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BACHELOR'S THESIS

USER ASSESMENT OF THE PHONE CALL RECORDING SYSTEM NICELOG

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PREFACE

The study was made for Sampo Bank's contact center. I would like to thank everybody who gave their help to make the study possible. My family, Pyry and Päivi. The teachers at school, Seppo and Jonita. Everybody at Sambo Bank, especially Juha Ulpovaara and all the people who gave intervews.

In Helsinki 20.4.2011

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ABSTRACT

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The study was done to gather and analyze user experiences of the phone call recording system NICElog in Sampo Bank's Contact Center Helsinki. The study also explains technical details of the phone network used in Sampo Bank's Contact Center and sheds light on legal issues concerning phone banking and the recording of calls.

The main focus of the study were the interviews that were done with five team leaders who use NICElog in their daily work and also the interview with the director of the contact center of Sampo Bank Asko Mikkonen and the interview with Reijo Aarnio, the Data Protection Ombudsman of Finland. These interviews give a broad view of the daily user experiences of NICElog and the demands NICElog has to meet from the company's perspective and from the customers' perspective.

The phone network and what techniques it is based on was explained by Juha Ulpovaara and these techniques are explained in the study. The director of the study in the company, Juha Ulpovaara, also aided in compiling the interview questions and he also helped to decide who should be interviewed. The part of the legal issues of the study were done based on the conversations with Asko Mikkonen and Reijo Aarnio and also the official procedures of Sampo Bank.

The interviews were conducted with five team leaders and in the interviews it was found out that the phone call recording system NICElog has some problems for example user id related but other than those the image of NICElog was positive. NICElog is an essential program in phone banking but also a very efficient tool in improving customer service skills.

Keywords: NICElog, phone banking, recording of calls, interviews

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Tämä työ tehtiin, jotta saataisiin kerättyä ja analysoitua käyttäjäkokemuksia puheentallennusjärjestelmä NICElogista, jota käytetään Sampo Pankin Contact Centerissä Helsingissä. Työssä käydään läpi myös teknisiä tietoja Sampo Pankin Contact Centerin puhelinverkosta, sekä lakiteknisiä asioita koskien puhelinpankkia ja puheluiden nauhoitusta.

Työssä keskitytään pääosin haastatteluihin, jotka tehtiin viiden tiimin vetäjän kanssa, jotka käyttävät päivittäisessä työssään NICElogia. Haastatteluita tehtiin myös Contact Centerin johtajan, Asko Mikkosen, kanssa sekä Suomen tietoturvavaltuutetun, Reijo Aarnion, kanssa. Haastattelut antavat laajan kuvan päivittäisistä käyttäjäkokemuksista NICElogin parissa ja vaatimuksista, joihin sen pitää yltää niin yhtiön, kuin asiakkaan näkökulmastakin.

Työn ohjaaja yrityksessä, Juha Ulpovaara, avusti puhelinverkon tekniikoiden selvittämisessä. Hänen kanssaan laadittiin myös kysymykset, joita kysyttiin kaikissa haastatteluissa, sekä haastatteluiden kohdehenkilöt. Työn lakitekniset asiat käytiin läpi Asko Mikkosen ja Reijo Aarnion avustuksella, jonka lisäksi turvauduttiin Sampo Pankin viralliisiin työohjeisiin aiheesta.

Haastatteluissa tiimin vetäjien kanssa huomattiin, että puheentallennusjärjestelmä NICElogissa ilmenee joitakin ongelmia, esimerkiksi käyttäjätunnuksiin liittyviä. Muuten ohjelmasta oli positiivinen kuva. NICElog on välttämättömän tärkeä työkalu puhelinpankissa, mutta myös erinomainen koulutustarkoituksiin asiakaspalvelussa.

Avainsanat: NICElog, puhelinpankki, puheluiden nauhoitus, haastattelu

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1 INTRODUCTION

This work was initiated by Sampo Bank to find out how well the phone call recording system NICElog meets the requirements set for it. In a quality test carried out in the beginning of September 2009 it was noticed that there were a few problem areas and that the requirements may not have been reached.

The first chapter introduces the phone call recording system called NICElog and gives a technical overlook on the on the phone network at Sampo Bank, which is based on VoIP and MPLS technologies and therefore these are explained. Listening to calls in a banking environment introduces legal problems conserning the validity of a spoken contract and the law of banking secrecy. These issues are delt with daily and must be handled appropriately when listening to calls with NICElog and this is why these matters are gone through in the first chapter of the study.

The biggest part and the main focus of the study are the user experiences of the people who work with NICElog and consern themselves with the legal issues explained above. A variety of people were interviewed to chart out the experiences and so rhe following chapter explains the methodology, i.e. how the interviews were carried out, who was interviewed and why and what kind of questions were asked and why. Then, the results from the interviews are presented and analyzed.

Finally, the discussion and conclusions part of the study draws together the information of the interviews and sheds some light on the current situation with NICElog and its users.

2 THEORY

In this chapter technical and theoretical issues are handled. The program used to listen and record phone calls, NICElog, is introduced and also the phone network of Sampo Bank which is based on MPLS and VoIP technologies is presented.

2.1 NICELOG

NICElog is multi-channel digital communidations recorder that ill simultaneously record and replay messages from multiple devices consecutively. [1] NICElog is used in over 8500 offices over the world and in over 3000 offices in Finland [2] There are approximately 200 up to 250 people working with customers via telephone in Sampo Bank whose phone calls are being recorded constantly.

NICE-system is PC based and it's applications run in Windows environments and this is also the environment used in Sampo Bank. There are different products of NICElog varying in price and supported features. The version used in Sampo Bank, NICElog, is of the highest price and with the most features. [2] A lot is required of NICElog since Sampo Bank deals with a daily amount of approximately 10000 phone calls when inbound and outbound calls are added together.

According to the NICElog specifications [3, 4] NICElog can record more channels at once than any other program available. Up to 480 channels can be recorded simultaneously. Total number of income channels is unlimited. [3]

The specifications of the latest version of NICElog, version 8.1, reads as following: In addition to its existing features, NiceLog will now support: up to 224 channels per unit, up to 38,000 hours of on-line audio per unit, a wide variety of archiving options including DAT, AIT and Magneto Optical (MO) media, high performance playback capabilities via speaker phone, multimedia PC, email and more, advanced system

redundancy including internal RAID-1 or RAID-5 storage, Hot Standby architecture, etc. [4]

There are multiple ways to record phone calls in NICElog version 8.1. Some of the features include:

Continuous recording

In this feature all phone calls in or out are being recorded. Used for example in security and risk control.

