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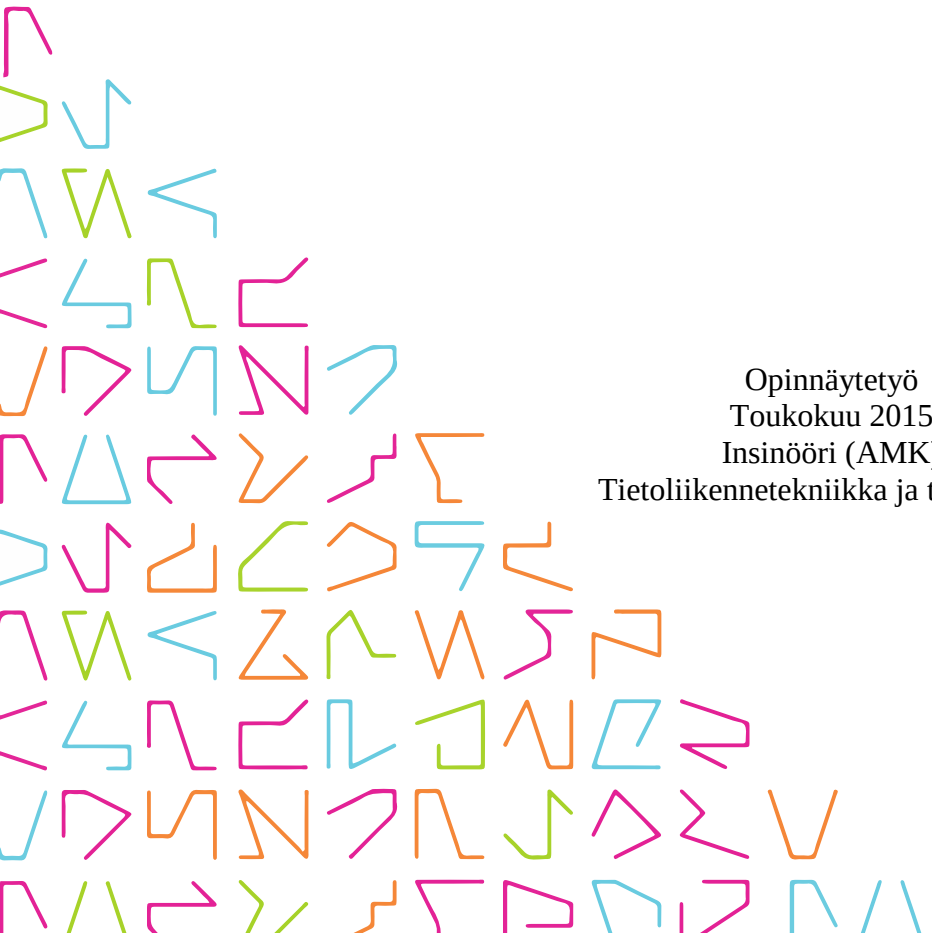
ON-SITE SUPPORT AND SERVICE DESK OPERATIONS ENHANCEMENT AND OPTIMIZATION

Jarno Kirjavainen



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Toukokuu 2015
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Tietoliikennetekniikka ja tietoverkot

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Tampereen ammattikorkeakoulu
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KIRJAVAINEN JARNO
On-site Support and Service Desk Operations Enhancement and Optimization

Opinnäytetyö 32 sivua, joista liitteitä 0 sivua
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Työn tavoitteena oli tutkia ja selvittää kuinka kahden eri toimintayksikön, IT Service Desk:n ja On-site Supportin, yhdistyminen tulisi vaikuttamaan yrityksen loppukäyttäjiin. Näille yksiköille tehtiin uusi yhteinen palvelusopimus, kun aikaisemmin ne toimivat erillisinä toimintayksikköinään. Työhön kerättiin tietoa yrityksen sisällä haastattelemalla sopimuksista vastaavia työntekijöitä sekä ja IT päälliköiltä saatuja dokumentteja.

Lopputyön tekemisen aikana yhdistyminen ei ollut vielä tullut voimaan eikä Service Desk:n ja On-site Support:n välillä, joten tarkkaa varmuutta muutoksen lopputuloksesta ei ole tiedossa. Ensimmäisenä työssä käydään läpi mitä uuteen sopimukseen tulee laittaa ja millaisia muutoksia siihen on tulossa. Seuraavassa kohdassa tutkittiin ja selvitettiin miten työnteko muuttuu Service Desk:n ja On-site:n välillä, sekä millaiset asiat tulevat vaikuttamaan hintaan ja loppukäyttäjän saamaan palvelu-kokemukseen. Työn loppupuolella selvitettiin yritykseen tulevien uusien sovellusten ja menetelmien vaikutusta loppukäyttäjiin, sekä selvitettiin näiden teknisiä ominaisuuksia.

Yleisellä tasolla lopputyön tavoitteessa onnistuttiin. Työssä löydettiin millä tavoin muutos tulee vaikuttamaan loppukäyttäjän palvelukokemukseen. Tässä uskotaan että kokonaisuudessaan IT palvelu tulee kehittymään parempaan suuntaan loppukäyttäjille sekä palvelutyötä tekeville IT Service Desk:n agenteille.

Kaikki yrityksen luottamuksellinen tai salassa pidettävä tieto on poistettu tai muokattu työstä pois.

Asiasanat: service desk, lähituki, palvelutasosopimus

ABSTRACT

Tampereen ammattikorkeakoulu
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On-Site Support and Service Desk Operations Enhancement and Optimization

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The aim for this thesis was to research the changes and targets of the current IT Service Desk's & On-site support's merger under one contract. This merger is going to affect the first contact for the end users and how the IT controls the ticketing system. Research was done by interviewing and gathering company's internal data from all over the infrastructure which has been utilized to write the thesis.

The unification hasn't yet be introduced to the day-to-day base usage as it's still in its negotiation phase. Firstly in the thesis it's researched on how the contract is going to be modified and which parts were to enhance the end user experience. Second part of the thesis is focused on the Service Desk and On-site support synergy, what was changed and how it affects the costs. The last part was for studying and examining the upcoming features for IT, for example self-healing.

The thesis process generally was a success, it was found out how the merger was going to effect the end user. The main targets in the project are achievable with the unification and the new ways of working are going to increase the whole support experience for all the employees.

All confidential information has been removed or modified from this thesis.

