

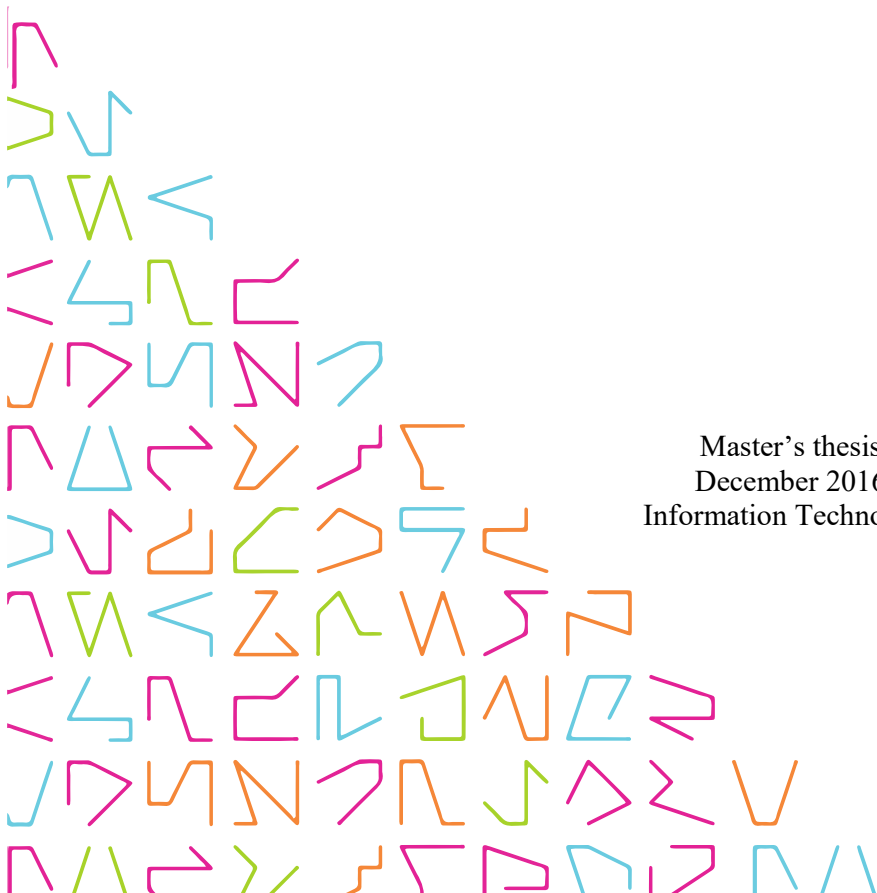


TAMPEREEN
AMMATTIKORKEAKOULU

THE DESIGN, IMPLEMENTATION AND DEPLOYMENT OF MODERN SALES MANAGEMENT APPLICATION

Tuomas Härkönen

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ABSTRACT

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Application

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This Master of Engineering thesis was made for collaboration project of Nordic Industries Development Oy and Ixonos Oyj. The aim of the project is to develop a modern sales management software.

At first, the companies responsible of design and production of the software are introduced and there is also some background about the reasons and experiences which gave the initial idea for the solution.

The theory part consists the design basis of the product, the technical requirements and the technologies chosen based on the requirements.

The research part of this work was to plan the further development of the product by evaluating the latest and upcoming technologies that could be implemented to the software in the future to make it even more usable and efficient. There was also evaluation of current challenges in market entry concerning the developed application to create better understanding where the it should be positioned in companies' sales software infrastructure.

Keywords: sales management, sales IT

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TERMINOLOGY

<i>API</i>	Application Programming Interface
<i>CRM</i>	Customer Relationship Management
<i>Market Insight</i>	Understanding of sales potential and possibilities in certain market
<i>MVC</i>	Model-view-controller
<i>Native App</i>	Application designed for specific mobile phones
<i>POC</i>	Proof of Concept
<i>SaaS</i>	Software as a Service
<i>salesforce.com</i>	World's leading cloud based CRM system
<i>Sales Lead</i>	Entity, which has indicated interest to buy some product
<i>Sales Prospect</i>	Entity, which can be potential buyer of some product
<i>UCD</i>	User-Centered Design
<i>UI</i>	User Interface
<i>UX</i>	User Experience

1 INTRODUCTION

1.1 Company Introductions

Nordic Industries Development Oy is a consulting company specializing on development of sales channels, market openings and enhancement of the efficiency of existing sales channels. It has focused especially on export markets and has executed assignments for Finnish industrial companies on all continents, except Africa and Australia. The company has performed some sales development assignments in domestic markets as well.

The main services of Nordic Industries Development consists the identification of correct sales channel (direct sales, distribution network or some else) in selected target market and analyzation the performance of existing sales channel. The company has been operating from the year 1994.