Automatic selective recording

In this feature selective recording is used to save memory. Advanced algorithms can be assigned to select which calls are recorded.

Manual selective recording

In this feature an agent using NICElog can press record button to start the record.

Real-time survailance

In this feature it is possible to check agents' or channels' status and do the wanted actions.

Quality control

In this feature random or consecutive calls are being recorded for quality control. [3]

This is just a scratch of the possibilities to record and store phone calls and set up the system in different environments but it gives the reader an overlook of different ways to use NICElog and the different tasks which can be done with NICElog which are helpful in the Contact Center of Sampo Bank.

In Sampo Bank the issue of the phone call can vary from technical guidance to sales conducted by over 200 employees in the Contact Center. In order to provide the best customer service and meet the expectations set by legal issues conserning spoken contracts and the law of banking secrecy, all of

these over a 10000 daily phone calls must be recorded. NICElog offers a flexible and solid way of doing this task and therefore this program is used in Sampo Bank.

2.2 TECHNICAL DETAILS OF NICELOG

In this chapter a technical overlook of NICElog and its architecture is given. In Figure 1 is a typical scenario of a NICElog architecture.

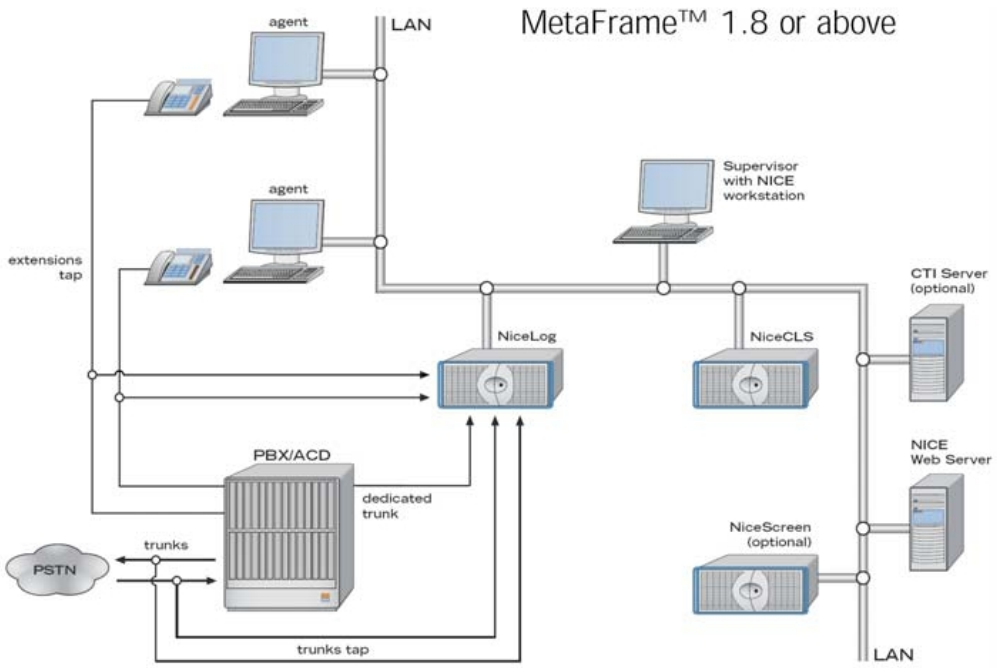


Figure 1: Typical NiceLog architecture [1]

In Figure 1 the agents represent employees talking with customers on the telephone. The agents are attached to a normal phone network which is in Sampo Bank's case a VoIP network and their computers are attached to a LAN-network. The NICElog system is set up so that it listens to the phone network but is also attached to the LAN-network so that phone calls can be stored to the NICEservers and so that the NICElog can be easily adminis-trated.

All recordings in the NICElog are made to the recorder's local hard disk and then stored to a different location based on recorder's configurations. Nice recording algorithms ensure that the recordings made are secure and unreadable as a single electronic file. Information can be stored on a HDD, tape or disk. NiceLog monitors all areas vital to the recording process and notifies if a fault is detected. [1]

NiceLog can record many thousands of mixed telephony, radio, audio and VoIP inputs with no restricion on the number of mixed devices. The NiceLog server has 10 PCI slots. 7 of them are available for installation of recording cards. [1]

Each Nicelog unit can be controlled locally directly with the NiceLog server. All user applications (Query, Monitor, Administrator and Supervision) and functionality of the system are delivered and accessed through a LAN or WAN network. Also remote maintenance, diagnostics and upgrades can be done. [1]

For security purposes the system utilises a locked down version of windows 2003 to optimise security. All accounts are administered by the system administrator. [1]

The users of NICElog in Sampo Bank of course almost only use the different applications of the program. Below is a list of the most commonly used applications and a brief description of them.

Nice Query allows the user to search an replay calls in an explorer type fashion.

Nice Monitor allows the real time listening of any channel on the recorder.

Nice Administrator provides full administration and configuration of the system

Nice Supervision provides a convinient one window from which supervising of all components can be done. [1]

All of these applications are needed in the Sampo Bank environment. A team leader listening to recorded calls mostly uses the NICElog Query application. In Figure 2 below a view of a everyday work situation with NICElog Query application is shown.

