DEGREE THESIS

Tuuli Haahtela

IT Service Commoditization
Case: Contactor

Tuuli Haahtela

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Author:	Tuuli Haahtela
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Supervisor:	Sveinn Eldon
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Abstract:

The aim of this project is the commoditization of an IT service product called Contactor Human Resource Management System so that it can be provided to the customers as a service (Software as a Service (SaaS)). SaaS -model -model is not very commonly used at this time in Finland, but the commoditization should be taken into account as a relevant option in providing IT products and services as it can often provide great benefits for both the IT supplier and the customer. When every aspect of the commoditization process is well thought of and carried out, the whole process of providing the service becomes simplified and thus quick and easy as well as cost effective to put into practice. Also when the internal commoditization is properly done, further research and development is easier to accomplish and the company is also less vulnerable in terms of fluctuation such as changes in for example personnel. Commoditization process consists of product or service documentation and therefore this thesis work also includes producing all the necessary materials in order to introduce Contactor to the markets.

The thesis is a development project commissioned by Haahtela HR Oy which is a Finnish IT company, specialized in producing human resource management systems and digital tools to support human resource management processes. The aim is to develop from the theoretical data a well functioning Service product concept. As well as developing based on theoretical data the primary method used in this thesis is qualitative observation based on the authors work experience in the IT field during the last ten years.

As a result of the commoditization process of Contactor a well functioning service product concept was formed to be introduced to the customer markets. All the necessary materials and documentations concerning Contactor were also produced.

Keywords:	Commoditization, Service Commoditization, SaaS -model, Documentation

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OPINNÄYTE

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Tiivistelmä:

Opinnäytetyön tavoitteena on Contactor Henkilöstöhallintajärjestelmä tuotteistaminen siten, että sitä voidaan tarjota asiakkaille palveluna (Software as a Service (SaaS)). SaaS-mallin käyttö ei ole vielä kovin yleistä Suomessa, mutta jatkossa IT tuotteiden ja palvelujen tuotteistaminen tulisi huomioida varteenotettavana toimintamallina IT-alalla sillä se pystyy usein tarjoamaan suurta hyötyä niin toimittajalle kuin myös asiakkaalle. Silloin kuin tuotteistamisprosessi on kokonaisuudessaan hyvin suunniteltu ja toteutettu, koko palvelun tuottamisprosessi yksinkertaistuu ja näin ollen uusien projektien toteuttaminen käytännössä on helppoa, nopeaa ja kustannustehokasta. Edelleen kun sisäinen tuotteistaminen on tehty oikein, myös jatkotutkimus- ja kehitystyötä on helpompi tehdä ja yritys on lisäksi vähemmän haavoittuva sisäisten muutosten kuten henkilöstön vaihtuvuuden suhteen. Tuotteistamisprosessi koostuu pitkälti tuotteen tai palvelun dokumentaatiosta ja tästä syystä opinnäytetyön olennainen osa on tuottaa tarvittavat dokumentaatiot jotta Contactor – järjestelmä voidaan esitellä markkinoille.

Tämä opinnäytetyö on luonteeltaan kehitysprojekti. Työn tilaaja on Haahtela HR Oy, joka on henkilöstöhallinnon tietojärjestelmien ja henkilöstöhallinnon prosesseja tukevien digitaalisten työkalujen kehittämiseen ja palveluiden tuottamiseen erikoistunut innovatiivinen IT-alan yritys. Työn tarkoituksena on teoriatiedon kautta kehittää tuotteistettu palvelukokonaisuus. Teoriatiedon pohjalta kehittämisen lisäksi pääasiallisena tutkimusmenetelmänä on käytetty kirjoittajan työkokemukseen IT-alalla viimeisen kymmenen vuoden aikana pohjautuvaa kvalitatiivista havainnointia.

Contactorin tuotteistamistyön tuloksena syntyi toimiva palvelutuotekokonaisuus joka voidaan esitellä asiakasmarkkinoille. Osana kehitystyötä tuotettiin myös kaikki Contactor-järjestelmään liittyvät tarvittavat dokumentit.

Avainsanat:	Tuotteistaminen, palvelun tuotteistaminen, SaaS -malli, dokumentaatio
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1. Introduction

This thesis discusses on the commoditization of Contactor Human Resource Management System by the use of the Software as a Service (Saas) -model. In the thesis commoditization is referred to in the sense of cultivating the product or service into a competitive merchandise to the markets. The concept of commoditization both in general and specifically in the Information Technology (IT) field is being studied as well as the special characteristics of SaaS -model – model and of IT service commoditization. The concepts of a product and service as well as the process of commoditization are also studied, both in general and concerning Contactor Human Resource Management System. The nature and purpose of Contactor Human Resource Management System as well as the structure of the System and the commoditization process concerning Contactor are reviewed in detail. The critical documentations concerning Contactor Service that are a key element in commoditization process are also produced as part of this thesis.

SaaS -model -model is not very commonly used at this time in Finland and most of the IT suppliers still offer customer specific products and projects. The commoditization of IT products and services should however be taken into account as a relevant option in providing IT products and services as it can often provide great benefits for both the supplier and the customer. Therefore it is important to not only understand what commoditization both in general and in reference to IT services means, but more importantly how it is actually carried out in real.

When every aspect of the commoditization process is well thought of and carried out, the whole process of providing the service becomes simplified and thus quick and easy as well as cost effective to put into practice. Also when the internal commoditization is properly done, further research and development is easier to accomplish and the company is also less vulnerable in terms of fluctuation such as changes in for example personnel. In whole commoditization

of Contactor helps the company to be more effective and profitable and to take on a larger customer base.

2. Research Approach and Methods

2.1. Research Objective

The thesis work is commissioned by Haahtela HR Oy which is a Finnish IT company, specialized in producing human resource management systems and digital tools to support human resource management processes. Haahtela HR Oy is part of the Haahtela Corporation that holds a leading status as a provider of Building Construction Management and Real Estate Management systems and services.

The aim of this project is commoditization of an IT service product called Contactor Human Resource Management System so that it can be provided to the customers as a service. In order to do this it is important to understand the process of commoditization and the idea of the SaaS -model. Commoditization process consists of product or service documentation and therefore this thesis work also includes producing all the necessary materials and documentation for marketing, sales and training purposes in order to introduce Contactor to the markets.

2.2. Research Methods

The thesis is a development project. The aim is to develop from the theoretical data a well functioning Service product concept that makes it easier to provide the Contactor Human Resource Management System for clients use. The theory of SaaS –model and different guidelines on how to carry out a commoditization of a product or service, is thus used as a method of planning and executing the actual commoditization of Contactor. As well as developing based on theoretical data the primary method used in this thesis is qualitative observation based on the authors work experience in the

IT field during the last ten years. The author has been part of the research and development of Contactor Human Resource System during the whole process and has been in charge of the further development, marketing and sales of the company's products and services for the past few years. In producing the documentation concreting the commoditization company's specialists in different areas, such as marketing and law, have been consulted as well.

2.3. Research Questions

1. What is the benefit of commoditizing software services, and particularly how does using SaaS -model benefits the Information Technology (IT) supplier?

1.1 What does commoditization of a Service mean and what sectors does it consist of?

1.2 How is the commoditization of a service as a SaaS –model carried out and what are the main documentations needed to produce?

The aim of the main research question is to learn and understand the reasons for an IT supplier to rely on commoditization of services and SaaS -model – model. The sub questions concrete the idea behind commoditization of services as a whole and the contents of it through as well as describes the actual process of commoditizing Software Services as SaaS –model more deeply.

3. Theoretical Background

3.1. Commoditization

The word commoditization has evolved from the Business theory. There are two ways to define commoditization. Often commoditization is referred to as the transformation of goods and services into commodities.

The internet business dictionary defines commoditization as "Almost total lack of meaningful differentiation in the manufactured goods. Commoditized products have thin margins and are sold on the basis of price and not brand. This situation is characterized by standardized, ever cheaper, and common technology that invites more suppliers who lower the prices even further." In reality commoditization can be carried out in various levels and in stages. The commoditization of most of the products and services is only partial and very rarely the commoditization process is absolute. On the other hand it is also rare that there is no commoditization of a product or service at all. The commoditization of a service can be considered total when the property and sales rights could be sold forward (Sipilä, 1996, p.12-13).

Commoditization can also be referred to in the sense of cultivating the product or service into a competitive merchandise to the markets. This is the situation when commoditization does not result in the product or service becoming a commodity in the context of competition but rather in the company's internal context. In this case the commoditization merely enables the company to make the production and provisioning more efficient. Internal commoditization aims to ensure that the administrative and process creating work that is already ones done does not have to be done again. This includes for example work practises, and guidelines, databases, research and development procedures as well as internal product, service and process descriptions. External commoditization is possible to properly carry out only after the internal operations are systemized by commoditization. (Sipilä, 1996, p.47-48) SaaS –model is based on this principle.

