but eliminated if engaging with a cloud-based solution.

For Higher Education providers that are constantly under pressure to improve the quality of the services they deliver while tightly controlling IT budgets, replacing a dated, legacy system with a modern ITSM solution should be high on their list of priorities.

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## About Simplisys

Simplisys Limited is the developer of Simplisys Service Desk (formally known as Citrus Service Desk). When we designed Simplisys Service Desk our objective was to quite simply create the ultimate service desk application for use in the real world – a rich feature list, configuration not customisation at its core, fast implementation out of the box, integration with your workflows and business rules, following ITIL best practice and a price point that makes it accessible to most organisations.

Simplisys Service Desk is designed developed, installed or hosted, and supported by our team at Simplisys Ltd. With our head office in Portishead, Bristol, Simplisys Ltd is an ISO 9001 registered company and delivers solutions to industry best practice quality standards. Our approach to implementation is to work closely with our customers, understanding requirements and reasons for change and ensuring that projects exceed expectations.

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