Ixonos Oyj is Finnish IT-design company which concentrates on digital services, customer experience and providing new business models for it's clients. The company's services also include service design, usability testing, technology consulting and production of digital solutions. Ixonos Oyj has also cloud service called Ixonos Cloud.

Ixonos was established 1994 and listed on stock from year 1999 on. Before year 2007 the company was called Tieto-X Oyj. The customer base of the company consists international brands and companies who seek competition advantage and growth of market shares from digital design. The customers of Ixonos include Samsung, Hewlett Packard, Supercell, Rovio, Viking Line, Discovery, Microsoft, National Geographic and Suunto.

1.2 The History Behind the Developed Application

Nordic Industries Development Oy has made observation during the executed sales channel development assignments throughout the years, that often after the assignment customer company or partner of customer in the target market is incapable of continuing the development of sales from where the assignment has left. This reduces the value of the whole assignment, because the established results and opportunities were left unexploited.

Also from several interviews made by Nordic Industries Development Oy came out the problem of mother company not being able to monitor the distant sales operatives, their efforts and how they have approached the potential customers. The problem is usually related to partners and distributors in remote markets but also the lack of transparency is acknowledged as a problem even if the sales personnel is at company's own service.

The idea of modern sales management and reporting application arose as there was no satisfactory solutions on the markets. The closest are the CRM systems (customer relationship management) but the sales activity reporting is not easily established with them. Also the analyzation of sales insight (the information sales personnel has been able to gather from potential customers and markets) can't be made efficiently and easily in CRM. Traditionally the CRM is used to maintain customer records and the sales results but not so much the sales insight. In addition it doesn't tell anything how the sales people has been selling the products or services.

Also one problem acknowledged by many organizations is, that when sales person leaves the company, many times no concrete information about the sales situations towards those prospects that were handled by that particular person, remains in the company.

The experiences and observations led to development of own product. The core idea was to create an application which can be used following the sales situations and reporting them in real time as easy as possible and where you can make some analysis about those situations also easily and quickly. The core value becomes from these features as it makes possible to focus the time and effort usage to the right targets and also gives possibility to develop products to the right direction according to market demand.

The author of this thesis has taken part to the design and development of the product from the beginning as employeyy of Nordic Industries Development Oy. The inspiration to the product was gotten from the author's interactive map build in the form of website. It was an experimental project to provide market research in digital form. This gave an idea to extend around the map different functionality and it was clear from very early on that the map would be the core component of the product. It makes possible to get sales targets seen in their real locations with the help of geographical information.

The autho'rs role in the project has included the technical expert role first at the buyer's side but later on has widened to include also project manager duties in close relationship with the coding team of Ixonos.

2 IMPLEMENTATION

2.1 Preliminary Requirements of the Developed Application

The author of this thesis has taken part to the design and development of the product from the beginning. The inspiration to the product was gotten from the author's interactive map build in the form of website. It was an experimental project to provide market research in digital form. This gave an idea to extend around the map different functionality and it was clear from very early on that the map would be the core component of the product. It makes possible to get sales targets seen in their real locations with the help of geographical information.

The map as a core element of the user interface has been thought to be effective way to reach one the key requirements of the product – fast and visually perceivable summary of the situation. As other key requirements were seen easiness of use, great usability, fast response and simplicity. The easiness of use and functionality without complicated steps is being highlighted especially in sales reporting functionality. It will provide the data to the system that can be then analyzed.

2.2 The Approach and the Most Suitable Techniques to Support It

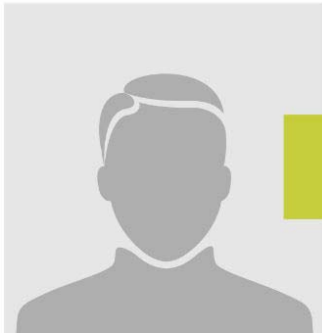
Because the success of the product was determined to depend much on usability and character of the users, the user-centered design (UCD) was chosen.

The foundation for the UCD method is the frequent and iterative participation of the user throughout a design project. Generally speaking, projects which operate on the basis of this approach are divided into three phases: an analysis and design phase, a development phase and a validation and evaluation phase. An ergonomist, who is a specialist in UCD, usually makes a contribution at the earliest design stage, and is also involved in the final phase by way of user testing, but has little input during the intervening development period. However, the design phase, which is sometimes rather short, does not always allow for the involvement of realworld users. Furthermore, because the evaluati-

on phase occurs only after the development has already taken place, the possibilities for modifications to be made are limited, for reasons of time and financial costs.

(Deuff & Cosquer, 2013, 5)

The design started by profiling the user characters and the outcomes they would need to accomplish in the system. The sales operatives were profiled in general to be very busy, not experts in IT-systems and not willing to spend much time accomplishing things by using them.



Pentti
Sales Manager

“I want to track my sales team real time, and assign new tasks with related attributes and material easily.”