In this the logic behind commoditization is to lower the customer-specific work load needed to produce the product or service. (Sipilä, 1996, p.20-21) Ideally the product or service that the customers purchase is a readymade

unit. In order to enable lowering the customer –specific work load it is important to establish the production and provisioning processes as well as the sales and marketing processes including the materials and documents used. When the service and its content is properly determined and documented, the personnel of the company have a good understanding of the service offering and thus the provisioning, developing and marketing becomes easier and more straightforward (Sipilä, 1996, p. 20-21). Commoditization is commonly referred to in the context of creating new product but it also involves the development and enhancement of existing products.

The downside of commoditization is that the products or services are more easily copied by competitors, as it is easy to compare them because they are well documented. This can lead to price competition and thus cut down the profits. (Sipilä, 1996, p.21) Scalability, that is one of the biggest advantages of commoditization, it is also one of the weaknesses. As commoditization is a focus on product and differentiation and value are a focus on user experience, the core application from a product should be transformed into a great user experience. The idea behind a service is quintessence as it is essentially random for the customer to choose if the products are identical. The focus should be on what customers actually want or need to perform in doing business and the application should be designed around these. (Giurata, 2008). Monopoly status is of course beneficiary. Customers quite willingly pay extra for something that they can't get elsewhere, and it is also more difficult to bargain on a price of a unique service. Most commonly the differentiation is about the actual features of the product or service, but differentiation can be achieved also for example through pricing or provisioning system, or by the configuration of services or effortlessness of the purchasing process.

It is important to execute every aspect and area of commoditization with great care, as even the name created for the product or service has an impact

on the image the customers perceive on both the service and the whole company.

3.2. Software as a Service –model

"Software as a Service is time and location independent online access to a remotely managed server application, that permits concurrent utilization of the same application installation by a large number of independent users (customers), offers attractive payment logic compared to the customer value received, and makes a continuous flow of new and innovative software possible" (Sääksjärvi *et al.*, 2005).

Software as a service (SaaS), is a business model, where the IT supplier produces and maintains the service. SaaS applications are often produced via internet so the model is sometimes also referred to as the www-application model. SaaS –model enables even start-up companies to compete on the ever demanding IT field along with the big players who dominate the business. The idea in SaaS-model is that a one software product can be used by several customers simultaneously providing the IT supplier extensive benefits in scaling the production and provisioning. The supplier also controls the operational environment itself and is not reliant to customers IT-infrastructure as all the installation and maintenance work is done at the suppliers end. This also enables the supplier to optimize the infrastructure to the specific software application. The model also makes it easier to predict both the income and the expenses as the model is based on continuous maintenance costs.

The model is very cost-effective for the customer as well as it does not require a separate infrastructure for the software nor does it require personnel for maintenance. It is also faster to establish as there is no installation of the software and because of the nature of the software service the updating is also continuous and does not require any action from the

customer. Typically the customer only pays for the use of the software, but in case of very sophisticated software applications that include a certain additional value such as a novel standard of activity, there is also a licence fee for the right to use application.

Even though SaaS -model -model offers remarkable cost advantages to both consumers and businesses, there are downsides too as Paul Giurata, points out; "with SaaS, it is rare that you have a killer idea that revolutionizes the industry and that cannot be readily copied by another team of developers. You may indeed have developed great product functionally and that product might even be easy to use or look great. But if you are not providing that revolutionary, one-in-a-million grand innovation, then you end up delivering a commodity - something that can eventually be duplicated by the competition. " (Giurata, 2008)

The common aspects of SaaS -model-model applications are that:
- the software is used via internet (as a www-application)
- the IT supplier produces and maintains the service
- there is a one product that are used by several customers simultaneously
- the user and the owner of the software are distinct

The most important thing whit SaaS –model is that it should be designed with scalability in mind from the start and the techniques of interaction design, information architecture, accessibility, user interface design and user-centred design that are typically applied to the design of the core application should be used and extended beyond the product to marketing, sales, provisioning, training, support, billing, and so on. The technical subtleties and great visual design can add value and be part of the formula but only when they actually assist a user in accomplishing their high value tasks. (Giurata, 2008)

3.3. Commoditization process

Commoditization is a process that aims on launching a competitive product that satisfies the customer needs into the market. The main sectors of the process are the idea (product or a service), marketing and sales, provisioning, training and support and pricing.

3.3.1 The Idea – the product

The commoditization always starts with an idea. The Idea is then developed into a product that has demand in the customer markets. The initial idea to the product can come for example from within the company, from customers, competitors, suppliers etc. However, thus the key part of creating a successful product is then developing superior concept and eventually the product from the idea. (New Product Development, 2010)

Product is often perceived as a concrete object, but it can also be intangible such as service. In this case the product is often referred to as a service product. The product is however not just the actual product or service, it also includes the brand and the support services such as warranties, customer service and maintenance. These complementary parts of the product are alluring factors of the product and are a way for the company to differentiate the product even in case of a pure commodity product and thus creation a competitive edge. Because of this, products are changing more and more into service products. (New Product Development, 2010)

Especially in IT field the actual products are diminishing and the business is shifting increasingly into producing services. Because software products are mostly intangible they have actually always resembled services, as they are often sold as licences to use the software. Also in the IT field even the actual products such as hardware almost always include complementary parts, such as application support and maintenance, to some extent. (New Product Development, 2010)

3.3.2 Marketing and Sales

Marketing is the single most important sector of commoditization process after the actual idea that forms the product. It is important to plan how and where the product or service is introduced to the customer markets and what kind of marketing materials should be produced. Marketing aims to cause the customers' attention and interest to the product and make the customers want to buy the product. This is called the AIDA-model, Attention, Interest, Desire and Action. Thus the materials used to advertise the product are at key position. (New Product Development, 2010)

Nevertheless, the marketing channels are equally important, and the marketing strategy and channels should be carefully planned.   When choosing the right channels to market the product, several aspects should be taken into consideration. It is important to know what is your target market and where do your potential customer look for new solutions for them. Especially in business to business marketing it is also crucial to know who probes the products and who is the actual decision maker and what are they looking for in terms of the product.
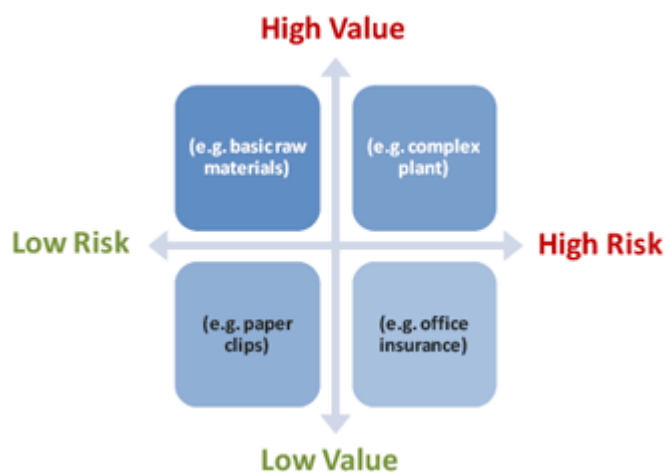

Figure1. Purchase categories in business-to-business marketing ((New Product Development, 2010)

Depending on the products value and business risk the buyers within the company are different. Recognize who the potential buyer(s) for the product is helps you to determine the key aspects of the product that the decision maker is interested in.

If the product is low risk, low value product, (See Fiugure 1) the buyer is often a grass roots level person and will only be interested on the short term hands-on solutions. On the other hand if the product is high value, high risk product, there are often more than one decision maker and they are primary stress is in the bigger picture. (B2B International, Business-to-Business Market Research)

This also applies to sales and therefore it is vital that the sales person focuses on the right aspects of the product. The sales material should also be designed this in mind so that it substantiates the sales person and enables good sales conditions.

Often sales are outsourced to retailers and it then becomes even more important to plan the sales process carefully in order for it to stay in the same focus with marketing. When selling high value, high risk products it can be hard for the sales people to comprehend what makes the product superior and thus use the right sales arguments. Training the sales people and producing proficient sales material helps with this.

It is easier for the sales organization to sell a readymade service package to the customer when the service can be represented comprehensively already prior to the beginning of the actual project. Purposive documentation is at the same time a chain of events that reveals the characteristics of the product or service including the strengths and weaknesses. Consequently the service can be developed into a well functioning, first-rate service solution. (Sipilä, 1996, p.74-82).

3.3.3 Provisioning

Provisioning in its heart simply refers to the act of supplying a service to an end user. However in case of providing an IT service via SaaS-model to customer, it actually includes several separate sectors. Provisioning the service can also include for example the creation and modification of a defined set of versions or characteristics, service implementation, application integrations and customer-specific customisation.