Key words: it service desk, service-level agreement, on-site support, contract unification

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ABBREVATIONS AND TERMS

FCR	First Call Resolution
Incident	Means the occurrence of a problem of a type that is required to be supported by Supplier under the Agreement;
IT	Information Technology
ITIL	Information Technology Infrastructure Library
ITSD	IT Service Desk
KPI	Key Performance Indicator
MDS	Master Data Services
OSS	On-site Support
SCCM	System Center Configuration Manager
Service Request	Means a request from a User for Support Services that does not involve an Incident
Site	Means Forest company's administrative, Mills and operational premises
SLA	Service-Level Agreement
SPOC	Single Point Of Contact
Ticket	Means Service Requests, Incidents, and information requests entered by Supplier or other Client's IT Functions or Client's Systems into the Ticket Management System

1 INTRODUCTION

The target for this thesis was to get a better touch into what the changes can provide to the client's, the forest company for whom this is thesis is made, end user's service support experience. As the Service Desk and On-site support are being unified from being on two different contracts they're merged into one single contract. This transition requires several different matters to be reconsidered for a renewal or even to be created a new contract. One of the main targets includes redesigning Service-Level Agreement (SLA's) and the RACI model. That chapter was written in the aim to get an understanding for the new contracts and how some sections need to change.

In the second part of the thesis common synergy of IT Service Desk and On-site Support is being examined. What kind of tools and processes they're able to use as under the new contract. This as well is going to affect the cost changes and how it is going to be changed and why.

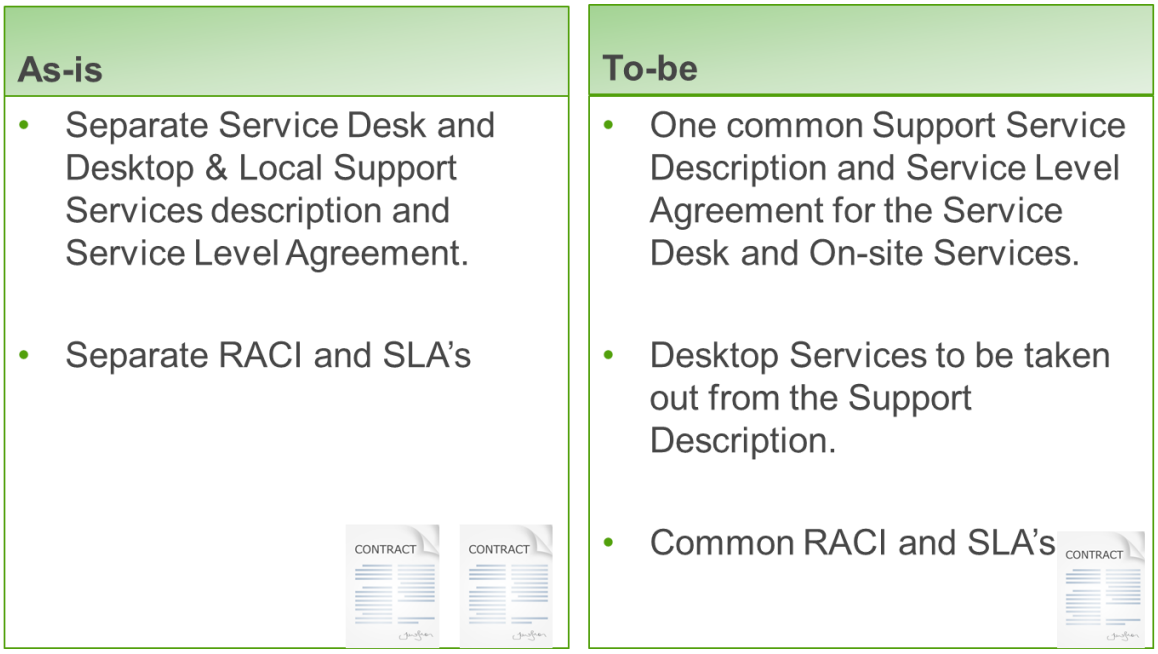
The third part is focused on the new ways of working within the company. They're up-coming features and applications to assist the whole end user experience. As well as it is being designed to help the Service Desk's and On-site support's day-to-day basis work. For example a self-service tools are in the process to be implemented in to the service support.

In the last and fourth chapter of the thesis focuses on the future, the conclusions of the merger of IT Service Desk and On-site Support, and the new ways of working in practice. What are the most crucial parts of the change, and how is the whole new contract going to interact with the end users. These cases are being reflected from the thesis writer's perspective.

2 CONTRACT COMBINATION

The main goal is to have the contracts for IT Service Desk and On-site Support to be combined as one. As these two are separate departments at the moment and they're are going to be merged into one unit called Service Support. Therefore a brand new contract will be required and negotiations for the contract creation are still ongoing.

The contract is being negotiated between a large global forest company and its IT partner. The contract is created from an offer made by the forest company and for its approval by the partner company. Overall a contract should enclose the participants, meaning, subject, scope and duration (Lindfors A, 2004). The forest company will be referred as the client and the IT partner will be referred as the supplier in upcoming chapters.



PICTURE 1. The current model and to future to-be model (Service Delivery Manager, 2016)

In the picture 1 it's visible how the current contract is and how to upcoming version is envisioned to become. Two different contract to be one and multiple functions are being modified and combined, for example the RACI model which will be gone in more detail later in the chapter.

Picture 2 reflects the general way for a contract life cycle. The contract life cycle is included by what the process contains and in what kind of sequence the objectives are being agreed on and executed. Following the process will assist to minimize the possible errors or misunderstanding from happening.

PICTURE 2. The creations of the contract process (State of Flux, 2013)

As there has been two different contracts earlier there will be sections that can be reused and won't require large amount of input that a brand new one would require. The picture 2 and this thesis's content is being designated to the phases one, two and three as they are the key points for any contracts.

2.1 Alignment of the service descriptions

Service Desk and On-site Support have been separate departments for several years, and now there has been a change in the organization where ITSD & On-site are merged under joint organization unit called delivery and service ownership. This reformation will change the oncoming process since on-site support will be in the same team as Service