Pentti is in charge of operational planning of sales activities, he needs to turn Jorma's vision into actionables, i.e. concrete sales activities for targeted customers. Pentti also wants to track the sales personnels performance efficiently. If something is not working, Pentti wants to know the facts behind the problems.

GOALS

1. Allocate sales tasks to sales personnel.
2. Define what are the questions sales personnel need to ask from the customer
 - Ensure that sales personnel extract all relevant information from customers
 - Enable tracking of sales data real time
3. See the status of sales activities
 - See same high-level status reports as Jorma, globally or possibly for own region (based on authorization)
 - See status of individual sales persons
4. Create reports easily from sales data
 - Export reports on selected data to enable printing in paper format
5. Ensure accuracy of the sales data
 - To be able to edit any sales related data (change log captured).

CURRENT PAIN POINTS

Assigning sales tasks with clear instructions and all related material to each sales guy is a lot of work.

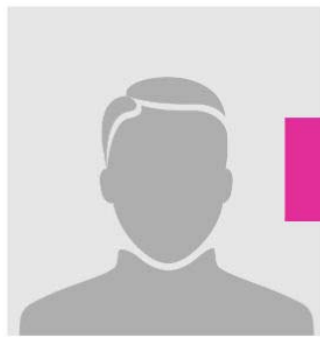
Tracking sales performance and real time status requires extensive amount of communication through phone and email.

Not being able to find out the facts and reasons behind the numbers.

DEVICES

Similar to Jorma's use of devices.

PICTURE 1, The profiled character of Sales Manager in specification document



Faisal

Sales person

“I want to have an easy way to plan my customer visits. Using less time reporting visits means I can spend more time meetins customers.”

Bahir is the sales person who visits the customers based on the assignments set by Pentti. Planning and visiting customers in efficient way is very important for Bahir. Typically there is no time to plan each customer visit separately, therefore all customer related data needs to be available easily when needed.

GOALS

1. Plan own sales activities to effectively meet customers as planned by sales manager.
 - See own sales tasks (on map)
 - Plan customer visits (calendar)
 - Download brochures and other material to enable offline use.
2. Close the deals.
 - Have the needed details about customer and products in order to close the deal.
3. Collect customer data to report sales activities without typing extensive reports
 - Collect customer data with questions & attributes defined by the sales manager
5. Ensure accuracy of the sales data
 - Add new contacts
 - Add new potential customers
 - Mark obsolete customers, so that sales manager can remove nonexistent customers from the system.

CURRENT PAIN POINTS

Planning customer visits is a lot of work. Pentti assigns places to visit in meetings or via email, and Bahir needs to collect related material from internal tools.

Reporting is manual work, all visits and related data has to be collected manually.

DEVICES

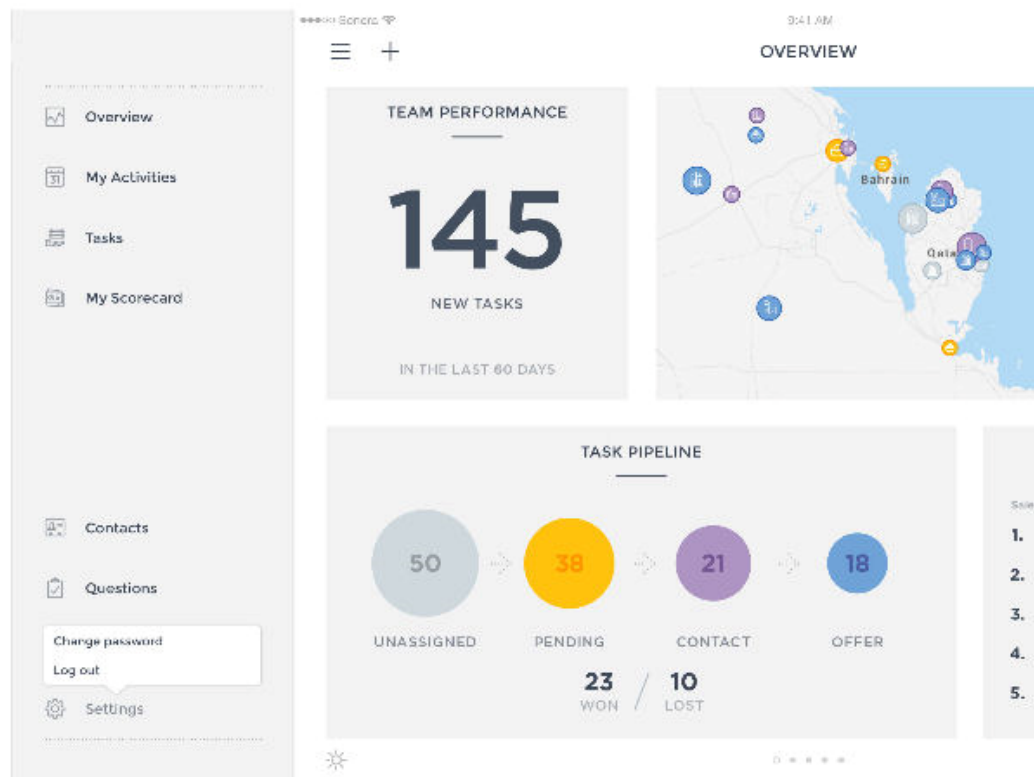
Bahir is a heavy user of mobile phone, calling and confirming things with customers day in, day out. Mobility and traveling light is a key for Bahir, so he would prefer not use laptop in daily activities, if possible.