Both research and development of the IT system the distribution of the Service can also be thought of parts of provisioning in the larger meaning of the process.

3.3.4 Training and Support

When dealing with IT products, training and support are an essential part of the product and should be planned carefully before launching the product into the markets.

Planning the training includes deciding on the method and place of training, the extent of the training and producing the proper training materials. If the product or service is a specialist work tool, such as specialized software, it requires much more specific and extensive training than if the product is just a basic gadget.

The extent and standard also depends on the nature of the product. Sometimes even providing a user manual can be adequate for the customer support, but if the product is a business critical tool support must be much more comprehensive and a specialized help-desk is needed to provide continuous support.

3.3.5 Pricing

Pricing is one of the hardest parts of commoditization. Pricing is a complex matter and in which several things should be considered such as demand, market competition, fixed and variable costs, general and service

specific goals and pricing policy. The later holds within the decisions about the price level and the message it delivers, pricing model e.g whether the customer is being charged by the hour, by the output or by the reserved resources as well as the terms and method of payment and the method of sales.

In a non-competitive environment, the pricing should be decided based on operational adapted purpose and cost effectiveness. The price is considered to be right when the customer is slightly reluctant as regards to the price but still purchases the product or service and repurchases again even when there are options.

In general pricing strategies can be split into four main categories: premium pricing, penetration pricing, economy pricing and price skimming (See Figure 2).

Figure 2. Pricing categories

Premium Pricing refers to a high price which is used when selling luxuries. The premium pricing should be used if there is a substantial competitive advantage, in other words if the product or service is a unique. In case there is a substantial competitive advantage, but the advantage is not sustainable, the Price Skimming approach can be used. What it means is that the price level is first set in high, but after the competition is formed into the market, which is inevitable as the high price draws new competitors into the market, the price level drops down as a result of increased supply. This gives a head start to the company and by the time there is competition the product or service can be produced with a lower cost and the pricing strategy is changed.

When this is not the case, as it often is, the right pricing approaches are either Penetration pricing or Economy pricing. Penetration pricing aims to get a market share with a new product or service by setting the price level artificially low. The price level in Economy pricing is also low, but due to keeping both fixed variable costs of producing the product or service low. (Marketing Teacher Ltd. 2010)

Traditionally the price in the IT field has been formed by charging an acquisition price which typically is very high and a yearly licence price which is more of nominal of its nature. With SaaS –model this method of pricing is however different and the price usually consists of a small acquisition price and a monthly maintenance costs of the service. "Pricing strategies are one of the most important challenges and decisions for today's IT service providers. Pricing strategies for IT services have traditionally focused on covering costs, achieving desired margins and meeting the competition. These pricing schemes range from simple approaches, easily copied by competitors, to complex models with high management costs. In order to be successful in today's competitive business world, the service providers need to define their pricing strategies by considering the customer's perceived value from the service they

receive rather than using traditional cost-based pricing strategies." (Harmon et. al, 2009).

The earning logic in other words has completely turned upside down, and often it is criticized that SaaS -model-model is cutting the IT providers profits' down as there is no high price acquisitions anymore. This is only part of the truth though, as the continuous payments supplement the total costs and in a long run the price level evens out. Even though commoditization is posing new challenges for the IT suppliers in pricing all in all it is actually creating new opportunities as it enables the customer to make the purchasing decision easier as the acquisition price is not so high and the service package is more defined and comprehensive.

It can also be argued that the overall profitability of the company increases as the producing and provisioning costs are lower because of commoditization and commoditization also enables fixed pricing that can allow higher price level. Fixed pricing is also beneficial for the company, as it makes billing easier and facilitates budgeting. Accurate and solid specification also only helps avoiding bargaining and tendering which both are negative factors in the sense of maintaining the contribution margin. (Sipilä, 1996, p.19-21).

4. The idea - Contactor Human Resource System

4.1. General overview

Contactor is a modern Human Resource System that works via internet. Contactor has been introduced to the Finnish customer markets in 2009. All Immaterial Rights in relation to Contactor are owned by Haahtela Companies.

The network-based Contactor is a comprehensive HR system. This real-time system enables human resources processes that are easily managed, transparent, and can be reliably predicted. As the result of extensive development and testing, Contactor is a tool specifically designed for labour-intensive industries.

Contactor supports employment and staff processes in an exceptionally versatile way: scheduling shifts, knowledge management, recruitment, and the communication between employees, management, and human resources management. Additionally, the system produces versatile reports important for human resources management and the financial results of the business. All services are supported by approval chains, parts of the programme aimed at different user groups, and multiple languages. The final touch to the system is the layout, which matches the organisation's own visual identity.

The web-browser-based Contactor can be combined with the Pocket mobile application, which enables the user to reach employees anytime and anywhere.

Contactor consists of three main parts; Employment administration, Work shift administration and Salary administration. There is also Support Functions, including monitoring, reporting and communications that support the process as a whole (See Figure 3.).

Figure 3. Main sectors of Contactor

EMPLOYMENT ADMINISTRATION

Recruiting

- Creating and publishing a job advertisement in the desired application channels
- Electronic recruitment process and employment contract "from applicant to employment"
- Automatic employee knowledge analysis during the application stage
- Archiving and utilization of the applicant database in the future
- The possibility to create automatic responses for the different stages of the application process
- Quickly contacting many applicant groups at the same time

Knowledge database

- Updating, monitoring, and reporting the employee knowledge profile
- Defining the work tasks needed in the organization and their required standard

Message functions

- Easy-to-use message functions for both single messages and mass messaging between employees and management
- Automatic documentation and archiving of the messages

WORK SHIFT ADMINISTRATION

Calendar functions

- Contactor combines the organization and employee calendars
- Employees can indicate their desires regarding work shifts
- Managers will be up-to-date about the availability of their employees 24/7

Scheduling

- Automatic determination of the need for staff, based on business history
- On the shift list, the system displays the suitable shifts for each employee to the management
- When adding employees to the shifts, it is possible to consider the employee's wishes for free time
- The system budgets the salary costs involved in each period

Substitute administration

- Optimal division of work and staff by offices

- The need for substitutes and the staff knowledge profiles can be made to meet automatically
- Easy access to substitutes using electronic message functions

Shift confirmation

- The whole process from opening a shift to confirming an employee is displayed in real-time to all parties.
- The employee and management confirm the accomplished shifts on their Extranet page.
- When the management and HR have confirmed the accomplished work hours, the data automatically transfers to salary payment.

SALARY ADMINISTRATION

Calculation of salaries
- The system automatically produces salary data according to collective agreements.
- The system verifies the accuracy of the salary data.
- The digital mass transfer of the salary data to the company payroll system.
- It is possible to electronically transfer the pay slips directly to the personal Extranet page of the employee

SUPPORT FUNCTIONS

Monitoring
- Employment documentation and history as well as message history are digitally archived in the system.
- Reporting models that support business
- Real-time reports constantly keep the management and HR up to date.

Reporting
- HR
- Invoicing

- Salary
- Monitoring
- Budgeting
- Statistics

Communication
- Targeted mass communication significantly reduces the communication time.
- Information can also be disseminated in the news section of the system and on the unit and employee Extranet page.

Web-based Contactor is logical and easy to use. The real-time system allows for easily manageable, transparent and reliable ways to anticipate human resource management processes. Contactor is a tool for labour-intensive sectors that has emerged from an extensive development and testing effort. Contactor supports the employment and personnel processes in an exceptionally diverse way: scheduling the working hours, knowledge management, recruitment, and the intercommunication of workers, supervisors and human resource management *(Figure 4)*. In addition, the system produces a range of important reports regarding versatile human resource management and business performance. All services work in support of the approval chain, with parts of the program targeted at different user groups as well as in different languages. The system is completed by a layout adhering to the organization's visual identity. Browser-based Contactor can also be connected to mobile applications, allowing workers to be reached anywhere and at any time. Mobile applications can be used for example, to propose and arrange shift work for part-timers or, where appropriate, invited from workers.
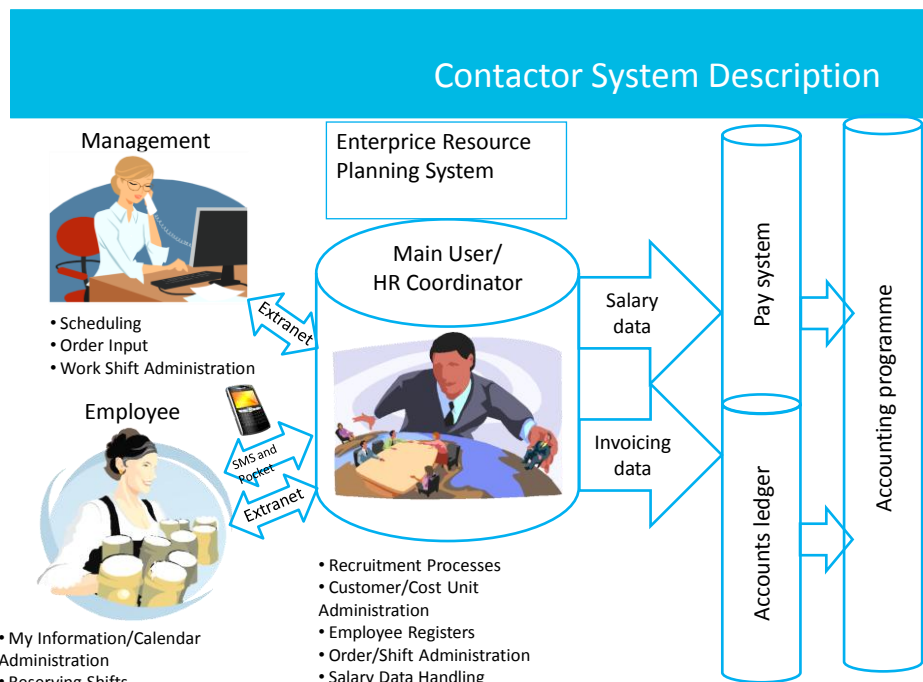
Contactor System Description