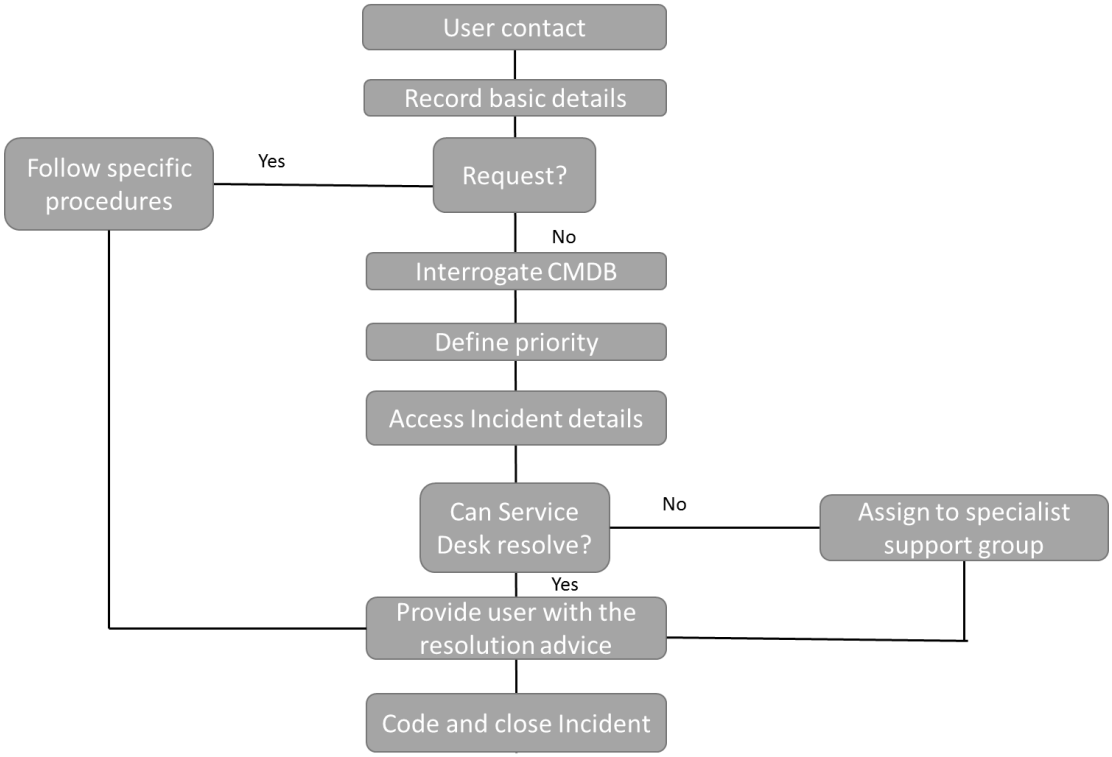
Desk. As well as these two are merging the self-service is increased for end users to work as the level 0 support for themselves.

Firstly it's required to familiarize to the current roles and methods of service desk and on-site support. Creating a common service description for the both entity, Service Desk and On-site it requires lot of work and modifying daily processes. When talking about global service where locations are nearly in each country those agreement has to be very well defined. It is clear that if something is not defined in the service description it means that service or task does not exist. RACI is one of the tools which helps when defining responsibilities in both companies.

2.1.1 IT Service Desk

ITSD or IT Service Desk is the SPOC(Single Point of Contact) for all end users in the company and also external users which can be customers, consultants etc. Service Desk is also level 1 support in the company. This means the end user contacts the Service Desk as their first and only contact for support, rarely the end user is required to be in contact with other IT teams. Having a separate Service Desk is almost mandatory in larger companies in today's economy (IT Service Management, 2014). There are several ways for the end user to reach Service Desk as by phone, email, self-service portal or chat.

Service Desk is following ITIL therefore ITSD is appointed to address incidents and service requests. These two differ from each other in tasks, i.e. where incidents include password resets and service requests includes requesting an item, a device or a software (Techtarget, 2010; IT Service Management, 2014).
The process in picture 3 is being used in ITSD on a general level (Assirati B, 2005).



PICTURE 3. Service Desk flow chart (Assirati B, 2005, 94, modified)

Service Desk units are located in four different countries: China, Finland, India and Poland. Because of the wide covering area Service Desk is capable to assist with multiple different languages.

TABLE 1. ITSD service area and languages

Location	Size	Service Languages
China	4	Mandarin Chinese, English
Finland	11	Finnish, English
India	20	English
Poland	13	French, German, Russian

Level 1 support from Service Desk contains responding to the end users contacts with previously mentioned methods. Keeping FCR (first call resolution) as high as possible is one of the primary targets for Service Desk. The task is required to be completed during the first contact from the end user, i.e. a password reset is done immediately after required information has been given to the agent and the new password is given to the end user. It's important for the Service Desk agents to have the mindset that all the employees are their customers, end user. The end user can and will vary tremendously for each contact since the forest company has multiple level personal. From production site to a high level office employee.

2.1.2 On-site Support

On-site Support is level 2 for end users in the company. As it was seen in picture 3 if ITSD cannot solve the issue it will be assigned to a specialist group. On-site Support is one of the multiple different specialist teams. On-site Support teams are located nearby the end users so they are able to go to their location for support. Factories and mills belong to business which requires them to have local on-site support within the production site, whereas the standard offices may have a shared support team. Although larger offices for example the headquarters have dedicated support in its location (Service Delivery Manager, 2016).

On-site support's essential target is to manage and resolve incidents & service requests as swiftly as achievable (Assirati B, 2005, 29). Results can be seen as end user satisfaction percentage and in business impact & downtime (Assirati B, 2005, 35).

All the supplier personnel providing On-site support must be able to speak and understand the local language where such employee is providing the service. As well the OSS personnel are to work jointly with Service Desk to provide unified support for the client's end users and business operations. The supplier has classified support for all the sites to be Dedicated engineer or Dispatch engineer support based on the following parameters to arrive at an optimized support model for the client. Which means that OSS services coverage is 100 percentage either by dedicated or dispatch engineers (Internal OSS, 2016).

On-site support has an on-call service to respond and resolve the client's Command Centre confirmed critical incidents. Reacting can be remotely working on the issue or visiting a dedicated site in case of On-site support is required to resolve the task. The target for the service is to get the incident identified and resolved as quickly as possible. The supplier and client have agreed for the service to be 24*7 and the current response time for critical incidents is within 2 hours in all of the large mills (Internal OSS, 2016).

2.2 Service-Level Agreement

SLAs are built around the service design for the customer. In this situation the forest company is the customer. The SLAs are negotiated according to the priority, and it's based by the impact on the business and the criticality of the incident or service request (Assirati B, 2005, 76). The higher the priority is, the sooner the incident or service request is vital to be taken care of. For this reason priorities are categorized into different levels. A vast amount of the tickets are lower priority which are taken care by ITSD.

UPM IT Incident Priority Matrix			
Urgency Impact	High	Medium	Low
Significant(whole of UPM)	1	2	3
Moderate (sub-entity of UPM)	2	3	3
Low(single person)	3	3	4

PICTURE 4. Standard Priority matrix details (Internal Operations, 2016)

Significant priority (1) means total failure of a system for an user group that results in the complete disruption of the client's business process and no other bypass is available. For example a business critical process interruption with a major financial impact and there are no possibilities to replace the functionality with a temporary workaround. (Internal SLA document, 2016).

High priority (1) is a total failure of a system for an user group that causes a serious disruption to the client's business process but for which an emergency measure and / or a workaround is possible. For example a business critical process interruption occurs to a significant financial tool and there is a secondary tool accessible during the system recovering (Internal SLA document, 2016).

Medium priority (2-3) is a failure of an individual service, that only results in a minor disruption. A slight adverse effect on the client's business and slight or no impact on business process. Workaround might be available but only for a limited period of time. For example incidents affecting a single user or a workstation (Internal SLA document, 2016).