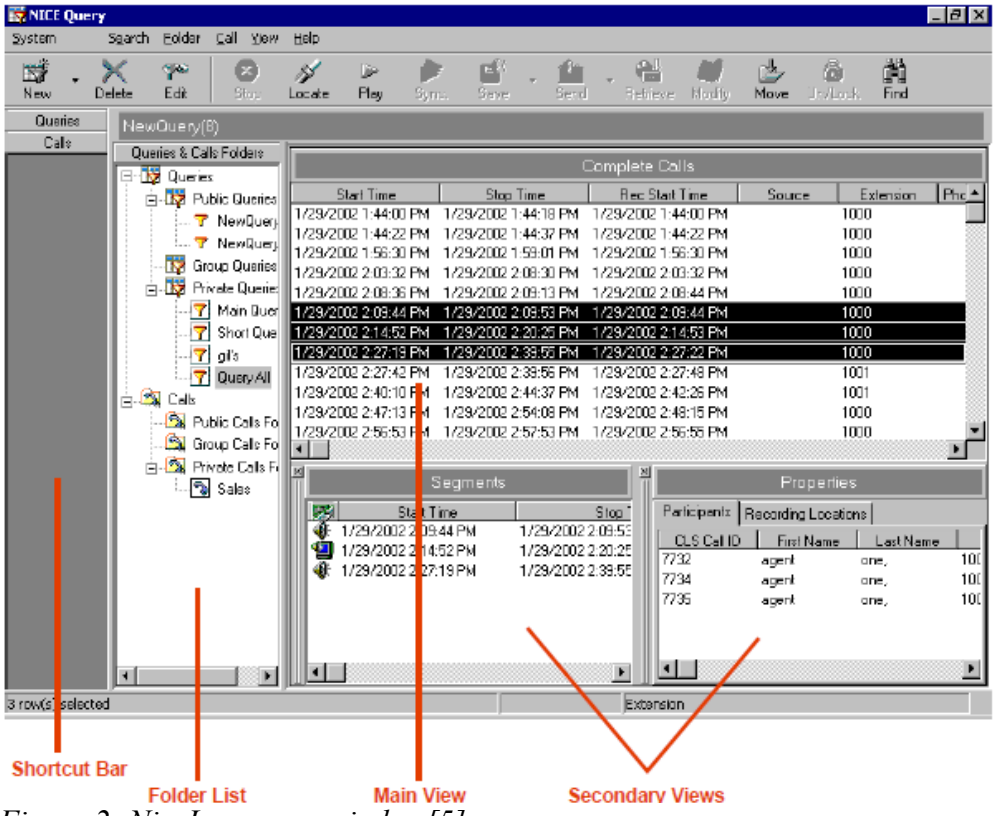


Figure 2: NiceLog query window[5]

In the above scenario a team leader has selected a folder from the left side folder list. In Sampo Bank the folders usually represent different employees. Then he or she has selected three phone calls he or she wants to listen to from the main view. Addittional information about the phone calls is given in the secondary views.

In Figure 3 below is a zoomed in picture of Figure 2. A list of complete calls of a certain agent is shown.

Complete Calls

Start Time	Stop Time	Rec Start Time	CLS Call ID	CLS Flags	Rec Output	Compound ID	Call_Type
07/06/00 11:33:28	07/06/00 11:33:42	07/06/00 11:33:29	5504	D	0000/00102	5503	MOCH
07/06/00 11:39:04	07/06/00 11:39:32	07/06/00 11:39:05	5509	D	0000/00212	5508	Talkgroup
07/06/00 11:39:47	07/06/00 11:40:07	07/06/00 11:39:48	5514	D	0000/00212	5513	Talkgroup
07/06/00 11:40:09	07/06/00 11:40:32	07/06/00 11:40:10	5517	D	0000/00212	5516	Talkgroup
07/06/00 11:41:05	07/06/00 11:43:34	07/06/00 11:41:06	5521	D	0000/00200	5520	Talkgroup
07/06/00 11:41:26	07/06/00 11:41:56	07/06/00 11:41:27	5524	D	0000/00201	5523	Talkgroup
07/06/00 11:42:28	07/06/00 11:43:25	07/06/00 11:42:29	5532	D	0000/00201	5531	Talkgroup
07/06/00 12:18:20	07/06/00 12:18:51	07/06/00 12:18:22	5543	D	0000/00101	5542	Private
07/06/00 12:23:03	07/06/00 12:23:13	07/06/00 12:23:05	5547	D	0000/00101	5546	Private
07/06/00 12:23:15	07/06/00 12:23:25	07/06/00 12:23:17	5550	D	0000/00100	5549	Private
07/06/00 12:23:27	07/06/00 12:23:38	07/06/00 12:23:30	5553	D	0000/00101	5552	Private
07/06/00 12:23:40	07/06/00 12:23:50	07/06/00 12:23:42	5556	D	0000/00101	5555	Private
07/06/00 12:25:38	07/06/00 12:25:55	07/06/00 12:25:40	5559	D	0000/00111	5558	Private
07/06/00 12:26:53	07/06/00 12:27:03	07/06/00 12:26:55	5563	D	0000/00111	5562	Private
07/06/00 12:29:06	07/06/00 12:29:10	07/06/00 12:29:08	5566	D	0000/00101	5565	Private
07/06/00 12:29:12	07/06/00 12:29:25	07/06/00 12:29:14	5569	D	0000/00101	5568	Private
07/06/00 12:31:06	07/06/00 12:31:24	07/06/00 12:31:07	5572	D	0000/00101	5571	Private
07/06/00 12:31:26	07/06/00 12:31:58	07/06/00 12:31:27	5577	D	0000/00101	5576	Private
07/06/00 12:31:53	07/06/00 12:32:17	07/06/00 12:32:01	5581	D	0000/00110	5580	Private

Figure 3: A list of calls stored in NiceLog [5]

From the list of complete calls as shown in Figure 3 a team leader can select the phone calls he or she wants to listen to. Vital information to aid the selection is given in the list such as time and duration of the call.