Management
- Scheduling
- Order Input
- Work Shift Administration

Employee
- My Information/Calendar Administration
- Reserving Shifts

Enterprice Resource Planning System

Main User/ HR Coordinator

Extranet

SMS and Rocket

Extranet

- Recruitment Processes
- Customer/Cost Unit Administration
- Employee Registers
- Order/Shift Administration
- Salary Data Handling

Salary data

Invoicing data

Pay system

Accounts ledger

Accounting programme

Figure 4. System description

E-recruitment supports the processing of work candidate data, the updating of the applicant database, and messaging to work applicants (*Figure 5*).The scheduling of shift work is combined with offer and confirmation processes. Informing about open shifts is quick and easy: the whole process of arranging and confirming employee shifts happens in real time for all parties, leading to significantly more efficient management and allocation of part-time shift workers (*Figure 6*). Versatile messaging functions also reduce e-mail and phone calls. The system automates payroll management in the most cost-effective manner (*Figure 7*). Real-time, comprehensive reports keep managers and human resource management continually updated.

- Recruitment
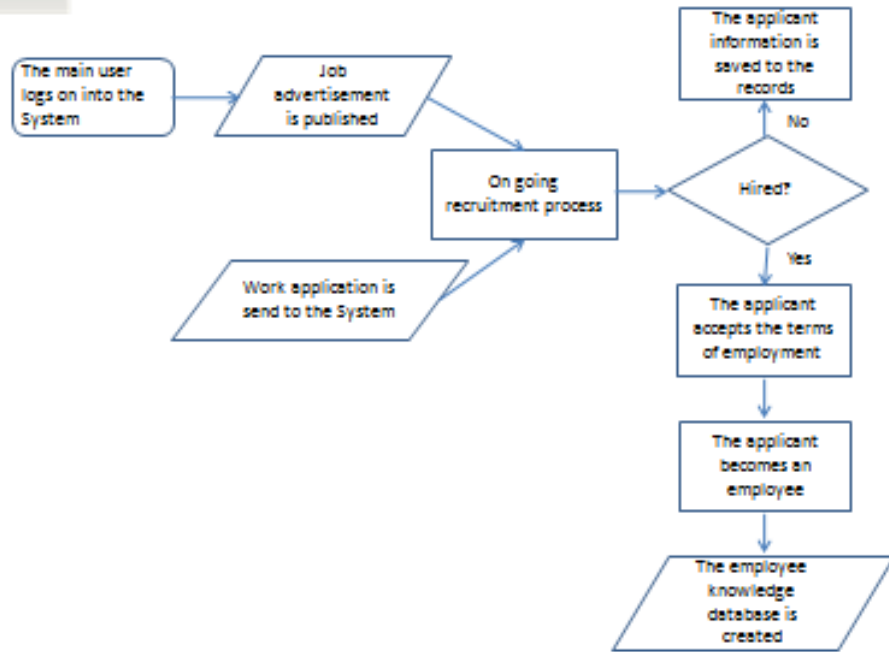- Knowledge database
- Message functions

The main user logs on into the System → Job advertisement is published → On going recruitment process ← Work application is send to the System

On going recruitment process → Hired?

Hired? → No → The applicant information is saved to the records

Hired? → Yes → The applicant accepts the terms of employment → The applicant becomes an employee → The employee knowledge database is created

Figure 5. Flowchart; Employment administration

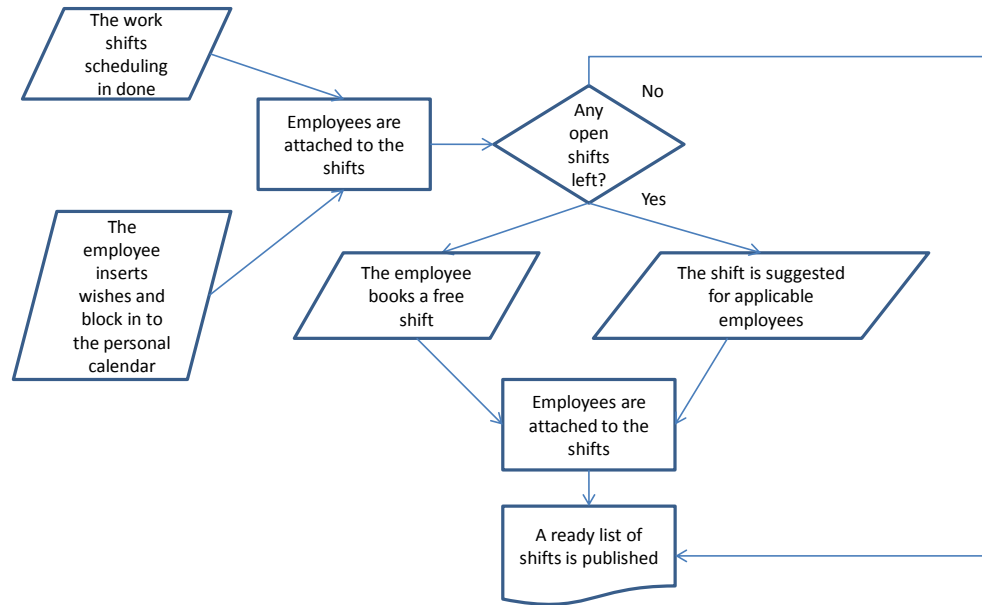- Calendar functions
- Scheduling
- Substitute administration

The work shifts scheduling in done

The employee inserts wishes and block in to the personal calendar

Employees are attached to the shifts

Any open shifts left?

No

Yes

The employee books a free shift

The shift is suggested for applicable employees

Employees are attached to the shifts

A ready list of shifts is published

Figure 6. Flowchart; Work shift administration

- Shift confirmation
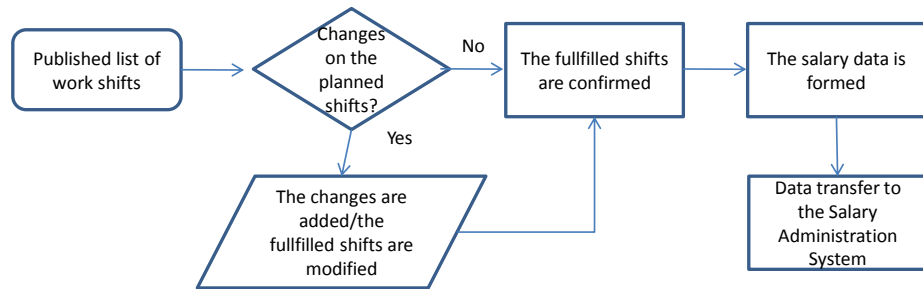- Calculation of salaries

Figure 7. Flowchart; Salary administration

4.2.   The functional solution of Contactor

4.2.1   End User Technical Requirements

The system requires an Internet connection, the speed of which should be a minimum of 1 MB. The newest versions of the Firefox and Internet Explorer browsers support the system the best. The software requires Java support in the browser.

4.2.2   System End Users

As detailed in the picture shown below, the end users of the system are the employee, the customer company/manager, and the main user/HR coordinator.

4.2.3   Functional Properties Offered by the System

The electronic recruitment supports handling applicant data, maintaining your own applicant database, and sending messages to applicants.

Informing of the available work shifts is quick and easy: the entire process from the opening of the work shift to the confirmation of the employee is displayed in real-time to all parties and this makes employee shift management and shift allocation much more efficient.