Low priority (3-4) means a personal service or process is unusable and alternative method is available. There is no adverse effect on the client's business and there is no impact on the business processes. An example case is that end user's external display is not working but he or she is able to work using only the laptop's display (Internal SLA document, 2016).

It's important for the supplier to be capable to meet the negotiated targets. If the targets cannot be met, the SLAs are worthless and it will lead to dissatisfaction and possibly to a contract termination (Assirati, B, 2005, 23). According to Bob Assirati (2005, B, 37) baseline data should be gathered for an approximately for two months to establish a applicable sample is accessible for an analysis.

Service Desk and On-site Support receives service credit as SLA targets are being accomplished within the acceptable time. Service Credits will be calculated from the Service Desk and On-site Support monthly invoicing (Internal Support Services, 2016). Regarding the cost of the SLAs it is comparable to how strict the SLA targets have been set by the client

2.2.1 Simplification of the Service-Level Agreement

As there used to be different SLA targets for both ITSD and OSS, new ones are required to be able to create a pricing model for the SLAs. Creating one billing custom will make the SLA contract more simpler for the supplier and also for the client to agree on. Combining ITSD's and OSS's SLAs has begun its unification as the new SLAs are being currently discussed. As the Service-Level Agreement negotiations are ongoing the target goals should result to be more achievable. The support's resource capabilities are grown and it can lead to an increase to FCRs accomplished.

SLA problems may have the solution to success with any kind of hardware maintenance plan. Negotiating a great SLA can be critical for success and simplified contract models can and will help (Vegh, J. 2016).

As end-to-end SLA is growing to be one of the largest topics of the IT experience for the end user perspective. This means how the complete process is gone through from the start of the process to the end of it. For it to be possible the tasks are required to be run proficiently. As well as monitoring and measuring said SLAs is a high priority since it would lead to identifying weak spots of the service.

Capabilities to measure the SLAs are existing in the current service management system and a new way to collect feedback for incidents and service requests has been implemented. The goal with the new feedback system is to improve the communication to the end users on the enhancement actions made based on the end user's own feedback and comments (Process Operations Manager, 2016).

2.2.2 Process Harmonization

Service desk and On-site Support are going to receive common SLA timers for achieving the targets as mentioned earlier. There are a few different ways for to enhance the current SLA process harmonization. Some of the changes are directly coming from the unification process and renewal of the system (Internal Support Services, 2016).

Response time for phone and chat contacts measures the percentage of phone and chats made by the end users to the Service Desk that are answered within the applicable timeframes. Primary target is to have greater than or equal 85 % of phone calls and chats to be answered within 30 seconds. Additional target is to have greater than or equal 95 % of the contacts to be answered within 5 minutes if the primary target fails. Initial response time for emails is measured by a different standard. Email's primary target is to have greater than or equal 80% of the emails to be responded or created a ticket within 2 hours. And additional target is for the emails be responded within 4 hours in greater than or equal of 98 %. Additional target are not applicable for Service Credit (Internal SLA Document, 2016).

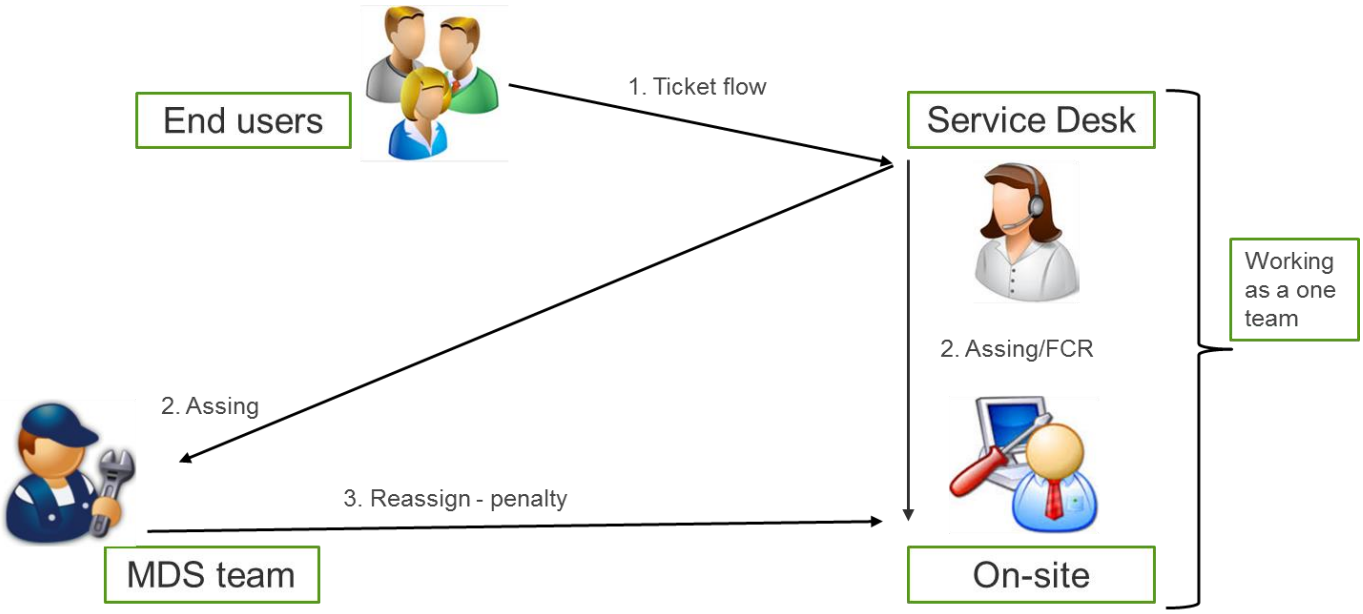
The current average ticket handling time per agent is approximately 20 minutes per ticket. Which should mean all the tickets that are capable to be handled in Service Desk will accomplish FCR. The requirement for FCR is the task to be resolved within 2 hours of

the ticket's logging and it's valid for all of the contact channels – phone, email, web ticket and chat (Internal SLA Document, 2016).

2.2.3 How to reach true end to end for users (Key Performance Indicator)

Service Desk has Ticket Ownership for Non-Critical Incidents and requests.
Escalation process is part of ticket ownership and it is done by a personal contact by chat or e-mail to the following personnel in order: Assignee, Assignment group manager, Vendor Service Manager.

To restrain and reduce incorrect ticket assignments from service support to MDS (Master Data Services) teams and vice versa a sanction for these is premeditated to take place. What kind of a sanction it will be is still to be decided but a few examples are being discussed. The current process idea for ticket assignments can be seen in picture 5.