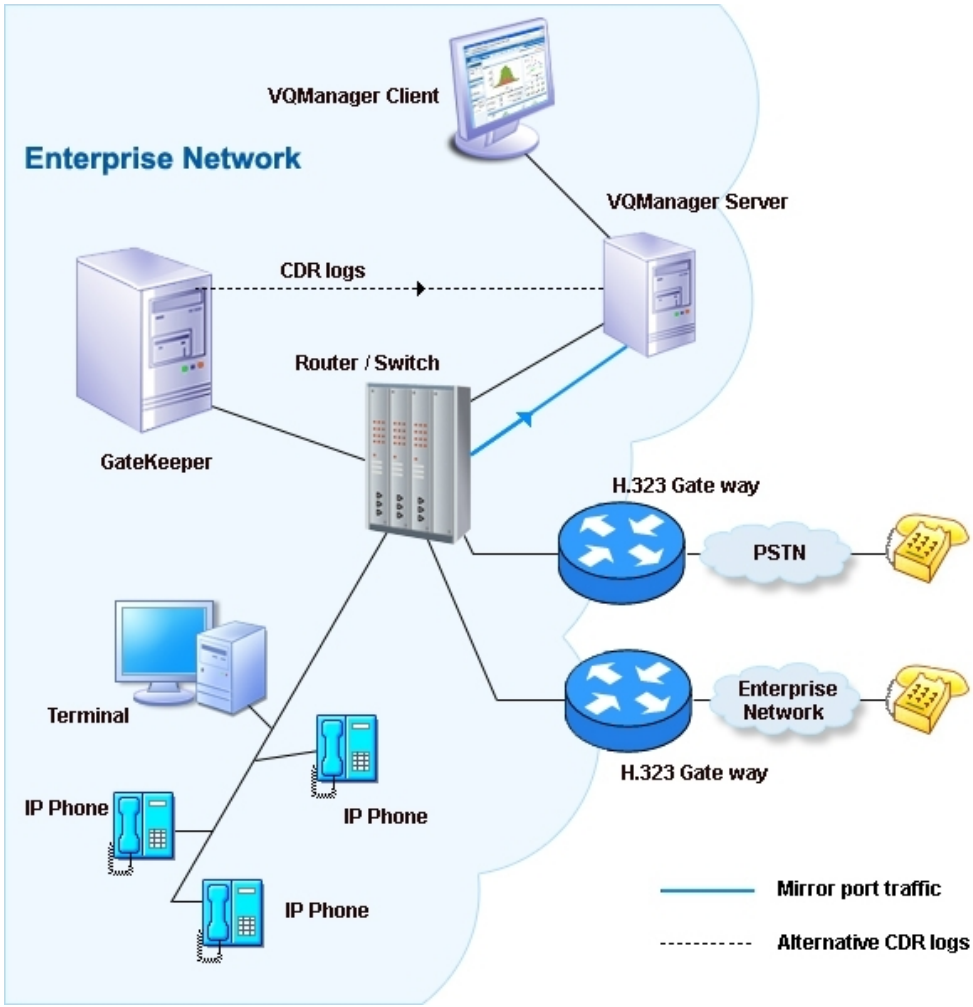
2.3 Technical Information about Phone Network

In Sampo Bank the telephone system is based on MPLS and VoIP technologies. The phones themselves are manufactured by Nortel. When a customer calls the number of customer support (0200 2580) he or she is first at a phone central. This is where NICElog is physically situated. Then with the selections the customer makes the call is routed to the correct destination. This is where the MPLS is used for efficient handling of data. When the call is answered, VoIP is used.

2.3.1 Voice over Internet Protocol

The telephone system used in the contact center of Sampo bank is built using VoIP technology. VoIP is an abbreviation of the words Voice over Internet Protocol. It is a protocol optimized for the transmission of voice through the Internet and the system carries telephone signals as compressed digital audio, encapsulated in a data-packet stream over an IP-network. [7]

In Figure 4 below the architecture of VoIp is explained. VoIP is a technology that allows a standard phone network to be integrated in to an IP -network and vice versa.



Picture 4: Typical VoIP architecture[6]

In Figure 4 the two yellow phones represent customers calling to Sampo Bank. The data sent by these phones is transformed into IP-based data by the H.323 gateways and from there on the router sends the data to the employees answering the calls represented in the figure by the IP phones. "*The steps involved in originating a VoIP telephone call are signaling and media channel setup, digitization of the analog voice signal, encoding, packetization, and transmission as IP packets over a packet-switched network*" [7]

Voice over IP has been implemented in various ways using both propietary and open protocols and standards. [7] Several different protocols are used with the consept of VoIP. These protocols can be divived into two sections; Signaling and Media. In the following the most important protocols of VoIP are introduced.

H.323 - This is a "protocol suite" which includes many different protocols into one big unit. It holds for example Call transfer, diversion, hold, waiting protocols, security and authentication and IP-based faxing to name a few. [8]

IMS – IP Multimedia Subsystem is an architectural framework for delivering IP multimedia services. Its original formulation (3GPP R5) represented an approach to delivering "Internet services" over GPRS. [7]

MGCP - Media Gateway Control Protocol

SIP - Session initiation Protocol. SIP is a textual client-server base protocol and provides the necessary protocol mechanisms so that the end user systems and proxy servers can provice different services.

RTP - The Real-Time Transport Protocol provides end-to-end network transport functions suitable for applications transmitting real-time data. [8]

Using and applying these protocols onto the network is how VoIP is set up and used. VoIP technology can provide bandwith and cost efficiency and this is why it is used in Sampo Bank.

2.3.2 Multiprotocol Label Switching

MPLS is an abbreviation for the words Multiprotocol Label Switching. Its techniques are applicable to any network layer protocol. PLS is considered to lie between OSI layers two and three. "It was designed to provide a unified data-carrying ervice for both circuit-based clients and packet switching clients. [9] In Sampo Bank, MPLS is used to efficiently carry IP packets.

The basic function of MPLS is to give each packet a prefixed MPLS header, containing one or two labels, called stacks.

Each stack contains four fields:

- A 20-bit label value

- a 3-bit field for QoS

- a 1-bit bottom of stack flag (This marks the last label of the stack)

- an 8-bit Time To Live-field

Instead of using a Routing Table, used in standard IP-traffic, these MPLS-labeled packets are switched after a Label Lookup or Switch. Label Lookup and Switching can be done entirely within the switched fabric. The idea behind this that it doesn't use the CPU of each computer. [9]

2.3.3 The Basic Function of Multiprotocol Label Switching

To give better view and understanding of MPLS and its architecture Figure 5 is placed below to illustrate this.