Versatile message functions in turn support internal communication and contact with employees.

The system automates the calculation of salaries and enables the organising of the calculation of salaries as cost effectively as possible.

4.3.   User-group-specific functions

4.3.1   Enterprise Resource Planning/Main User

The HR system is used for employee recruitment and the management of units, employees, and work shift orders. The system is used for contacting the units and employees. The Messenger function allows for effortless mass messaging even to large groups.

The enterprise resource planning/main user service menu is detailed below.

Job Advertisements

New job advertisements, which are published immediately on selected local websites, are created in the Job Advertisements section.

Applicants

The applications that have arrived are read and the applicants are managed in the Applicants section. The applicant moves from one tab to another according to changes in its status.

Employees

The applicant data moves from the Applicants section to the Employees section when the applicant is employed. The Employees section can be used to directly add new employees, find employees by filtering, and manage employee data. Employee data is divided into the following sections:

- Basic information – name, social security number, and bank account number
- Calendar – for example, adding a wish/block
- Task – the skill and experience level of the employee/occupational description for the calculation of civil service salary
- Salaries – contractual salaries and allowances
- Outcome – in the chosen time period, also by unit
- Cancellations – by shift
- Blacklist – specified by the employee/unit
- Files – all documentation related to the employment contract
- Pools – unit and area specific pools, to which the employee has been added
- Special skills – special know-how by industry branch
- Contacting – message archive, sending messages
- Contracts – employment contract data

Units

In the Units section, new units can be added, searches can be performed for units using filtering, unit data can be managed, and pools can be added to units and employees to the pools.

Unit data is divided into the following sections:

- Basic information – unit contact information and contact persons, login rights management
- Company information – business ID and invoicing information
- Task – company-specific occupational descriptions with salary information, allowances, and contractual salaries

- Orders – order list for the chosen time period
- Output – shift-specific output list for the chosen time period
- Blacklist – specified by the unit
- Files – unit contracts and other documentation related to the unit
- Pools – managing unit-specific pools
- Contacting – message archive, sending messages
- Organisation – adding to the organisation tree, information inheritance to offices

Scheduling

Shifts and resources are comprehensively managed in the Scheduling section. It seamlessly connects with the shift offering and confirmation processes. Shifts can be created both in the needs display and the employee display. Scheduling is made easier by outputs and profiles that can be used. Based on the scheduling plan, all the orders of the planning period can be made in a mass in the Contactor order handling.

Orders

New orders are created and the orders that are input through the unit Extranet are managed in the Orders section. In this section, employees are connected to orders and the filled orders are modified and confirmed.

Shifts

Accomplished shifts are modified and approved in the Shifts section. In this section, a shift accomplished by an employee can also be directly added. Shift-specifically, it can be seen as to whether the employee or unit have accepted the shift. Transferable shifts can be viewed using filtering by choosing the desired time period. If necessary, the shift chosen for transfer can be returned to the transferable shifts page for modification.

The salary and invoicing information of the shifts chosen for transfer is automatically transferred to the pay system according to defined schedule.

Reports

In the Reports section, general reports and reports customised for each customer can be printed both on screen and into a chosen file format. The reports are grouped into invoicing and salary based reports, HR, budget, and evaluation reports and statistics.

Settings

In the Settings section, the desired areas are selected within the limits of the rights of use. Passwords are also administered in this section.

Maintenance

Civil service salaries, pools, user information, and web pages are administered in the Maintenance section. In addition, news for the chosen web pages is created in this section.

4.3.2 Unit

In the unit Extranet, shift orders are made, shifts completed are added, accomplished shifts are viewed, reports are printed, and own pools are administered. Using the unit Extranet, contact persons can be added or removed and the main user can be contacted.

The unit service menu is detailed below.

Orders

In the Orders section, new orders, which can be both single shifts and long fixed-term orders, are input, the made orders are modified and the order statuses are viewed.

The unit can choose as to whether it wants to find the employees for its orders using pools or whether it wants the main user/HR coordinator to find the employees for its orders. In this section, the orders on hand as well as which employees are added to which shifts can all be viewed. If the employee accepts the offered shift using the Pocket -software, it is confirmed automatically.

Shifts

The shifts carried out by the employee are directly added and accomplished shifts are modified and approved in the Shifts section.

Reports

In the Reports section, different reports for administration and evaluation purposes can be printed both on screen and into a chosen file format.

My Information

Contact person information is administered in the My Information section.

Employees

In the Employees section, employees belonging to own pools can be viewed and employees can be added to pools.

4.3.3 Employee

Each employee administers the employee's own information, shifts, and calendar in the employee Extranet. The future shifts of the employee and the employee's shifts to be reserved can be viewed. There, the shifts completed can be directly input by the employee into the system for manager approval. The employee can volunteer for suitable shifts and accept the suggested shift using the Extranet.

The employee can communicate with the main user/HR coordinator using the Extranet. The received and sent messages are archived in the Extranet.

The employee service menu is detailed below.

Shifts

In the Shifts section, the employee can view his/her future shifts. The employee can view and accept the suggested shifts, reserve the shifts to be reserved, and volunteer for suitable shifts. In the Shifts section, the employee can also directly add shifts completed to the system for manager approval and approve the shifts completed.

Calendar

In the Calendar section, the employee can administer the calendar by adding either temporary or long-term wishes for those days when the employee wants to work, and blocks for those days when the employee is not able to come to work.

My Information

The employee administers his/her personal data in the My Information section. The employee can change his/her contact information and the preferred method of contact. The HR coordinator updates the other personal data when the employee so wishes.

Terms of Employment

In the Terms of Employment section, the terms of employment and their approval date can be viewed. After the employee has accepted the agreement when logging in for the first time, other sections of the Extranet are visible to the employee and he/she can administer his/her shifts and add Calendar.

Salary

In the Salary section, the wages for occupations of the employee are listed. The salary is based on skill and experience level and the collective labour agreement.

Messages

Sent and received messages are archived in the Messages section. In addition, the received messages can be answered there. Ready-to-use message templates expedite the communication between the HR coordinator, units, and employees. In the Applicants, Employees, Units, and Orders sections of the enterprise resource planning system, there is a mass messaging function for quicker communication.

4.4. Language choices / Internationality

In addition to the Finnish and English in use in Contactor, it is possible to publish the software in the languages chosen by the customer. The dynamic platform enables the use of any language.

5. Commoditization process of Contactor

5.1. General

The aim of commoditization is to plan and determine services into duplicative products. Documentation has a significant role in this and commoditization, when it is properly done, embodies several written documents by which the contents, structure, production and provisioning of the service is perceived. Some of these documents are for the company's internal use only and some are meant to concretize the service to the customer and make it easier to buy. The documents may or may not carry a legal value as well.

In the commoditization project of Contactor Human Resource Managing System, the reasoning behind it was that when every aspect of the commoditization process is well thought of and carried out, the whole process of providing the service becomes simplified and thus quick and easy to put into practice. Also when the internal commoditization is properly done, further research and development is easier to accomplish and the company is also less vulnerable in terms of fluctuation such as changes in for example personnel. In whole commoditization of Contactor helps the company to be more effective and profitable and to take on a larger customer base.

5.2. Marketing and Sales

5.2.1 Marketing and sales channels

The nature of the service product and the industry has to be taken into consideration when determining the marketing and sales of Contactor. The effectiveness and usability of different marketing and sales channels is thus

determined. The most effective way to sell is of course face-to-face selling, but as this is expensive and time consuming, it is worthwhile to use marketing, in other words multiplied sales pitches, in a wider scale and focus the face-to-face sales on the most potential customers.

In the case of Contactor, the best way to market the service is via Search engines, such as Google AdWords via Internet ads and through sales fairs.

Search engines are relatively new marketing tool, but it has been found to be very effective, especially in marketing of IT products and tools. Google –marketing is the most common search engine channel. The idea is that the company pays for the company's internet pages to appear on the top of the list of results when using a specific search words. Google Adwords –tool also enables focused advertising to a specific geographical area and, through the specification of the search words, also to a specific targeted customer group.

The aim is to also publish an ad in the popular internet pages, such as Google, as it will complement the Search engine –marketing.

An important marketing and sales channel is also attendance in relevant business fairs and other events aimed for the labour-intensive industries that are the target group of Contactor sales.

5.2.2 Marketing and sales materials

The intent is to use retailers as well as the company's own personnel, so it is vital to have proper marketing and sales material.

There are two kinds of needs concerning the marketing material, a need for a visual presentation that delivers the main ideology in a time effectively and when needed to a big audience, in an exhilarating way that speaks out. This is important in order to get the customer excited about the idea of Contactor when the service product is first introduced. For this purpose an

animation about Contactor that is additionally used in our internet pages (www.haahtelahr.fi) was created. In short, the animation presents the most common challenges in the labour-intensive industries and the solutions that Contactor offers to them.