PICTURE 2, The profiled character of Sales Person in specification document

The product was decided to be developed first browser-based as it would work then already in several type of devices and as the map as the core of the user interface would create challenges on the small screen of phone. Because of this the first platforms that the product can be used with were selected to be desktops, laptops and tablets.

2.3 Development in Collaboration with Ixonos Oyj

From the gathered background information and from the core idea that the map would be the center of user interface, the UX team of Ixonos produced wireframes which contained all the views the to-be-built product would consist with the ideas of their functionalities.



PICTURE 3, The sketch of overview view from the wireframe document

When the graphical design was ready, the implementation of functionality began gradually using the Scrum & Sprint technique to create a proof of concept (POC) and to validate the functionality.

For a number of years, agile methods (in particular the Scrum method) have become widely used by development teams. These are models which involve iterative and incremental development, intended to respond as faithfully as possible to the needs expressed by the project commissioners, offering a high degree of reactivity to their demands. These approaches facilitate rapidity in the development of a service, and flexibility to apply adaptations which appear necessary to this product during the development phase. Nevertheless, the end-user is not formally involved in the pursuance of these methods, meaning it is of limited use from the point of view of UCD.

(Deuff & Cosquer, 2013, 6)

After the POC was ready and because of the change of project manager in Ixonos' side, the author of this thesis moved inside Ixonos office to take more role in technical project management as well and this highlights the customer-centered approach of the pro-

ject as the customer has been working inside the producer's facilities to be able to direct the project in agile fashion. With this working method the version 1.0 was established.

2.4 The Selected Technologies

The product was produced from the perspective of not being dependent upon the used platform which lead to web based application. It was produced with modern web technologies. The building of Native App was pushed later on as well as the offline capability as it was seen troublesome because of the map component being central part and requiring the online connection.

2.4.1 AngularJS

AngularJS is a relatively new JavaScript MVC framework but it is the real game changer. It has a novel approach to templating and bi-directional data binding which makes the framework very powerful and easy to use. People constantly report a dramatic reduction in the number of lines of code needed in applications using AngularJS as compared to other approaches. (Darwin & Kozlowski, 2013, 1)

According to the web blog by Jeremy Likness, AngularJS among other benefits, handles dependencies, allows developers to express UI declaratively and enables two-directional design-development workflow. (<http://devcenter.wintellect.com/jlikness/10-reasons-web-developers-should-learn-angularjs>)

These were significant benefits in the development of the application, because the usability of UI was the first priority.

2.4.2 MongoDB

MongoDB is one of the leading NoSQL document store databases. It enables organizations to handle and gain meaningful insights from Big Data.

Some leading enterprises and consumer IT companies have leveraged the capabilities of MongoDB in their products and solutions. The MongoDB 3.0 release introduced a pluggable storage engine and the Ops Manager, which has extended the set of applications that are best suited for MongoDB.

MongoDB derives its name from the word “humungous.” Like other NoSQL databases, MongoDB also doesn’t comply with the RDBMS principles. It doesn’t have the concepts of tables, rows, and columns. Also, it doesn’t provide features of ACID compliance, JOINS, foreign keys, etc.

MongoDB stores data as Binary JSON documents (also known as BSON). The documents can have different schemas, which means that the schema can change as the application evolves. MongoDB is built for scalability, performance, and high availability.

The following are the ways in which MongoDB is different from SQL.

- MongoDB uses documents for storing its data, which offer a flexible schema (documents in same collection can have different fields). This enables the users to store nested or multi-value fields such as arrays, hashes, etc. In contrast, RDBMS systems offer a fixed schema where a column’s value should have a similar data type. Also, it’s not possible to store arrays or nested values in a cell.
- MongoDB doesn’t provide support for JOIN operations, like in SQL. However, it enables the user to store all relevant data together in a single document, avoiding at the periphery the usage of JOINS. It has a workaround to overcome this issue. We will be discussing this in more detail in a later chapter.
- MongoDB doesn’t provide support for transactions in the same way as SQL. However, it guarantees atomicity at the document level. Also, it uses an isolation

operator to isolate write operations that affect multiple documents, but it does not provide “all-or-nothing” atomicity for multi-document write operations.

(Edward & Sabharwal, 2015, Chapter 3)

2.4.3 Google Maps JavaScript API and Google Maps Geocoding API

Google Maps JavaScript API is used for visualizing maps. Visualization included embedding completely own outlook to map images as well as creation of suitable styled icons and markers for the product.