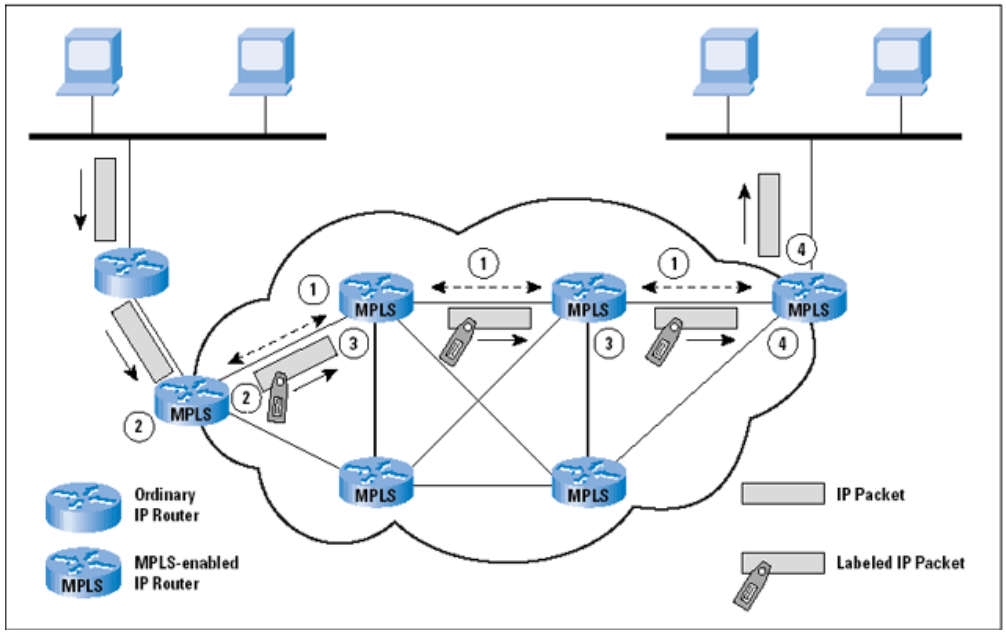


Figure 5: Typical MPLS architecture[10]

In Figure 5 the computers in the upper left side of the picture send out IP-packets. These packets are then sent to the MPLS-network which is represented by the cloudlike area. In this area the IP-packets are given labels and then routed onward by the MPLS-enabled IP routers. The computers in the upper right region receive normal IP-packets again.

A MPLS network which consists of routers which perform rounting only using the label and the entry and exit points of the network. These routers are called Label Switch Routers (LSR) and the entry and exit points are called Label Edge Routers (LER) When a packet arrives into the MPLS network a label is given. Labels are given according to a Label Distribution Protocol. Also a Forwarding Equivalence Class (FEC) is determined at the time of entry. FEC deteremine the priority of the data-packet.

When moving in the MPLS nerwork the packet is distributed solely using these given labels. The data contents of the packet are not examined anytime when moving in the MPLS network. When a packet arrives to a router the topmost label is examined and based on its content swap, push or pop operation can be performed on the label stack.

- In a swap operation the label is swapped with a new label, and the packet is forwarded along the path associated with the new label

- In a push operation a new label is pushed on top of the existing label, effectively encapsulating the packet in another layer of MPLS.

- In a pop operation the label is removed from the packet, which may reveal an inner label below. This process is called decapsulation.

If the popped label was the last on the label stack, the packet leaves the MPLS tunnel.

When a packet leaves the MPLS network the label is taken out in order to ave bandwith. The last router in a MPLS network sends he packet in to a "normal" IP or other network and therefore must have routing information for the packet's payload. This is the only ime when the packet itself is being ex-

amined. Other routers known as the MPLS transit routers have no such requirements. [9]

2.4 LEGAL INFORMATION

In this chapter the procedures of phone call recording and listening are gone through. The informing of the customer and the usage and the indentification information of the recordings are explained. Also the matter of who decides when to use the recorded material and how is it archived and deleted are gone through.

According to the finnish law 37§ concerning companies that provide investment services, the phone calls which include assigments have to be recorded. This law is in effect from the first of November 2007. This law also brings new procedures into action concerning telephones that are not plugged in into the phone call recording system NICElog.

In telephonebanking calls are not taken in any case to telephones in which the recording of the phone call is not possible. In case of a technical failure in the phone call recording system procedures are looked separately and considering the circumstances. Authorisation of these exceptional actions is given by the chief executive of telephone banking or the person in charge of investment operations.The law 37§ also states that phone calls that lead into spoken agreements have to be archived and stored for 10 years.

The following information of a single phone call can be saved into Nicelog:

- Starting and ending time

- The central line information of the operator

- Contents of the conversation

- Type of call

- Name of the employee

- Phone User ID and number of the employee

- Name of the customer

- The phonenumber of the customer, providing it's not secret

- The identification and authentication information

- Customer information (for example selections in the phone menu)

- Other technical information

The recordings and the identification and authentication information in them are used for many different purposes such as:

- Authentification of spoken agreements and other legal matters

- Authentification of a customer service situation

- Ensuring, developing and repoting of customer service

- Ensuring both parties of legal protection and safety

- Avoiding and solving mis-use situations

The list above points out five of the main reasons why the phone calls must be recorded. The new law introduced in 2007 set new standards for phone banking as well and this is why NICElog was installed and put into use in Sampo Bank.

2.4.1 Informing of Recording of Calls

The calls where a customer is identified by using banking ID-numbers are recorded. The database information is also stored. The customer agrees to the terms of electronic services of Sampo Bank when he or she gets his or her eBanking ID number. The customer is informed also that the phone call can and will be recorded with no other announcements. If a customer asks he or she is to be told of the recordings and their usage.

The calls where a customer is not identified by using banking ID-numbers are recorded as well but the database information is stored only for two weeks. After that the phone call cannot be found in Nicelog. If an employee

calls to a customer who is not identified but a spoken agreement is done the conversation and the database information of the call are stored.

2.4.2 Listening of Recorded Phone calls

The information in recorded calls can only be used in the situations explained in Chapter 4. Other situations where a phone call has to be listened can be authorised by a chief executive.

A customer also has rights to listen to the recorded conversations. According to the law of personal information a customer has a right to know what information of him or her has been stored in to the database of the company. But this right is limited only to the recorded calls and the information in them.

In other circumstances recorded calls can be listened by authorized personel such as the security deparment of Sampo bank and the police. Giving up information to outsiders is controlled by a chief executive.

2.4.3 Privacy

"Privacy is the ability of an individual or group to seclude themselves or information about themselves and thereby reveal themselves selectively. [11] Banking information is considered to be a strict secret between the bank as an organisation and the individual. It is easy to understand that if the bank records phone calls and listens to them in "non-legal" or "non-private", such as complaints or reclamations, circumstances, privacy can be easily offended. These types of circumstances can be for example educational.

In phone banking there are two types of situations when contacting the customer; inbound and outbound. when considering privacy there is a significant difference between these two. It is clear that if the bank does not have proof of what has happened, hence a recorded call, the bank is always on the down side in legal raffles. Therefore it is imperative for the bank to record the calls, in both inbound and outbound situations.