PICTURE 5. Ticket process from an end user to service support and MDS teams (Service Delivery Manager, 2016, modified)

The sanction for incorrectly reassigning tickets to assignment groups is considered by the client on what is could be. A percentage reduction on the overall invoicing is one of the possible choices. Implementing a reward for the supplier when the targets are met, and might not need to be a financial based. As the corporate industries are growing people are

valuing recognition and praise. These are the key to having greatly motivated employees and motivation leads to better results (Mends M. 2016; Lipman V. 2013).

Having growth in the working motivation for the service support agents can lead to fewer mistakes and overall improvement in ticket handling. As well could be seen an increase in tickets resolved within the SLA targets. At the moment tickets are being resolved but it's unfortunately frequent that SLAs have been already breached (Delivery and Service Owner, 2016).

Tracking tickets is being updated for end users to be able to monitor their own ticket's process easier from one portal. That portal is MyIT, where the end user will be able to see if the ticket is already opened and assigned. Basically what is the currently on the task list on the ticket. This feature with the new feedback service will help to increase the end-to-end experience (Service Delivery Manager, 2016). There will be more information on MyIT in chapter 4.

2.3 RACI processing method

RACI model is utilized to define roles and responsibilities for a project or a task. RACI is used for planning and following up the plan. Different targets for the project are separated into own sections and then assigned for the roles (Moskowitz, 2015).

Responsibility is signified for R and the role is usually the one performing the task, activity or process. The role has to be assigned at least once but it can be distributed for several personnel (Tutorialspoint, 2016).

A is defined the role accountable for the task and whom for the responsible one(s) are accountable for. Accountable role is appointed for one person only and he or she will be in charge of the whole project, task or activity (ITIL RACI Matrix, 2016).

C is defined for the role of consulted which means personnel who are not precisely engaged in the project but are providing help and input on an as needed basis. The amount for consulted roles are undetermined as there can be from one to several (ITIL RACI Matrix, 2016).

I is meant the role of informed. The role that are being kept up to date on the task or process (Tutorialspoint, 2016). This is the single role which is one way only (Soares, R).

It's business critical to have the RACI negotiated and agreed on a specifically detailed standard. If something goes wrong or there are any uncertainty it will be confirmed from the contract. As the contract is detailed there will be no misunderstanding on whose responsibility it is. In picture 6 it's showed what kind of tasks are required to be specified and this is only a small sample of the whole Service Desk's RACI.

Task no:	*Task*	*Supplier*	*Client*
	Incident and Request Management		
1	Provide Helpdesk support to End Users via telephone/ email, web and chat	R,A,C	I
2	Provision adequate manpower to cater to projected contact volumes	R,A,C	I
3	Logging of end user contacts	R,A,C	I
4	Assign tickets to appropriate support group as per skill matrix	R,A	C,I
5	Troubleshooting and assigned incidents as per Standard Operating Procedures	R,A,C	I
6	Walking the end-user through a solution via telephone, email or chat	R,A,C	I
7	Remotely taking-over of PC to resolve the issue- first and second level	R,A,C	I
8	Dispatching of Onsite support personnel, if required	R,A,C	I
9	Escalating the issue to more specialized technical teams for resolution.	R,A,C	I
10	Set expectation of customer for tickets being dispatched	R,A,C	I
11	Notification and escalation to higher levels of support	R,A	C,I
12	Update worklog with current status of trouble shooting steps and other pertinent details	R,A,C	I
13	Resolve tickets on successful incident resolution after user confirmation	R,A,C	I
14	Send regular incident status update notifications to end-users for planned and unplanned	R,A	C,I
15	Maintain escalation list(s) for maintenance and warranty contracts and others escalation	R,A,C	I
16	Maintain updated process and procedural documentation	R,A,C	C,I
17	Interface with Onsite support teams for appropriate call resolution	R,A,C	I
18	Answer " How- To" questions	R,A,C	I
19	Provide Helpdesk Support via Web interface through Supplier's Self-Help portal	R,A,C	I
20	Escalations of incidents	R,A,C	I
21	Regular Communications to User Community for incident updates	R,A,C	I
22	Proactive user communication, updating IVR greetings to notify all callers of current issues and resolutions	R,A,C	I
23	Provide End Users with an Incident references number to enable the End User to track the status of the Incident.	R,A,C	I
24	Make use of the Known Error Database to confirm correct Resolution or Workaround and feedback any missing, unclear or incorrect information to the relevant support team.	R,A,C	I
25	Coordination with third party vendors or internal Tier 2 / Tier 3 teams	R,A,C	I
26	Proactively chasing Tier 2 and Tier 3 teams where such tickets are lying in Helpdesk queues as those tickets cannot be transferred for agreed reasons	R,A	C,I

PICTURE 6. A sample from the current RACI model for Service Desk (Internal RACI document, modified)

The new RACI for both ITSD and OSS is not going to be changed considerably rather than the two will be more likely merged. Some modification however are in negations (Internal RACI document, 2016).

2.4 Pricing model

Incidents and service requests have had a separate cost for each one and ITSD pricing is currently based on the ticket volume. Requests were more expensive than incidents by few euros each. Whereas on-site pricing is based on the separate components (Service Delivery Manager, 2016).

New pricing will be followed by full time equivalent –model which is completely fresh method for ITSD. Instead of the current ticket based pricing model the prices are set to follow the current personnel quantity. Flexibility for ascending and descending so the price will not be changed if the baseline personnel stays within the range. The baseline unit quantity is being kept up to date in a monthly basis (Service Delivery Manager, 2016).

The pricing model will be made dual by production services and standard office services. Production services will be contained by local applications, on-call services, special workstations, site infrastructure services and the local application's pricing will be based on the FTE and the actual ticket quantity. Internal and external employees and standard device support is included in the standard office services (Service Delivery Manager, 2016). Only one invoice policy will be used for the renewed model with these modifications.

Price per one user is estimated for internal employees only as external employees might not be using any devices that requires any support from ITSD or OSS. For example the contractors at the mill sites won't be required to have the support.

	Internal employees		Unit price deadband (no change in unit price within the boundaries below)	Unit price deadband (no change in unit price within the boundaries below)	(agreed charge in unit price within the boundaries below)		(agreed charge in unit price within the boundaries below)	
Service component category	Baseline units	Unit Price €	Downward flexibility % charge from baseline	Upward flexibility % charge from baseline	Downward flexibility % charge from baseline	Charge in unit price %-unit rate for decremental units will increase by changed percentage	Downward or upward flexibility % charge from baseline	Charge in unit price %-unit rate for decremental units will increase by changed percentage
K-id	15 000	1 €	2 %	2 %	4 %	2 %	6 %	4 %

PICTURE 7. An example of the new pricing method without authentic values(Service Delivery Manager, 2016, modified)

In the picture 7 it is showed how the price may change if and when there will be an increase or a decrease in the employee quantity. The price won't be changed if the flexibility is within ± 2 percent of the original baseline unit quantity. For example if the employee quantity will be decreased by 4 percent then the invoiced unit price would increase by 2 percent for the surplus amount only.