Geocoding is the process of converting addresses (like a street address) into geographic coordinates (like latitude and longitude), which you can use to place markers on a map, or position the map.

(<https://developers.google.com/maps/documentation/geocoding/start>)

The Google Maps Geocoding API was used to create functionality which enters the sales prospects to their real location on the map by street address.

2.4.4 Layers

Layers are objects on the map that consist of one or more separate items, but are manipulated as a single unit. Layers generally reflect collections of objects that you add on top of the map to designate a common association. The Google Maps JavaScript API manages the presentation of objects within layers by rendering their constituent items into one object (typically a tile overlay) and displaying them as the map's viewport changes. Layers may also alter the presentation layer of the map itself, slightly altering the base tiles in a fashion consistent with the layer. Note that most layers, by design, may not be accessed via their individual objects, but may only be manipulated as a unit.

(<https://developers.google.com/maps/documentation/javascript/layers>)

The need to modify the outlook of Google Maps for the product was because the default skins consisted plenty of unnecessary markings which were seen as distraction. The aim was solely to point out where the sales prospects are and what is the status of them.

3 THE CURRENT FUNCTIONALITY OF THE PRODUCT (VERSION 1.0)

3.1 The Introduction of Functionalities

The core entities in the system are sales prospects which are treated as companies as the system is designed for business-to-business sales. The main idea is to keep track on sales situations relating to these prospects and also to keep track on sales activities done by users in the system.

Although sales target companies are currently called leads in the system, this document uses the term prospect which is more descriptive. Lead is a sales opportunity where some sort of contact initial has been made. Prospect is also a sales opportunity which is considered as a sales opportunity by the seller without any contacting made yet. The terminology in the system is still under refinement and can be redefined still in the future.

On top of the views presented in this chapter, there is users view in the system where user accounts can be managed.

3.1.1 The User Roles

The Application consists three different user roles, sales manager role and salesman role. The idea of these are that sales manager is the director of salesmen and sees all the sales location and activities in the system. The sales manager roled user can assign task to users in the system.

The salesman roled user can see only sales prospects assigned to him. So the sales manager's role is to direct and follow, salesman's role is to execute. Salesman roled user can create new sales prospect for himself but cannot assign prospects to anyone else but himself.

If sales organization wants to collaborate with all sales prospects so that all users can see all prospects and assign them to each other, then every user will be set as sales managers.

On top of sales manager and salesman roles the system consists administrator role. The administrator can add and delete users and reset user passwords but the other functionality is the same as sales manager's.

3.1.2 The Overview

The Overview is the dashboard which summarises the sales activities and situations. It consists a map view where user can see the sales locations either allocated to him or if user has manager role in the system, he sees all the locations. The statuses of the sales locations are indicated with different colours. In current version there can be 6 statuses:

- Unallocated / light grey = the prospect is entered into the system but not being allocated to any sales person
- Pending / dark grey = The prospect has been allocated to be handled by a sales person, but no sales activities for this prospect has not yet been done
- Contact / Blue = The sales prospect has been contacted and there has been an effort to initialize the sales process
- Offer / Yellow = The sales process had led into phase of handing a proposal
- Won / Green = The sales process had led into a deal
- Lost / Red = The proposal was given but it didn't lead into a deal

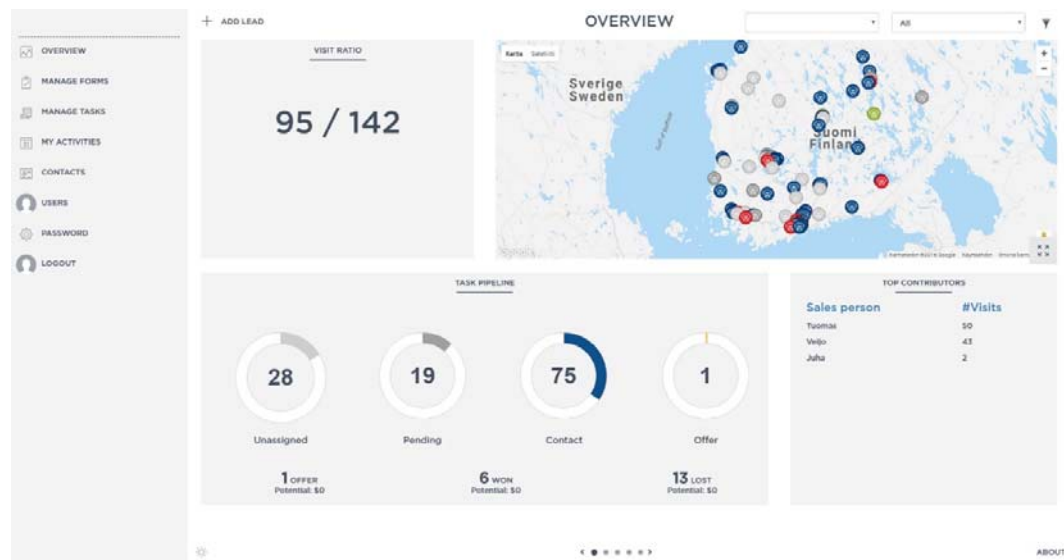
By clicking the prospect location dots on the map user can enter into specific details page of each prospect called Lead Details. The top section of the view has some filter functionalities for filtering out the prospects. The filtering by customer type and region are provided in the very same view but deeper filtering can be done by clicking open filtering window from top right corner icon. From the window user can filter by the name of the prospect, by the name of the project or by the name of the sales person inside the system.