2.4.4 Inbound Calls

An inbound call is when the customer contacts the bank. As the customer moves in the phonemenus making selections, the customer is informed that the phone call is being recorded. When a customer contacts the bank the customer makes the decicion first of all to contact and second to give out his or her individual banking information. The customer is at first notified in sampopankki.fi that the call is being recorded and later on in the phone menus the same notification is given out. The notification stands: "For secure bank issue handling, your call is recorded." [12]

2.4.5 Outbound Calls

Outbound calls are trickier when it comes to privacy issues. In this case the bank makes the initiative to approach the customer. It is unclear if the representative of the bank always makes it clear that the phone call is being recorded. When the bank approaches the customer and "digs out" personal banking information it is easier to consider that when the bank later on listens to the calls they are invading the privacy of the customer. It has to be made clear here that when the bank listens to the calls it's stricktly bussiness. All of the employees in the bank have signed a paper (the law of banking secrecy) saying that it is illegal for them to discuss about customers' banking information in any other circumstances than work related.

The bank also has rights. They have a right to be good at customer service, therefore they need to record the calls and listen to them. It is also obvious that issues can rise up when calling to the customer as well as when the customer calls to the bank. That is another reason for recording the calls. [12]

For more information about privacy and security issues from the clients perspective, see the interview with Reijo Aarnio.

3 MATERIALS AND METHODS

The main focus of the study are the actual user experiences of NICElog. In order to get these experiences Juha Ulpovaara the director of the study at Sampo Bank proposed that the team leaders who use the program in their daily work would be interviewed. He also proposed that to get a broader view from the company's perspective the director of the contact center of Sampo Bank Asko Mikkonen could also be interviewed. When making the Asko Mikkonen interview he proposed that in order to get an educated and experienced view from the customers' perspective the data protection ombudsman of Finland, Reijo Aarnio, could be interviewed.

3.1 Interviews

The interviewes were carried out to get actual user experiences of the program. First off the people who are the main user group, the team executives in the contact center, were interviewed. First off e-mail requests for interviews were sent on numerous occasions and five team leaders responded and were interviewed. With the e-mail request was also an e-mail questionnaire which had the same questions as the normal interview.These five people were: Anniina Varonen, Maria Kankaanpää, Patrick Seiferling, Tanja Soinela and Tommi Lamppu. Out of these five respondents Tommi Lamppu was the only one who answered by e-mail. While interviewing their answers were quickly written down and after the interview all the aswers were written out. These interviews can be found in Appendix 1. The questionnaire was compiled with Juha Ulpovaara and these are the questions that were asked of them:

- How did you get the program on your computer and how long did it take?
- Were there any problems with user-ID’s?
- Do you know how to use the program, make queries and such?
- What do you use NICElog for?
- Have you encountered any problems when using NICElog?

- What is your general image of NICElog?

- Requests and wishes concerning NICELog

After these the next interviews were carried out higher in the chain of executives. The chief executive of the contact center, Asko Mikkonen, was interviewed and with help from Juha Ulpovaara the questionnaire was compiled and questions were:

- What are the requirements set for NICElog by the company

- The numbers related to NICElog (percentage of lost calls and such)

- The problems with dysfunctional user-ID's.

- General image of NICElog

- Future plans

Next up was a professional view from outside the company from the perspective of the customer. The Data Protection Ombudsman of Finland, Reijo Aarnio, was interviewed. This interview was first proposed by Asko Mikkonen during the making of his interview. The reason was to get an educated and experienced view from the customers' perspective. The questionnaire was compiled with Asko Mikkonen and Juha Ulpovaara and the following were asked of him:

– Please tell freely about your opinions on recording calls

– What are your opinions on the educational use of the recorded calls?

– Another question is outbound calling. Tell me your opinions in this

– The last problem will be the case of lost recordings. What do you think of this?

All but one of these interviews were done face to face. The one team leader who chose to anwer by e-mail was Tommi Lamppu. The interviews were originally Juha Ulpovaara's idea and with his help the questions compiled. After

that all the team leaders were contacted and as mentioned earlier five of them responded. To broaden the perspective Asko Mikkonen and later on by his suggestion Reijo Aarnio were interviewed and the questions were com piled with Juha Ulpovaara and Asko Mikkonen.

4 RESULTS AND ANALYSIS

In this chapter all of the interviews are gone through. The people who were interviewed were the five team leaders whose experiences were charted out with the questionnarre compiled with the director of the study at Sampo Bank Juha Ulpovaara. Also the director of the contact center of Sampo Bank Asko Mikkonen an the Data Protection Ombudsman of Finland Reijo Aarnio were interviewed and the results of those are prented in this chapter as well.

Anniina Varonen

Anniina Varonen is a team leader at Sampo Bank and she was interviewed face to face.

When she started working at her curren workplace the program was already installed on her computer. When asked about any problems with user-ids she mentioned that she had had major trouble with them. When making the interview her user-ids were no functional at all and she had to rely on the tech-support team to listen to calls. She also mentioned that she did not have too much spare time and found the user-id problem to be very inconvinient and kept her from using the program.

She mentioned that NICElog was familiar to her from a former job. When asked about what does she use NICElog for she answered that she would like to use the program to increase the customer service skills of her team, but unfortunately she had not had the time to do that. She also mentioned that the problems with her user-ids hinders this.

Next she was asked about any problems using NICElog. She replied that the user-id problem had been a major one and also she mentioned that she had heard that almost all other team leaders have had trouble with this. She reported that using the tech-support's ids is a bit of a mess when everybody has their own files in the tech-support folder. Other than that she mentioned no big troubles, no phone calls dissappearing or such, with the program and found it to be a functional one.

She said that her general image of NICElog is pretty good, furthermore she mentioned that she wished she had more time and workind ids to be able to educate her team members more efficiently.

Patrick Seiferling

Patrick Seiferling is a team leader at Sampo Bank and he was interviewed face to face.

To get the program on his computer Patrick Seiferling had made an e-order to Denmark. The installation did not take very long, only one day or so. He also mentioned that he had wanted NICElog to be installed on to a computer in a listening room and that turned out to be troublesome. He reported that he had had to ask for the installation a couple of times and eventually it took about a month for it to be up and running. When asked about any problems with user ids he reported that he had not had any trouble with them at all.