The other marketing and sales material that was found to be necessary was a more specified presentation that can be both send to a potential customers and used as a supportive material in the sales situations. As a part of this thesis work, two marketing and sales documents were produced; a short general brochure of Contactor in pdf-form (See appendix 2) that can be send to potential customers and a more comprehensive power point presentation (See appendix 3) that can be used in a sales situations and also given to potential customers.

5.3. Provisioning

5.3.1 General

Provisioning in its heart simply refers to the act of supplying a service to an end user. As Contactor Human Resource System is delivered to the customers via Internet, provisioning in the case of Contactor essentially means taking care of things like access control, authentication and authorization by giving customers user rights.

In Contactor's case this means the process of determining whether someone is who they declare to be and after this giving them authorization into the desired part(s) of the System. In private and public computer networks, including the Internet, authentication is commonly done through the use of logon passwords. This is also the case when using Contactor and the authentication is checked by using the person's name and social security number and after this a password is created for the user. Knowledge of the password is assumed to guarantee that the user is authentic. Logically, authentication precedes authorization and after this the preliminary setting

up of permissions by a system administrator and the actual checking of the permission values that have been set up when a user is getting access are determined as the customer has instructed. The system administrator defines for the system which users are allowed access to the system and what privileges of use the specific user has.

Naturally provisioning in Contactor's case also includes taking care of the creation and modification of a defined set of versions or characteristics, service implementation, application integrations and customer-specific customisation. The provisioning of Contactor also includes general maintenance of the system as well as general research and development in the form of frequent updates that are automatic to all customers and customer specific development that responds to the individual customers needs and is done in co-operation with the customer and by a separate agreement.

5.3.2 Service implementation – Customer-specific specifications

When implementing the system, the following is specified for each customer:

- Access Levels
- Organisational Structure and Area Division
- Industry Branches and Occupational Descriptions
- Special Skills
- Applicable Collective Agreements (Calculation Rules, Civil Service Salaries)
- Wage Types
- Electronic Employment Contract
- Multiple Languages
- Possible Glossary Changes
- Message Templates for Automatic Messages
- Website Linking and Personification Material

- Transfer File Format and Interfaces to the Other Systems of the Customer
- Security Policy

5.3.3 Application integrations

Contactor can be integrated with any system. Similarly, any system can be integrated with Contactor. A file format is chosen and the transfer method is defined specifically for each customer.

At the moment, for example the following are in use:

- Webservices for transferring XML files (compatible with a SOAP envelope)
- CSV export files
- ASCII export files.

File transfer can be done by directly using Webservice, SFTP transfers, by "manually" saving/retrieving the export file, or by using some other desired method.

5.3.4 Maintenance

The normal or default maintenance level is specified in the table shown below.

Service time is the time period during which the repairs on the service are carried out. The time that constitutes the service return time is only calculated during the service time. The customer is separately invoiced for tasks carried out outside the service time. If the error is not repaired during the service time, repairs are continued the next day during the service time. The reaction time is the time period from the customer's error report or the supplier's network control's error discovery to the moment the error is logged. The service return time is the time period during which the service should be functioning at the latest. The response time is the time period from error report logging to starting repairs. The times mentioned are in Finnish time (EET).

Technical maintenance only consists of maintaining the functionality of the service. Other services are agreed separately.

Maintenance outages are scheduled outside the service time when possible. The customer is always informed of the development of the service and any maintenance outages. Updates that are urgent and that take less than 10 minutes can be performed at any time and without separate notification. When possible, the planned maintenance outages are scheduled at times agreed with the customer. The main users of the customer's service are informed of the planned maintenance outage by email.

5.3.5   Developing the system and customer-specific customisation

The system is constantly being developed, and these developments and improvements are available to all customers. Customer-specific customisations are separately agreed in contract negotiations.

5.4.   Training and Support

5.4.1   Training

It was decided that only the customer's main users need face-to-face training and the main users can then train the other users within the customer's organisation. The training of the main users was planned so that it would not take too many resources from the customer's organisation and that it would be less time-consuming and effortless than IT projects generally often are. For this reason an electronic training material was also produced to support the training and reduce the need for several training sessions and further training. The electric training is an animation where the mouse pointer shows which buttons to press to get to the desired result with a simultaneous narrative recording explaining it in the background (see print screen of electronic training below). The electronic training material is published in the Contactor System and the users can access it

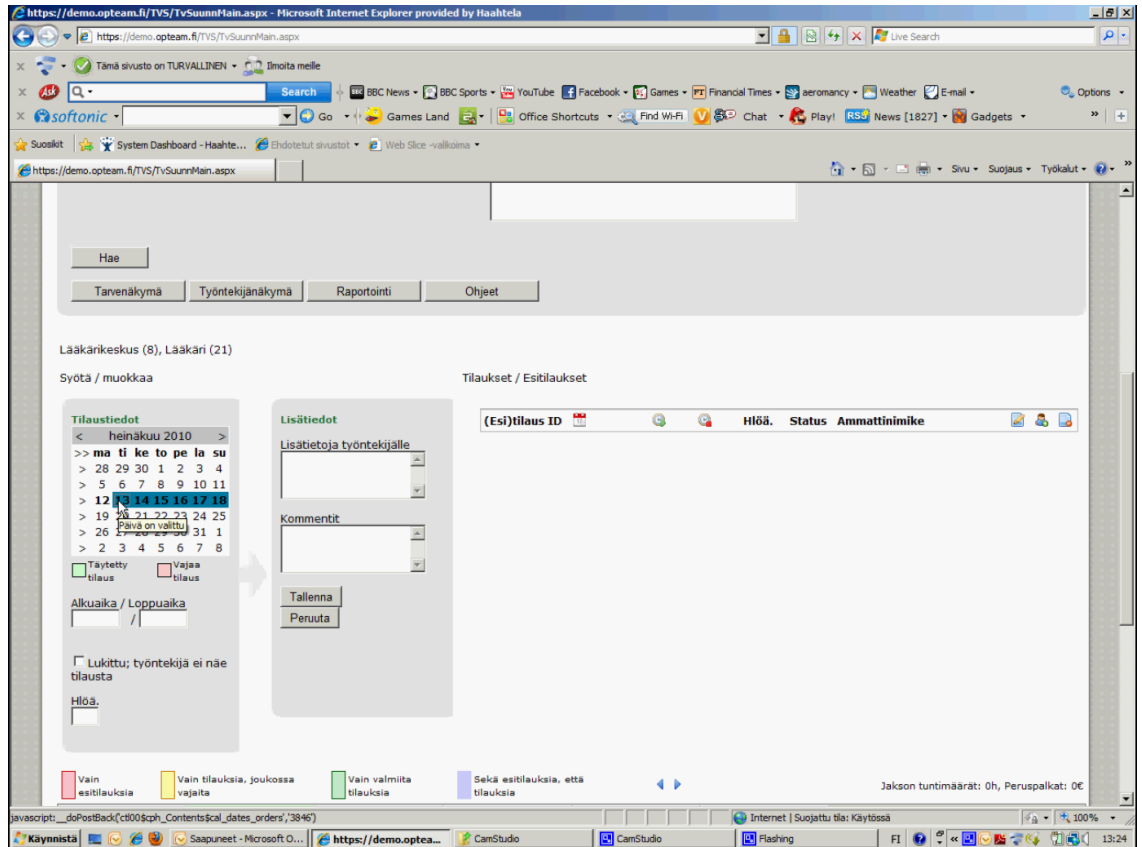whenever they wish after they receive their passwords and can login to the System.

Figure 8. Electronic training material

5.4.2 Support Services

A Contactor help desk is created to give the customers the best level of service possible without any delays. It helps in matters concerning the use of the system. The Customer is provided with a phone number and email address for contacting the help desk.

As Contactor is a very large system and has a lot of characteristics that are used by different user groups it was obvious that different kind of user groups needed their own separate user guides that are directed straight for their needs. There are three main user groups, The main users that operate the Enterprise Resource Planning, the managers that operate their own unit

and the employees, so it was rational to make separate user manuals for each individual group. These user manuals (see appendices 4, 5 and 6) as well as the electronic training materials are available straight from the Contactor System and can also be delivered separately to the client.

5.5. Pricing

There are quite a number of different pricing methods and models, but the most important thing concerning the pricing is that the price is easily communicated to the potential customers. Therefore a fixed price or in other way very clear and simply way of pricing is always recommendable. The price can also be made of price modules.