On the left side of the map there is simple screen showing how many targets have been contacted. The manager roled user can see numbers concerning all prospects in the system, where salesman roled user can see only the ones allocated to him.

In the lower section of the screen shows lead pipeline where user can see the amount of sales prospects by the status. The manager roled user can see all prospects, where the salesman roled user can see only the ones allocated to him/her.

In low right corner is a section where ager roled user can see how many sales visits (contacts) each user has. The salesman roled user can see the reaons for his lost sales prospects.

Finally this view also contains a button from where user can create new sales prospect into the system.



PICTURE 4, The current outlook of overview page

3.1.3 Lead Details

PICTURE 5, Lead Details

The Lead Details view contains the specific information about the sales prospect and is divided to two sub-views. Details sub-view contains the address and categorizing details of the prospect company as well as contact persons. The Questions sub-view contains the information of the sales situation. It consists a freely composable question set of pre-made questions which are seen relevant in selling of certain product. There can be four types of questions.

- Alternative answer question with one possible choice of answer
- Alternative answer question with several answers
- A question that can be answered with free text
- A quantitative question which is answered by a number. The answer determines the size of the dot on the map (can be for example sales potential in EUR). There can be only one quantitative type of question.

Other functionality in questions sub-view are selector for next contact/meeting date and slider button to chance the sales situation status. Also user can leave a free text

comment which is logged by the name of the user and with the time it was left. This is useful when doing sales work in collaboration.

The screenshot displays a CRM interface for a lead named 'DATALABEL'. On the left is a sidebar with navigation options: OVERVIEW, MANAGE FORMS, MANAGE TASKS, MY ACTIVITIES, CONTACTS, USERS, PASSWORD, and LOGOUT. The main content area shows the lead's details: ASSIGNED TO: Jaha Sepelinen, NEXT APPOINTMENT: The appointment, and FORM: Vyyantic_USA. Below this, there are several questions about RFID products and inquiries, with a 'Comments and notes' section on the right containing two entries with timestamps.

PICTURE 6, Lead Questions

User can access to one prospect's details from all views which include handling of prospects in list format or map format.

3.1.4 Manage Tasks

Manage Tasks view shows sales prospects as a list and is used to assign them to different users. This view also consists free text search field which can be used to filter prospects by search string. Currently the search includes prospect name, status, customer type and project type parameters. The same filtering window is also accessible in this view as in overview and has the same filtering possibilities (filtering by the name of the prospect, by the name of the project or by the name of the sales person).

When user is selecting certain prospects to be assigned to certain user, he/she can also select the desired set of questions to be used in those prospects. The selected set of question will then appear in those prospects' questions sub-view.