The version of NICElog that was used when making the intervew was instantly familiar to Patrick Seiferling because he had used older versions of th program before. He reported that as he works with outbound calls and therefore he does not have to work with customer reclamations. He said that he mainly uses it to increase the customer service skills of his team members. He said that he listens to phone calls with the team members and tries to find positive and negative things in the conversations and give feedback.

When asked about any problems he might have encountered when using NICElog he said that he finds the system to be quite functional and had not

had much trouble excluding those installation problems mentioned earlier. One issue he reported though was when he tries to save the conversation on to a workstation's harddrive the program loads it up to 90% and then freezes.

The general image of NICElog he had was that it was an easy program to use and a functional tool to invcrease the skills of his team.

Maria Kankaanpää

Maria Kankaanpää is a team leader at Sampo Bank and she was interviewed face to face

She reported that the program was installed on to her computer by the tech-support team and it took about two days time after the order was placed.

When asked about problems with user ids she mentioned that at first she had not had listening rights so she had to put an e-order to Denmark so that they could update her account.

At the time of the interview it was still a bit unclear to Maria Kankaanpää what phone calls does she have rights to listen and what not from a legal point of view. Also as the interview was being made it was found out that all phone calls were not being recorded correctyl and that the program was missing from her computer.

She mentioned that she had had the tech-support team show her how to use the program and also given her written instructions so using the program was easy for her at the time of the interview. She reported that she only uses the program in case of customer reclamations as she had not had the time to use it for other purposes for example educational ones although she would had liked to.

When asked about any problems she had faced when using NICElog she first off responded that there had been situations where a phone call has not

been found and in a couple of them the key phone call was missing. She said that in these kinds of situations the customer has contacted and the problem tried to be solved in some other fashion. She also mentioned that there had been a few situations where the phone call was found but for some reason it could not be listened to. She reported that this happens about 10-15% of the time but had yet to cause trouble with customers. The sound quality of the calls was not a big problem in her opinion either.

Her general image of NICElog was that is quite easy and simple to use. The program dissappearing from her computer obviously was a bigger problem and also she mentioned that the rate of lost calls should be minimized.

Tanja Soinela

Tanja Soinela is a team leader at Sampo Bank and she was interviewed face to face.

She got the program on her computer by making an e-order to Denmark and it took approximately one day for the program to be up and running on her computer. She said that at first she did not have functioning user ids as she could not make queries and was forced to use the help of the tech-support team to find the calls but at the time of the interview the user id was working well.

She reported that she knew NICElog quite well but she also mentioned that she does not use it that much. She had gotten help and guidance which she said made it easier for her to learn how to use the program.

When asked about what she uses NICElog for she replied that she works with inbound calls so in case of customer reclamation she listens to calls and tries to solve the issue furthermore she uses the program to improve the selling and customer service skills of her team as well.

She reported that she had not had any trouble with the program excluding those user ids mentioned earlier but she also said that she does not use the program that much. All the calls she had needed to find had been found and all reclamation issues had been solved with no trouble at all.

When asked about her general image of NICElog she replied that the program is quite easy to use but she had had some language skill trouble as the program is in english. She also mentioned that making basic queries should be faster and require less clicking.

Tommi Lamppu

Tommi Lamppu is a team leader at Sampo Bank and he answered a questionnarre sent by e-mail.

To get the program on his computer he had contacted the tech-support team who had instructed him to get in touch with a specific person in Denmark or to make and e-order. He had contacted the person but after about two weeks of contacting him they had yet to install the software so he had made an e-order which took about another two weeks for the program to be up and running.

When asked about any problems with user ids he replied that he had had trouble with NICElog on every step of the way. Up to th time of the intervie He still did not have a functioning NICElog account so he had had to use another person's user id. He wrote that he can login with his own user id but all He can find is his own phone call conversations. He also mentioned that in his work he should be able to listen to the conversations of his team members, but it had been impossible to do with his own user id.

He wrote that he had never looked at any written instructions on how to use the program and he also mentioned that he had had an experienced user show him how to use the program.

Yes. I've never looked at any written instructions. I had an experienced user show me how to use the program. When asked about what he uses NICElog for he replied that he uses it for educational purposes mainly.

He wrote that he had had tons of problems but there had been no cases in which he had not been able to find a specific phone call. He mentioned that he listens to the phone calls he can find in the database and uses those. He also mentioned that he could sometimes tell that there had been a phone call missing but he underlined that it is not important in his work. His general image of NICElog is that it is a very useful program if it would work properly.

Asko Mikkonen

Asko Mikkonen is the Director of Sampo Bank's Contact Center. He was interviewed face to face.

Asko Mikkonen said first of that Sampo Bank has used Nicelog since 1995 but procedures and legal issues were made in 2006. It was Reijo Aarnio who brought up the issue that banks don't really have specific instructions on recording phone calls with customers. According to Asko yhat media stirr motivated us to make rules for using Nicelog. He said that Sampo Bank wanted to be the first bank to have specific guidelines and rules, and that's just what they did. He also mentioned that his issue is yet to be attended at the time of the interview with the introduction of Danske bank but it will be done soon.

Asko Mikkonen said that early on the calls were only recorded for evidence in reclamation cases. In the summer of 2006 Sampo Bank started to record these calls more for educations sake. Also customer service situations were recorded in branches as well in order to be able to increase customer service skills.

Then he added that this is when Reijo Aarnio called the matter in to question. Asko said that the reality is that phone calls have always been recorded in phonebanking. Furthermore he said that this is an easy issue to be popu-

listic about and Sampo Bank had had a bit of a bad stirr in the media as well. He said that this is why we wanted to make the best and most precise rules about this and Sampo Bank were up for the challenge.

When asked about the issue of percentages of lost calls he responed that the main point here is: how serious this actually is? Then he added that to be completely honest it is not going to stop bussiness if the recording system is not working for a while. The propability of something happening is quite small. Furthermoe he mentioned that here are some numbers Sampo Bank is working with. If the percentage of calls found drops below 80%, it is serious and actions needs to be taken. If it is in the vicinity of, say, 95% it proposes little trouble. some small actions could be done. The goal is 99%. But these numbers are not so critical.