3 COLLABORATION BENEFITS AND CONSEQUENCES

The current working methods will be brought changes to the combined On-site Support and IT Service Desk. The organization will be needed to adjust for the both teams which can be a challenge on employees and a process level. The targets and goals are set by the client which in this case is the forest company. The quality and quickness of the service support is determined on what kind of support the client is asking for. The longer an agent is being worked on the task or moving the case forward in the process, the longer it takes and it affects the service quality and time (Delivery and Service Owner, 2016).

One of the main goals for Service Desk and On-site support is to complete the task in FCR, which is within two hours from first contact from the end user. If the FCR is desired to have on a high percentage it's required to consider are the current employees competent enough (Delivery and Service Owner, 2016).

3.1 On-site Support & IT Service Desk synergy

More access rights will be given to the Service Desk's agents which will directly affect their capability to accomplish FCR targets. As the scope for Service Desk is grown with this merger it might be possible and useful to designate an agent or two in each location, or at least in Finland, to work on simpler OSS tasks. Freeing time is being made by having IT Service Desk and On-site Support agents working in the middle to free time for the other On-site employees. The FCR rate will be increased for Onsite support as primary target and the agent's knowledge & experience grows in the process (Internal OSS, 2016).

The communication between these teams should be improved on a team lead tier or other SPOC where they in both ITSD and OSS discuss necessary details from their tasks. For example the issues which are being encountered the most during the week or month, depending how frequently the leads would communicate with each other. The data that is gathered and combined they can reflect on it and how to improve those fields(Delivery and Service Owner, 2016). The issue here where the extra resources is found to have and

keep the meetings since it needs to be worthwhile for it to be funded. And if the communication happens it is needed to happen on their own behalf since the client, forest company, can only encourage for it to happen.

Governance model is required to exist and work since crucial for ticket's life cycle as it will be defined how the assignments and escalations are being made. The required actions are being executed in the correct sequence and the tickets will be received by the correct personnel in acceptable time.

3.2 Tools and Processes

The current process will be changed since the process cannot be kept the same when the new team is worked together. Ticket assignment process will be modified as the IT Service Desk and On-site Support are one and the on-site won't be used in the assignment groups anymore. A higher FCR will be resulted due to this change and also to a lower group hop count which has been an issue from time to time. The unnecessary assignment won't be encountered from Service Desk and On-site support due to them being one team (Delivery and Service Owner, 2016). This change is required for the current process to be modified to on the IT partner's side as it's ultimately their teams in question. The goal to reduce group hop counts is allowed for the client to request.

Some processes and tools are set to be in place and available for use in Service Desk and On-site Support to fasten their ticket handling time. Remote tools are identified especially beneficial in handling time, such as using Skype / Lync, accessing rights with Active Directory & modifying group policies and being able to access the end user's workstation with remote assistance tool. A positive feedback from the end users is received from being able to use these tools. It's been under planning to get more automatization tools to help the agents or other ways of working to enhance the support experience.

A new process called Smart Hands concept is negotiated and developed which has been marked as important on the client's side. When support is contacted by an end user for help and a ticket is been created this is where Smart Hands concept would take place. In limited operations such as local networking changes, server changes or printer configurations. For example when a new printer is received at a mill from a manufacturer the On-

site agent on the case could make the necessary changes. Modifying the router's port vlan, static IP address and from the server side to install & modify the printer's drivers and queue for it to be functional over the network. All of this will be done in the same day as the printer is delivered on site and the end user experience would pick up (Delivery and Service Owner, 2016). The current process is being used to take longer than one business day to be accomplished. Although there is a negative side to the Smart Hands idea which requires the OSS agents to have larger access rights than they do at the moment. More rights can be security risk if the support agent is not competent for the tasks since they might accidentally do some harm to the devices. For this reason the personnel whom to have increased rights should be thought in detail.

3.3 Cost Changes

As the pricing method will be based on the FTE in the oncoming contract the ticket amounts won't affect the expenses for the forest company at the end, rather it will have a larger effect on the IT partner. Since the charging is based on the quantity of client's internal employees (Service Delivery Owner, 2016).

Reducing ticket amount will be used as mandatory target as the IT seeks to help and ease the life for their business side end users. The self-service will be increased in the current plans and it will be affected greatly in this path.

It comes back to the client's demands as the client will be needed to know what kind of service quality is enough for them. The better the service support is required to be, it's going to be more expensive as the supplier company is enforced to hire competent people for the role. New start level employees are hired and it will be led to lower expenses but even with a great documentations and instructions the employees won't be enabled to become high level IT specialist without experience. But to have expert level competency, it comes from experience and time (Service Delivery Owner, 2016).

Resource reductions will be made for On-site supports dispatch sites as numbers are being removed due to planning principles. Only large mills and large offices are being gained to have dedicated support agents. Supplier will be worked together with the client to jointly plan and drive efficient On-site Support's usage to fulfil client's business needs.

Currently operations are executed with approximately 70 FTE globally from On-site support's side. Dispatch sites are included in the quantity. The SLAs can possibly be breached due to there won't be enough employees. Although this is accounted in the SLA target levels (Service Delivery Owner, 2016). This will be led to an increase for IT Service Desk responsibility in the daily basis tasks

4 NEW WAYS OF WORKING

Brand new practices and ideas for service experience enhancements are being made to happen in the near future. Some of these are designated for the direct end user's usage and to help their support experience. The goal is improved first stage of support, named level 0 support, and to enable the end users to execute some tasks on their own devices.

The new functionalities will be allowed for the new service support's agents focus on the more challenging tickets and tasks. When the simpler routine chores can be dealt by the end user in question.

4.1 Zero Touch

There are plans for the devices to be installed by the end users. These devices are owned by the end users and the devices includes desktops, laptops and mobile phones. This will be done with installation images which end users can import to the device. The new service support will be benefited directly from this since it will free the agents for other tasks. The method on how the project is been begun is not completely decided at the moment. The device will be inserted by the service support agents and afterwards the said device will be sent to the end user, is one suggestion for this service. Or if the devices will be pre-installed by the manufacturer the image could be already in place, e.g. nowadays laptops have preinstalled operating system and necessary applications when it's bought and booted up for the first time (Delivery and Service Owner, 2016).

Current installation process is planned for the On-site Support employees to install the device from start to finish. Although Images are used it still takes at least one to three days for them to get the device ready, plus the delivery time to the end user when it is installed. Delivery time is scheduled with each end user separately and it can be difficult since end user's own schedule may vary as they don't have the time for the On-site. End users are being enabled to install the device themselves easily and it will be led to save a lot of time for both On-site agent and end users, as well as money will be saved.