MANAGE TASKS

Showing 1 to 15 of 142 entries

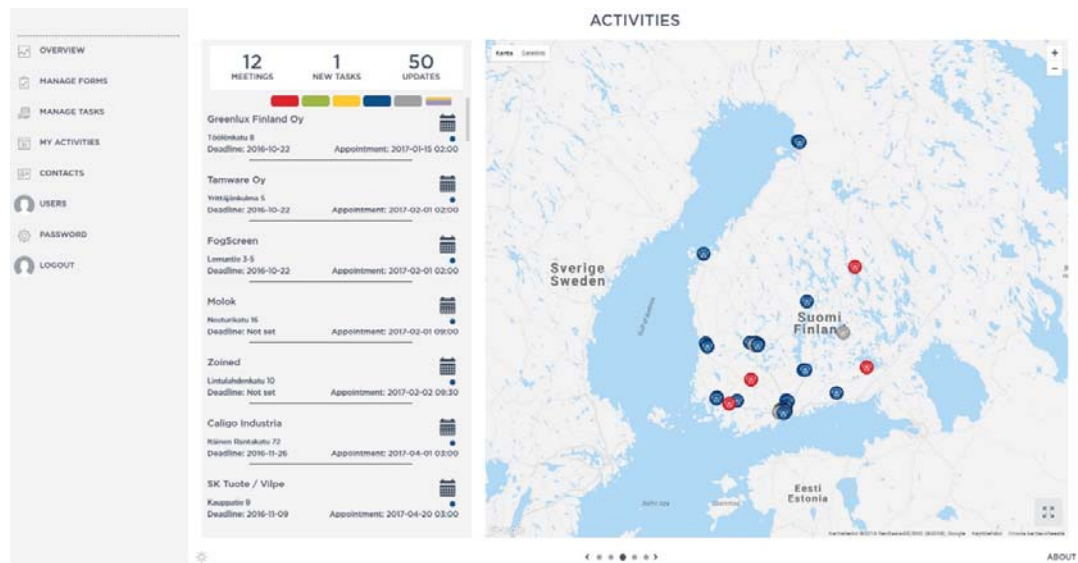
Lead name	Status	Assignee	Expected DoC	Next app
Lifa Air Oy Ltd	won	Juhu	2016-10-22	1970-01-01 02:00
Tecwill	pending	Juhu	2016-10-22	
Tana Oy	pending	Juhu	2016-10-22	
Polamatic Oy	pending	Juhu	2016-10-22	
Voyatic	won	Tuomas	2016-10-22	
Nordic ID	pending	Juhu	2016-10-22	
Smartlock	won	Veijo	2016-10-22	
Focalpac Oy	won	Veijo	2016-10-22	1970-01-01 02:00
Erikkilä	lost	Veijo	2016-10-22	2016-11-09 02:00
CyberLightning	contact	Tuomas	2016-10-22	2016-09-27 03:00
Distance (Obotaku)	lost	Tuomas	2016-10-22	
EAtach	contact	Tuomas	2016-10-22	2016-09-28 03:00
SSolutions	contact	Tuomas	2016-10-22	2016-11-01 02:00

PICTURE 7, Manage Tasks

3.1.5 My Activities

My Activities view is used for scheduling and keeping up with user's own sales activities. User can see new tasks by clicking new tasks -tab. New tasks are the tasks assigned to user that he hasn't yet opened at all. Those prospects where next meeting date is set can be also seen by clicking meetings -tab. By clicking updates -tab the prospects with status changed to anything other than pending are shown.

The list is arranged by date so that the closest date is always on top. This way user can see easily which sales activity he is supposed to do next. The meeting dates can be set or altered also from this view.



PICTURE 8, My Activities

3.1.6 Contacts

Contacts view includes all the contacts in the system and is the view where contact details can be edited. It consists free text search field to search desired contacts. There is easy navigation between lead details and contacts so user can see to which prospect company the contact belongs or move from lead details view (which lists the contacts belonging to that particular prospect) to more comprehensive contact details to contacts view.

3.1.7 Manage Forms

Manage Forms view is available only to administrator and sales manager roled users. It is used to import sales prospects and questions sets in excel format to the system. The upload leads allows user to upload leads with their details from spesifically formatted excel file.

The upload forms allows user to upload named sets of questions with their answer alternatives from spesifically formatted excel file.

Also users of the system can be imported alternatives from excel file. The Manage Forms -view also has feature to export all data out from the system in csv-format.

3.2 Deployment

The deployment of the product was made in two phases. The first pilot customer had first one month familiarization and testing period which was established also to support final testing of development team to ensure that all functions are usable enough. Customer was introduced to ticketing system to report problems and bugs. The same ticketing system is used by the development team internally.

The technical support of the product has been provided in two levels. The first support level is the author, who provides technical and intellectual support for using the features of the application. The second level is Ixonos' production team, who will take care of deeper problems as bugs or modifications to the system.

3.3 Reception and Observations Concerning the Functionality

The current understanding about the functionality is that this is the minimum set of functionality that sales team can manage with. Supporting functionality may be required in the future or the usability of existing features may have to be still improved. The current functionality is the core functionality that defines the essence of the product.

The client feedback so far has given credit to simplicity and easiness of the system. Also the visual and summarizing interface has gotten much positive feedback. The first user experience is proving that usability objectives of the product have been achieved.

One of the main technical concerns of product based on Google Maps not being as fast and as responsive as required in this context is proving out to be redundant. The product is showing already great responsiveness when used from the server located in different part of the world. This may reduce the effort initially thought to be able to cover different sales locations in world in the same application instance to the the customer simultaneously, which will be one of the requirements further on undoubtedly. However, the amount of experience provided by clients is still too little to say anything conclusive about the value the product generates for the user organizations.

The development team's intent is to keep the solution easy and simple. Although there might be demand for more complex functions in the system which could provide more possibilities for users to get desired outcomes, it is not the only driving factor the solution leans on. In sales efficiency comes from systematic concentration on relevant and potential actions and the system should guide user in this process. The end result should be a set of functionalities which makes it possible to do and to concentrate on the essential.

4 MARKET ENTRY CHALLENGES

The sales IT sector is currently undergoing major transition, which is because mobility has provided new possibilities and approaches to support daily sales work. Traditionally the Sales IT applications have been available for users in the office. This reflects still today from the user interfaces of the CRM systems for example, which are being traditionally designed for desktop and laptop use.