To the question of user id problems he said that he had not heard much about those. He said that he believes it has something to do with the migration with Danske Bank and that he trusts the case is resolved at some point.

His general image of NICElog is that it is a well known and highly appreciated brand. He said that he had heard that Danske Bank had troubles with the program but during the migration negotiations Sampo Bank insisted that NICElog is the program used for the recordings. He also added that usually there is a external service team that takes care of the problems Sampo Bank faces, but we have not had to have that. Sampo Bank has had very little trouble and with the help of Martti Takkula of Scando OY we've been able to take care of the trouble ourselves.

When asked about future plans he responded that maybe Sampo Bank will introduce the recording of customer service situation in branches again. But other than that he said that he does no see why Sampo Bank should expand the usage of NICElog. Contact Center is working well in hisopinion, so no need to take any measures there.

Reijo Aarnio

Reijo Aarnio is the Data Protection Ombudsman of Finland and he was interviewed face to face.

At first Reijo Aarnio was asked to talk freely about recording of phone calls in businesses. He replied that the main issue always is the identification of the customer. He said that in his opinion we still do not have the technical capabilities to identify the customer well enough in for example phone banking for the identification to be legally adequate. The laws that matter here are the law of personal information and furthermore the law of confidentiality in electronic services.

He said that he first question is: "is it alright to record phone calls?" the laws in this case have been constructed on the criminal laws of phone call interception. According to him the basic idea is that if you are talking yourself it is alright to record the phone call. It is also considered ok for companies to record phone calls which include a bussiness action.

Then he added: ”I'll give you a problematic scenario to deal with next. It's called the asymmetry of knowledge.” It means that a customer is involved in a conversation with a company. The company does not inform the customer that the conversation is being recorded. A problem arises next and the customer is on thin ice because he or she does not know that the conversation was recorded and therefore does not have any proof of what has happened. The company is always going to use the recordings in their favor.

What are your opinions on the educational use of the recorded calls?

When asked about his opinions on the educational use of the recorded calls he replied that if the customer is not identified it is OK to listen to the calls in any purpose because then we are not dealing with personal information. If however the customer is identified only the people who are directly involved

in the case are allowed to use the recording in educational as well as in any purposes. He added that first of all if an outsider in the matter listens to the call it breaks the law of banking secrecy. The handling of data which breaks any law is of course wrong.

He continued that in a case of a customer complaining the customer is propably going to contact the team leader instead of the team member the customer was first talking to. So if the executive has the means to get that information anyhow, without a complaint or anything, it's ok for the executive to listen to the records. But if the executive listens to the calls for fun it's not ok. Then he mentioned that if the purpose of the listening to the recorded conversation is directed at the team member, not the customer, it's ok. In Finland we have a law of legal protection of personel to protect the rights of employees as well.

Another question is outbound calling. Tell me your opinions in this.

The next question asked handled outbound calling. Reijo Aarnio's opinion of this was that outbound activity can be based on many different purposes. If the call includes a bussiness action it is justifiable to record the call. But in a case of for example marketing, especially when dealing with people who are not customers, there is absolutely no reason for the bank to record the call in Reijo's opinion. Then he continued that if the call was recorded it should be deleted instantly. Then he proposed a dilemma: What if in the conversation a bussiness action did not happen but a customer believes it did?

Then he mentioned that the problem with outbound activity is also that the bank makes the initial and asks the customer to give out personal information. Then, he said, we are dealing with customer consent. There is a law about this too and it states that the customer has to be informed beforehand that personal information will be dealt with in this conversation. The customer also has the right to deny and change opinion.

The last problem will be the case of lost recordings. What do you think of this?

The next question asked was the case of lost recordings. To this he replied that the initial state is that every single call has to be found, if not we could end up with a sentence. He continued that there are a few cases where it is ok that the recording is lost. For example if a persons life could be endangered with the recording. But a technical problem is not nor ever going to be a justifiable reason for the recording to be lost according to him. He continued that if a customer finds him or herself in a situation where a call is lost the customer has the obligation to rise up a legal raffle and we have pretty strong arguments in these cases.

5 DISCUSSION AND CONCLUSIONS

In this chapter all the interviews of the team leaders; Anniina Varonen, Maria Kankaanpää, Tanja Soinela, Tommi Lamppu and Patrick Seiferling, are drawn together to make a conclusion about NICElog. The conclusion will be gone through question by question with all of the answers of the above team leaders taken into account.

E-order was the most popular way of installation. In three out of five cases this method of installation was used. One time the tech-support team in stalled the software and once the program was already installed.

In most of the cases the installation time was reasonable; 1-2 days. In a couple of cases after the initial order was made it took approximately a month for the program to be installed and functional.

User-IDs turned out to be a major problem for most. Only one team leader reported no problems with user-IDs. Two team leades cannot use the sys tem properly using their own user-IDs. Two other ones also had trouble but now have a fully working account.

All the team leaders reported that they can use the program well. If they had trouble using the software they all received useful help easily and effort lessly. Only one team leader needed further advice concerning legal issues of using NICElog.

All the team leaders either use or want to use NICElog for its educational purposes. Only reason given for not doing this was lack of time. If a team leader was involved with outbound calling educational use of NICElog was its only purpose. If a team leader was involved with inbound calls customer reclamations were also a valid reason to listen to phone calls.

This question was related to problems with missing phone calls, quality is sues, and other problems not related to user-ID problems. Three out of five team leaders reported missing phone calls. But in only one of these cases there had been consequences with customer reclamations as a result. There were no reports of quality related problems. One team leader reported that there was an issue with being able to listen to calls and another report of problems with saving particular conversations to a separate hard drive. False names in the database was not reported to be a problem. One instance of the program completely disappearing from the computer was also reported.

Disregarding all the user-ID problems and lost calls, the general image of NICElog is good. All team leaders find it useful and wish they had more time to use it in their work. Considering all the trouble the team leaders have experienced NICElog is not nearly as functional as it should be. User-IDs are a major concern and there seems to be problems here and there.

One team leader requested that the user interface should be easier and faster to use. Other than that no requests or wishes were made.

It has to be kept in mind that only five of over ten team leaders of Sampo Bank answered the questions. However their responses can be taken to represent a good view of how NICElog is meeting its demands. As these team leaders all worked with different kind of customers and inbound and outbound calls their views give a good overall image.

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