Level 0 support is will be lined with this service support method. If any problems are encountered the end users are able to contact the service support team whom will assist the end user.

4.2 Microsoft Intune cloud-based management tool

Microsoft Intune, a cloud-based management tool, is designed for mobile devices and desktops & laptops. Intune is used to assist organizations' employees with access to data, applications and resources from their chosen device. Intune is built around the idea for bring your own device (Rouse M, 2015). Intune's users are provided to enroll their devices to install all the required application by the self-service portal. The most popular mobile platforms are usable by Intune. All the settings will be set up when the device is enrolled, including Wi-Fi, VPN and E-mail profiles. These features are recommended to use with the included security setting management, remote actions will be contained such as passcode reset, device lock, data encryption, and full data wipe to protect corporate intel if the device is stolen or lost (Microsoft, 2016).

With Microsoft Intune's Mobile Application Management (MAM) the IT is allowed to protect the company data without controlling the end users actual devices. Access can be provided to mobile apps and office 365 data while helping to prevent data leaks. For more confidential data protection can be extended to file level with the Azure rights management. By using Intune the IT will be enabled secure access to the corporate Office 365 data for internal and external users without requiring to manage their devices. The process for usage is not noticeable for the users if compared to their normal use (Intune, 2016).

The devices are provided to the employees by the forest company, it is rare for an end user to bring their personal device, though some do have their own devices. Own devices are brought and used by the external users more commonly than using a device given by the forest company.

Microsoft Intune is planned to replace current Mobile Iron software for the employees in office facilities. The negotiations are being occurred currently with the supplier and the client, and the testing is scheduled to begin in April. More information will be received on the project as the testing is proceeding

4.3 Market Place

When MyIT will be imported to the forest factory's intranet an application store for the end users could be implemented. Where the end users will be able to choose a program from a designated site to be installed on their workstation. The installation will be done via an image package as like it's used in the current system in Miradore. The amount of tickets will be decreased since the end users are enabled to complete their tasks themselves (Service Delivery Manager, 2016).

MyIT is designed to be the new go-to portal for end users in IT related matters. Ticket creation and tracking are set to be the main business goals and the self-service will be increased as well with these goals And service related information to be found quicker and easier by the end user. The new portal is meant to close the currently existing ServiceNow portal, and IT HUB homepage will be renewed and modified to function with a new and a layout (Internal document MyIT, 2016).

Freeware applications that are approved by the IT would be available instantaneously for the end users. Cheaper licensed applications will be assigned to be accessible this way too. Expensive application are required to have an approval from the employee's manager before the application will be installed to the end user's workstation. The approval is required so the installations quantity wouldn't be unnecessary high, and the invoicing will be effected positively due to this.

All the programs will be listed alphabetically or by categories in the market place's store. Application's price will be listed next to the application in the store. The programs won't be requested so frequently as the end user knows the cost. The program then won't be demanded due to the end users the cost does not match their level of usage (Internal Apps, 2016).

The result is planned to visually look like and online store where the end user chooses their applications and continues to a checkout and purchases the application. The predetermined image is sent to the device and the installation begins immediately.

4.4 Microsoft System Center Configuration Manager

Miradore, the current database system, will be replaced by the new Microsoft System Center Configuration Manager but its launch date is not scheduled yet other than in the future. End user access to device & mobile applications, corporate data, servers and devices will be controlled by the IT from a single console by integrating Microsoft SCCM (System Center Configuration Manager) and Intune. From the console the required updates can be scheduled to be installed by IT with the deployment rings. Updates to different groups in the organization is divided easily and simply with the deployment ring. From a single management console it is allowed to configure and secure security policies. In SCCM there are included dashboard and reporting capability tools (SCCM, 2016.) Reliability, time efficiency and security are seen as the best aspects for using the Configuration Manager. The devices will be kept up to date automatically which keeps the security protocols from being outdated and time is saved for the IT employees by using this feature (UNL, 2016).

The integration with MS Intune is allowed with all three cloud-based mobile devices platforms, Windows, iOS and Android, to be managed from the same management console (MS SCCM, 2016).

Although the current database Miradore is being replaced with this Microsoft one, it won't replace it completely as special workstations will be kept in Miradore for now. Device lists are being gathered and made as preparations to the transfer to SCCM The test phase is planned in the near future which will answer the questions if the new database system is better than the current one. How the reports will be made and covered is one of the interesting questions and if the promised software updates will be used as clearly and easily as featured.

4.5 Self-Healing as service solution

Self-Healing is developed to be a proactive identification of an issue when it occurs and fixes the issue automatically by doing a standard operating procedure automation (Internal HCL Tech, 2016). End users are encouraged to find the solutions and resources to their problems or tasks is the main target for Self-Service. Automatized tools for Service

Desk and On-site Support are set to be built to fasten and ease their day-to-day tasks and processes as the secondly valuable target. As well there will be developed self-healing tools and methods to keep the devices secure and up to date without disturbing the end user (Service Delivery Owner, 2016).
New capabilities to monitor the corporate devices' security and Windows updates will be brought with the new SCCM.

Previously mentioned Zero Touch and Market place are implemented to increase the self-service side of this for end users with the already existing Ask and Share forum within the company's intranet. Any IT related questions from the end users will be answered and discussed on the Ask & Share forum. Generally an opinion or help is asked on the forum and there are designated IT employees to answer the questions on the Ask & Share forum. Another IT employee will be alerted to take a look at the issue if the question is out of their scope. A List of top tips is included in the forum available for everyone, there are some of the most commonly faced issues and fixes for them. Different kind of instructions are listed in the self-service section in the current IT HUB for tools and programs, for example Skype, Outlook, MS Office applications, mobile devices, Internet browser and how to apply for access rights (Intranet HUB, 2016).

Support is tasked to advance fixes on a mass basis to targeted groups which will run beneath the normal end user's activities. The fixes and updates will be monitored by the support so the self-healing will be efficient. The actions are to be scripted, one click method, for an automated content providing fixes to commonly encountered support issues (Internal HCL Tech, 2016).

As these targets are achieved the human error and effort will be reduced due to the automatization processes. End user experience will be improved as well as end user & agent optimization. Which will be resulted in cost reduction since ticket amount will be decreased and agents will have more time for other tasks to work on (Internal HCL Tech, 2016).

5 CONCLUSIONS AND DELIBERATIONS

The entirety of the change in the service support is going to be step in the better direction. Although the transition won't be instant or simple but it will increase the end user experience when thinking about the support in the general view.

The issues I see are in using the tools and processes to its fullest benefit and some sites might not be able to use the co-operations. At the productions sites, e.g. mills and factory sites, IT Service Desk probably cannot help the On-site Support with the local specific applications as they vary from each to site to another. But they could be able to fasten the process for the OSS agents and take care of the ticket more thoroughly. For example ITSD could be working with the documents, especially with the Smart-Hands concept on its way.