A simple cost based pricing is not always the best option and a better way might be to base the price on the end value produced to the customer. This is especially very reasonable way to price a Human Resource Management System like Contactor. For instance the amount of hours saved to manage the personnel of a company via automatic System compared on managing it without one, gives a realistic estimation of the value gained and it can be very easily transformed into money saved. Also firstly because the value gained is of course with respect to the number of personnel in the company, but also because the number of personnel effects on the maintenance costs of the specific customers database, it is best to connect the price of Contactor to the number of users or work shifts outcome.

5.6. Documents for external use

Software and IT documents are very unique. In the software and IT world, as no tangible items are not provided the contract and other legal documents serve an additional purpose as they further explain what the customer will be receiving. These documents play a much more important role, perhaps more than in any other industry, as they must also communicate, explain and describe what the supplier will be providing and what the customer should expect to get. (Aber, 2010).

5.6.1 Service Description

Service Description (see appendix 7) is the single most important document when talking about intangible IT Service products such as Contactor. Because there is no physical object that is passed to the customer it is important to determine very carefully what is actually sold to the customer, and service description does just that. Basically it is a set of documents that describe the interface, the accessibility and the capability of the service. The descriptions must be semantically rich and they must have structure. It provides a description of the functionality of the service, in other words what it does. It also provides a description of the non-functional properties of the service which is anything that exhibits a constraint over the functionality. An example of a non-functional property of a service is its temporal availability which determines when the service can be accessed. In the Contactor service description, also the service levels are determined in addition to the accessibility levels as well as the compensation levels affiliated with them.

5.6.2 Service Contract

Contactor Service Contract (see appendix 8) determines what is agreed on in terms of the service product and maintenance, the scope and length of the contract and cost of the service. It also specifies the parties of the contract and other legal aspects of the business transaction. The service contract is a formal, agreed, binding contract between the service customer and the service provider. Because the service description of contactor defines the actual product and includes the service level agreement within it, these aspects where not put in to the service contract. However, the Contactor service contract includes all other issues related to the juridical relations between the parties and concerning the business transaction and for instance the liabilities of both parties.

5.6.3 Terms of Delivery

The Contactor terms of delivery (see appendix 9) are applied to using the Contactor services that are provided to the customer as a service through an information network by Haahtela HR Oy. The terms of delivery are an essential part of the valid Service contract between the service provider and the customer, and the customer agrees to comply with these terms of delivery. The terms of delivery are a complementary document to the service contract and the idea is that if something is not mentioned in the actual contract then the terms of delivery define how the issue is interpret and the parties must act accordingly. Unlike the service contract that is always separately done by the parties of the contract for each individual business transaction, the terms of delivery are a set document that is not changed customer-specifically

5.6.4   User Rights Contract

All software is copyright protected, except material in the public domain, still the users' rights and limitations can be determined further by using User Rights Contract that will give the company more protection against any violations to its Intellectual Property Rights.

In the case of Contactor it was still felt important to create a separate User Rights Contract (see appendix 10) that defines the rights, obligations and limitations of the end user as well as determines the general terms of use and thus protects the company's property rights related to Contactor Human Resource Management System. The Contract opens up when the user tries to login for the first time and in order to continue into using the System, the user has to read and accept the terms of use.

6. Discussion

There has been a lot of discussion about the risks of commoditization in the IT field. Some even claim that it kills the business by cutting the profits down and the most extreme opinions are that it is a step towards communism. "-- SaaS has

commoditized software for the masses. Now, we are hearing noises from people in the traditional software industry, and also from people who make their living writing about them, that the margins in SaaS -model are very low and it will kill the software industry itself." (Subramanian, 2009).

There are of course some points behind these arguments. It is true that in case of very common It products or services there isn't so many competitive advantages anymore if the product or service is highly commoditized and the only thing that companies can compete with is the price. Then of course the profits get smaller and smaller. However, the margins in the SaaS -model may not be as big as in earlier but the market is much wider than in the traditional IT. The market is open to much wider range of companies, and not limited by the size or location of the business. "When you have such a huge untapped marketplace, you can still make money and live a capitalistic lifestyle even with slim margins. SaaS is the natural evolution in the marketplace when there is a healthy competition on a level playing field." (Subramanian, 2009)

Since commoditization is a focus on product and differentiation and value are a focus on user experience, the core application from a product should be transformed into a great user experience. The focus should be on what customers actually want or need to perform in doing business (high value scenarios) and the application should be designed around these. The most important thing whit SaaS –model is that it should be designed with scalability in mind from the start and the techniques of interaction design, information architecture, accessibility, user interface design and user-centred design that are typically applied to the design of the core application should be used and extended beyond the product to marketing, sales, provisioning, training, support, billing, and so on. The technical subtleties and great visual design can add value and be part of the formula but only when they actually assist a user in accomplishing their high value tasks.

In the case of Contactor, service commoditization is a necessity up to a point in order to be able to provide the service to a larger customer base. In this case

commoditization of Contactor also doesn't necessarily cut down the profits much, as the actual HR System in question is unique in the Finnish customer markets. Nevertheless, it also needs to maintain the status which means that continuous research and development is the core focus and has to maintain ongoing also in the future. It also means that the service itself has to be differentiated.

7. Conclusions and Suggestions for further research

As a result of the commoditization process of Contactor a well functioning service product concept was formed to be introduced to the customer markets. All the necessary materials and documentations concerning Contactor were also produced, including materials for marketing, sales, training, support and legal purposes. The documents produced are presented in this thesis as appendices 2 to 10.

All in all the whole process of commoditization of Contactor, consisting of finalizing the idea into a successful product, organizing the marketing, sales, provisioning and training, developing the pricing model and legal documents was completed in this thesis.

Although theoretically the process was completed productively, whether the actual process as a whole is successful or not will eventually be determined by how well the customers find the application and how well the customers get a feel for it. In other words the success of the product and the commoditization process is determined by the sales of the application and through that, the financial revenue of the company. Nevertheless the commoditization process has already had a significant impact on the company's internal operations and has made it possible for the company to proceed on marketing Contactor Human Resource Management System to the wide audience. So it is safe to say that at least the internal commoditization process was successful and the documentation produced as a part it have been found beneficial for the company's internal management.

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Appencies:

DEGREE THESIS APPLICATION OF CONFIDENTIALITY	
Arcada	
Degree Programme:	International Business
Identification number:	7312
Author:	Tuuli Haahtela
Title:	IT Service Commoditization; Case Contactor
Supervisor:	Sveinn Eldon
Commissioned by:	Haahtela HR Oy
Application of confidentiality of the Thesis Appendices: The thesis work is about commoditization of an IT program called Contactor Human Resource Management System. As a significant part of the thesis all the documentation concerning Contactor was produced and is presented as appendices in the thesis. Because the thesis appendices consist of confidential information that could do major harm for the Company that owns the IPR rights of Contactor the publication of those appendices in question should be prevented.	
The Appendices that need not to be published:	4,5,6,7,8,9,10
Supported by:	*[signature]* Sveinn Eldon Supervisor
Date of acceptance:	16. 11. 2010
Accepted by:	*[signature]* Eija Källström Eija Källström Vice Head of Department