The rise of mobile applications has resulted in various different apps being born, supporting some specific area of sales work. The developed product has also taken the specific area of reporting and monitoring of sales as challenge it solves. The reporting in present day offers much more possibilities to report sales insight directly and instantly on the sales trip compared to the past.

The organizations' work processes are evolving with the products making new processes possible. The developed product is not merely solving existing problem but offering possibility to create efficiency by changing processes with the aid of technology.

One of the sales IT sector's major problems is that it consist so large number of different areas that it is impossible to cover everything with one application. This leads into complexity as the users have to use many applications in their work. For example customer information and proposals in CRM, scheduling and e-mails in their own application, telecommunications in some other application and so on. It creates the need to connect these applications together in fashion, that would make the work processes as smooth as possible.

One of the biggest challenges for the developed product is that will it generate enough value for the users to take it alongside other applications in their daily work processes. It has to show clear value or otherwise it is seen more as a burden bringing just one external application to where there is already many.

People are frustrated with current systems and want to be part of something that is the future. (Benioff & Adler, 2009, 9)

The marketing of the product must highlight that the process and the solution that supports it, is something that will be the way of working in the future, not that we are just bringing new tool to markets.

Position yourself either as the leader or against the leader of your industry. Every experience you give a journalist or potential customer must explain why you are different. (Benioff & Adler, 2009, 24) Much of the input to the application was gotten from usage of the industry leader salesforce.com itself and derives from the tasks the developers could not achieve with it or was too expensive compared to the value we could achieve by obtaining required user license. In this sense we have been doing plenty of work in differentiating from other products in the market, but the problem is that many of the CRM's have other functionalities (proposal management for example) that we are not able to provide currently. It means that you can't easily get rid of the old system and take our solution as a replacement but we need to integrate with the existing systems (if customer has already some) and excel in our area in sales IT infrastructure so well that it benefits to take it alongside with other systems.

4.1 Service Model

The value generates from the entirety of the use process, which include first the effort of contacting and gathering the sales insight which can then be analysed and directed into correct and potential following sales actions. The current idea of providing value to customers is to offer comprehensive service which includes the application by Saas-model and consulting services that can be bought on top of that to get help for development and execution of the sales process and for data analysis.

5 FURTHER DEVELOPMENT DIRECTIONS

5.1 Technical Development Directions

From technical part the next challenges will be the integrations to other system. The integrations to calendar softwares to sync the sales meetings between calendar and the developed application and to CRM's to get company and contact information and possibly to transfer back information about done deals, are already visible in the next releases.

Also the need for technical infrastructure to provide information to user end in different parts of thw world fast from same database is coming up already. This however, might turn out to be easier than though as the application is working very fast when used from remote server currently. What remains to be seen is the performance, when the amount of simultaneous users grows significantly higher.

Other than this, the most technical development ideas relate to features provided by mobile phones. One is implementation of voice-to-text functionality, when inputting the question data to the system for example in sales meeeting. This would require a native app, so it is not visible in the near future.

5.2 Direction of Educational Sales Application

One of the differenciating factor in the product compared to CRM's is that one can analyse the sales insight as well as how the users are able to produce in the sales and how they manage to gather the insight and use it in their benefits. It has raised an idea to position the product more as educational application of selling. This direction would require technically more analytical functionality. It would mean that the development should be then directed into more analytical direction instead of being simple, fast and effective solution for reporting and following sales situations and deciding next steps upon that information.

5.3 Direction of Being an Extension to More Comprehensive Sales Applications

One possible future development direction is, that the application is positioned as an extension to leading CRM systems. It would bring more depth into managing the process between searching sales opportunities and making a deal, with it's particular anylisis and reporting features. The biggest benefit in this option is that ithe product wouldn't have to compete directly with CRM's.

6 CONCLUSION

This thesis summarized the development work of modern web based sales management application done in collaboration by Nordic Industries Development Oy and Ixonos Oyj. The phases of development, development criteria and the most suitable technologies to reach the objective were introduced.

The writing of this thesis happened in time, when version 1.0 of the application was just given for pilot use. The research part of the work was to evaluate the product in it's current state and also to evaluate the further development directions by assessing the market challenges the product will face.

It was stated that the technical and usability requirements were fulfilled in the developed product almost better than expected. The easiness, simplicity and responsiveness which were seen the key factors in the beginning were achieved. The performance of the product was surprisingly good but there hasn't been tests with larger user volume yet.

The biggest threat in rolling out to markets was seen in positioning of the product in sales IT infrastructure. It was stated that it is difficult to foresee the value of the product before more client feedback is received. It was also pointed out that the value generates from the total service and may require customer organizations to adapt new work processes.

Finally, few alternatives for stronger market positioning of the product were introduced. The success depends on many factors, for example from marketing message, marketing budget and how ready organizations are to change their processes. It is evident however, that the the product have to be still further developed.

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8 APPENDIX