Otherwise there won't be much of a change in the tools they're using, for both ITSD and OSS perspective. The remote control tools are already in use, including Skype, Active Directory, group policies and the ServiceNow portal.

ITSD and OSS working together generates questions how the Service Desk can use the new access rights and methods. Since at the moment the average ticket handling time is 20 minutes as mentioned earlier in the chapters. It's something that supplier would need to figure out, how to make it function with the OSS rights. For example there are only a few ITSD agents in the evening or night shift and they then won't have the time do more thorough tasks since they would have the standard tasks to be taken care of as well. This issue occur in the regular day shift as well, since the contact volume usually is very high. Which results the ITSD agents move the ticket forward to other teams. In comparison On-Site employees have more tight procedure as they are keen to take the task to the finish line and resolve it.

Might be for the best to have only a few employees from Service Desk to be appointed to the so-called OSS role. To have larger access rights and more responsibility. This would help the few agents to adjust to the new ways of working. If the rights were to be spread across the ITSD the first ones would be able assist and teach the others since they have gained experience.

As the IT support's cost & scalability is moving towards cloud services and self-service, mobility is the way to go in the future. Personally I perceive self-service being a big part of the modern IT support since end users are getting more self-aware and wish to troubleshoot the issues themselves. One issue comes to mind regarding the self-service's possibility to serve our production sites. Majority of the forest company's employees are working in the production sites and these location's infrastructure isn't enough to enable the services for everyone to use. Even if the service is promoted well enough for them to want to use it in the first place. For the office employees getting a self-service opportunity will only increase the end user experience and the support quality.

As the expenses are going to be FTE based and when the price has been set between the supplier and the client. There are little to none possibilities to make radical changes to the costs. The saving standards are quite strict and if we are to seek to get price reductions the level of service, quality and scope would need to change. All of these are components coming from the client's side. It might come to that IT would discuss with the business if they wish or can reduce some of the IT services. Since it's highly plausible that from the supplier's side there won't be any business savings, unless we cut some of the requested services. The suppliers goals to create revenue and they most likely are looking to get increasing revenue year by year. Basically all the savings are coming from the contract negotiations which should be significant versus to the current prices.

The ticket assignment process is in need of a renewal and currently in negotiation is implementing the reward / sanction system for the assignments. Receiving a penalty for percentage of the cost would make the agents and MDS team more careful where to place the tickets. But there is the possibility that the agents still will do the same process of moving the tickets forward as fast as possible. Since the ticket volume is high for every individual agent. As well the reward might do wonders for the motivation, all kind of bonuses would be a positive thing. Whether it is a financial bonus or a commendation one it should be notable.

In conclusion the I believe the new merger of Service Desk and On-site Support will lead to a better support experience for the end users and for the IT as well. The change is to a good direction and for the targets to be set high is good for the improvement. Having to work towards something is more motivating than just maintaining one level.

REFERENCES

Assirati, B. 2005. Service Support. 10th edition. London: The Stationery Office.

Delivery and Service Owner. 2016. Interview 17.2.2016. Interviewer Jarno Kirjavainen

Internal document MyIT. 2016. MyIT Plans

Internal HCL Tech. 2016. Self Heal Solution for Service Desk. Presentation

Internal Operations. 2016. Incident Management Process Runbook

Internal OSS. 2016. Description of Service for Onsite support

Internal RACI document. 2016. RACI LOT 3 Execution

Internal SLA Document. 2016. Service Level Agreement Support Service

Internal Support Services. 2016. Service Credits & SLA's - Support Services

Intranet HUB. 2016. IT HUB.

Intune. 2016. Simplify management of apps & devices. Read 15.2.2016. https://www.microsoft.com/en-us/server-cloud/products/microsoft-intune/overview.aspx

IT Service Management 2014. ITIL® and IT Service Management. Read 7.1.2016. http://www.itil.org.uk/index.htm

ITIL RACI Matrix. 2016. ITIL RACI Matrix. Read 26.1.2016. http://en.it-process-maps.com/products/itil-raci-matrix.html

Lindfors, A. 2002. IT-sopimukset. Read 20.1.2016. http://www.cs.helsinki.fi/u/eahyvone/courses/ohli/opro02/

Lipman, V. 2013. New Employee Study Shows Recognition Matters More Than Money. Read 11.3.2016. https://www.psychologytoday.com/blog/mind-the-manager/201306/new-employee-study-shows-recognition-matters-more-money

Mends, M. 2015. Is There More to Recognition than Awards, Money and Praise. Read 11.3.2016. http://www.qualityoflifeobserver.com/content/there-more-recognition-awards-money-and-praise

Microsoft. 2016. Microsoft Intune. Read 2.2.2016. https://www.microsoft.com/fi-fi/server-cloud/products/microsoft-intune/features.aspx

Moskowitz, D. 2015. What is a RACI model used for. Read 26.1.2016. https://www.quora.com/What-is-a-RACI-model-used-for

MS SCCM. 2016. System Center Configuration Manager and Microsoft Intune. Read 16.2.2016. http://download.microsoft.com/download/5/D/B/5DBEBA38-8D5D-4119-

B2E8-B8369B74BF43/system_center_configuration_manager_and_microsoft_intune_datasheet.pdf

Rouse, M. 2005. Microsoft Intune. Read 3.2.2016. http://searchcloudprovider.techtarget.com/definition/Windows-InTune

SCCM. 2016. System Center Configuration Manager. Read 16.2.2016. https://www.microsoft.com/en-us/server-cloud/products/system-center-configuration-manager/Overview.aspx

Process Operations Manager. 2016. End to end for user, KPI. Email. Read 9.3.2016.

Service Delivery Manager. 2016. Contract negotiations. Presentation.

Soares, R. 2007. The RACI Matrix – Who… . Read 26.1.2016. https://itilblues.wordpress.com/2007/04/27/the-raci-matrix-whos-responsible-accountable-consulted-and-kept-informed/

State of Flux. 2013. Contract lifecycle management consulting. Read 14.1.2016 http://www.stateofflux.co.uk/consulting-contract-lifecycle-management

Techtarget. 2010. Service Desk definition. Read 7.1.2016. http://searchwindowsserver.techtarget.com/definition/service-desk

Tutorialspoint. 2016. RACI Chart Tool. Read 27.1.2016. http://www.tutorialspoint.com/management_concepts/raci_chart_tool.htm

UNL. 2016. Microsoft SCCM FAQ. Read 16.2.2016. http://its.unl.edu/desktop/microsoft-sccm-faq

Vegh, J. 2016. Keep SLAs in mind… . Read 10.2.2016. http://www.parkplacetechnologies.com/knowledge-center/blog/data-center/keep-slas-in-mind-when-establishing-maintenance-plans/