Haahtela

CONTACTOR

Contactor System Description
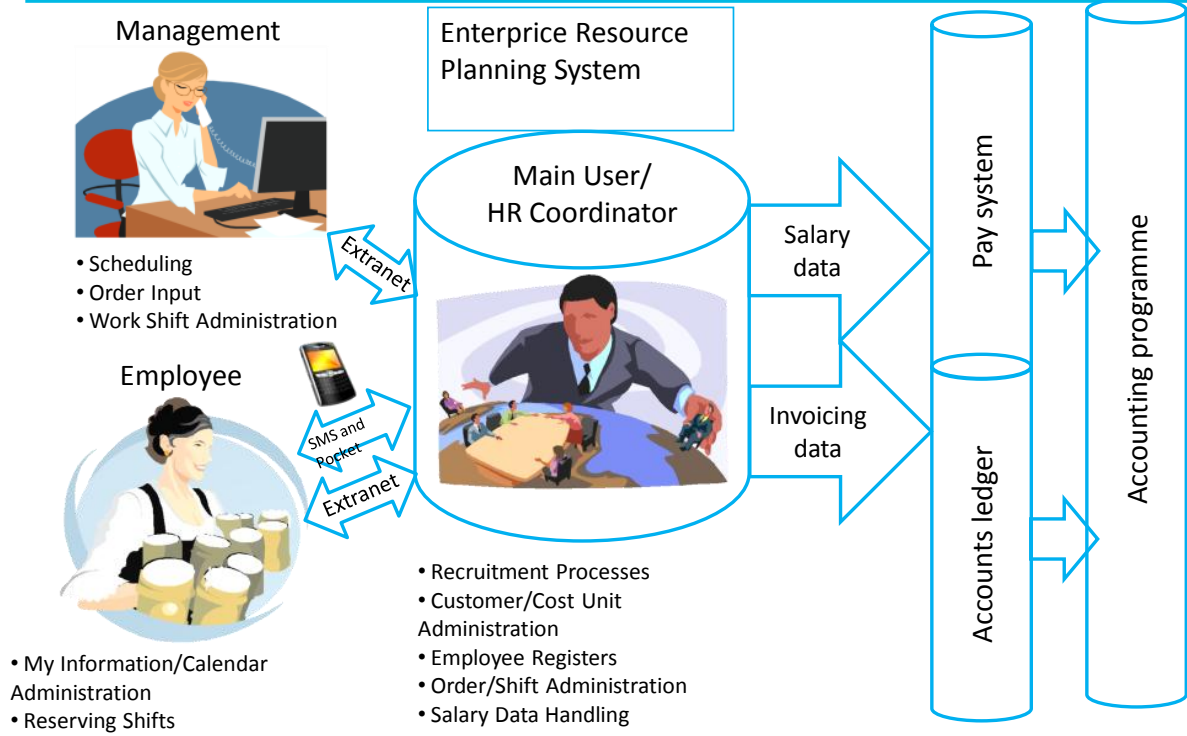
Management

- Scheduling
- Order Input
- Work Shift Administration

Employee

- My Information/Calendar Administration
- Reserving Shifts

Enterprice Resource Planning System

Main User/ HR Coordinator

Extranet

SMS and Pocket

Extranet

- Recruitment Processes
- Customer/Cost Unit Administration
- Employee Registers
- Order/Shift Administration
- Salary Data Handling

Salary data

Invoicing data

Pay system

Accounts ledger

Accounting programme

The network-based Contactor is a comprehensive HR system. This real-time system enables human resources processes that are easily managed, transparent, and can be reliably predicted. As the result of extensive development and testing, Contactor is a tool specifically designed for labour-intensive industries.

Contactor consists of three main parts; Employment administration, Work shift administration and Salary administration. There is also Support Functions, including monitoring, reporting and communications that support the process as a whole.

Contactor supports employment and staff processes in an exceptionally versatile way: scheduling shifts, knowledge management, recruitment, and the communication between employees, management, and human resources management. Additionally, the system produces versatile reports important for human resources management and the financial results of the business. All services are supported by approval chains, parts of the programme aimed at different user groups, and multiple languages. The final touch to the system is the layout, which matches the organisation's own visual identity.

The web-browser-based Contactor can be combined with the Pocket mobile application, which enables the user to reach employees anytime and anywhere.

Web-based Contactor is logical and easy to use. The real-time system allows for easily manageable, transparent and reliable ways to anticipate human resource management processes. Contactor is a tool for labour-intensive sectors that has emerged from an extensive development and testing effort. Contactor supports the employment and personnel processes in an exceptionally diverse way: scheduling the working hours, knowledge management, recruitment, and the intercommunication of workers, supervisors and human resource management. In addition, the system produces a range of important reports regarding versatile human resource

management and business performance. All services work in support of the approval chain, with parts of the program targeted at different user groups as well as in different languages. The system is completed by a layout adhering to the organization's visual identity. Browser-based Contactor can also be connected to mobile applications, allowing workers to be reached anywhere and at any time. Mobile applications can be used for example, to propose and arrange shift work for part-timers or, where appropriate, invited from workers.

E-recruitment supports the processing of work candidate data, the updating of the applicant database, and messaging to work applicants (*Figure 3*).The scheduling of shift work is combined with offer and confirmation processes. Informing about open shifts is quick and easy: the whole process of arranging and confirming employee shifts happens in real time for all parties, leading to significantly more efficient management and allocation of part-time shift workers. Versatile messaging functions also reduce e-mail and phone calls. The system automates payroll management in the most cost-effective manner. Real-time, comprehensive reports keep managers and human resource management continually updated.

Contactor

Employment administration

Work shift administration

Salary administration

Support functions

CONTACTOR

CONTACTOR

Contactor

The most advanced HR data system in the market

Contactor

Employment administration

Work shift administration

Salary administration

Support functions

CONTACTOR

EMPLOYMENT ADMINISTRATION

- Recruitment
- Knowledge database
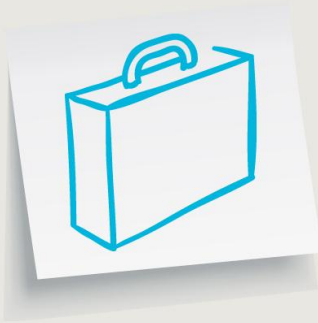- Message functions

CONTACTOR

Recruitment

- Creating and publishing a job advertisement in the desired application channels
- Electronic recruitment process and employment contract "from applicant to employment"
- Automatic employee knowledge analysis during the application stage
- Archiving and utilisation of the applicant database in the future
- The possibility to create automatic responses for the different stages of the application process
- Quickly contacting many applicant groups at the same time

CONTACTOR

Knowledge database

- Updating, monitoring, and reporting the employee knowledge profile
- Defining the work tasks needed in the organisation and their required standard

CONTACTOR

Message functions

- Easy-to-use message functions for both single messages and mass messaging between employees and management
- Automatic documentation and archiving of the messages

CONTACTOR

WORK SHIFT ADMINISTRATION

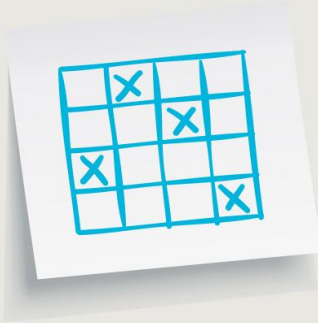- Calendar functions
- Scheduling
- Substitute administration
- Shift confirmation

CONTACTOR

Calendar functions

- Contactor yhdistää organisaation ja työntekijöiden kalenterit
- Työntekijöillä on mahdollisuus viestiä työvuorotoiveita
- Esimiehet pysyvät ajan tasalla työntekijöiden käytettävyydestä 24/7

CONTACTOR

Scheduling

- Automatic determination of the need for staff, based on business history
- On the shift list, the system displays the suitable shifts for each employee to the management
- When adding employees to the shifts, it is possible to consider the employee's wishes for free time
- The system budgets the salary costs involved in each period

CONTACTOR

Substitute administration

- Optimal division of work and staff by offices
- The need for substitutes and the staff knowledge profiles can be made to meet automatically
- Easy access to substitutes using electronic message functions

CONTACTOR

Shift confirmation

- The whole process from opening a shift to confirming an employee is displayed in real-time to all parties.
- The employee and management confirm the accomplished shifts on their Extranet page.
- When the management and HR have confirmed the accomplished work hours, the data automatically transfers to salary payment.
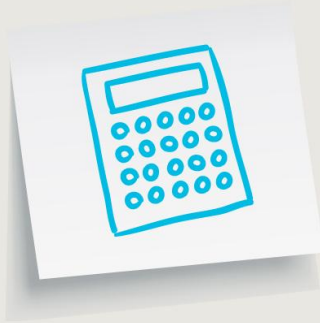
CONTACTOR

SALARY ADMINISTRATION

- Calculation of salaries

CONTACTOR

Calculation of salaries

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- The system automatically produces salary data according to collective agreements.
- The system verifies the accuracy of the salary data.
- The digital mass transfer of the salary data to the company payroll system.
- It is possible to electronically transfer the pay slips directly to the personal Extranet page of the employee
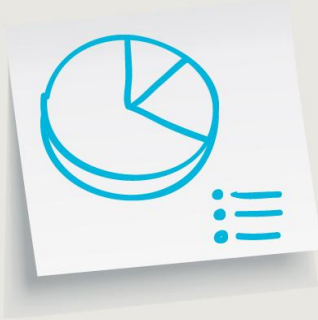
CONTACTOR

SUPPORT FUNCTIONS

- Monitoring
- Reporting
- Communication

CONTACTOR

Monitoring

- Employment documentation and history as well as message history are digitally archived in the system.
- Reporting models that support business
- Real-time reports constantly keep the management and HR up to date.
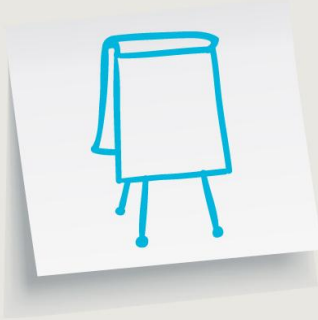
CONTACTOR

Reporting

- HR
- Invoicing
- Salary
- Monitoring
- Budgeting
- Statistics

CONTACTOR

Communication

- Targeted mass communication significantly reduces the communication time.
- Information can also be disseminated in the news section of the system and on the unit and employee Extranet page.

CONTACTOR