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DEPLOYING SALESFORCE SERVICE CLOUD

AS A SCRUM PROJECT

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Opinnäytetyön tarkoituksena oli dokumentoida Service Cloud -ohjelman MVP-version käyttöönotto sekä luoda toimintasuunnitelma, jota muut yritykset ja eri Visman liiketoimintayksiköt voisivat hyödyntää Service Cloudin käyttöönotto-prosessissa.

Teoriaosuus työstä käsittelee ohjelmistotuotannon prosesseja, joita hyödynnettiin projektin toteuttamisessa sekä määrittelyiden suunnittelussa. Teoriaosuudessa käsitellään myös ohjelmistoja ja teknologioita, joita käytettiin projektin johtamisen apuna.

Service Cloud, jonka käyttöönottoa tutkimuksessa käsitellään, on osa Salesforcea. Sovelluksessa voidaan käsitellä liiketoiminnan eri tukipyyntöjä ja lisäksi sovellus tarjoaa asiakkaille graafisen käyttöliittymän tukipyyntöjen kirjaamista varten. Työssä toteutettiin myös integraatioita toisiin yrityksen hyödyntämiin ohjelmistoihin, kuten Amazon Connectiin sekä Jiraan.

Käyttöönottoprosessin jälkeen voidaan todeta, että projekti on onnistunut ja ohjelmisto saatiin otettua käyttöön ongelmitta ja sitä hyödynnetään liiketoiminta-alueellamme päivittäin. Näin ollen opinnäytetyössä havaittuja ja dokumentoituja asioita voidaan hyödyntää jatkossa muissa vastaavissa Service Cloud -käyttöönottoprosessissa.

Avainsanat   Service Cloud, Salesforce, MVP, käyttöönotto.

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ABSTRACT

The objective of this thesis was to document the MVP-version deployment of Service Cloud at a business unit in Visma, documenting each phase of the project and creating a blueprint that other companies, and business units at Visma could follow.

The theory segment of the thesis deals with the software development processes used for carrying out the project as well as defining the project plan and specifications. The theory segment also includes which technologies and tools were used as project management tools.

The work executed during this thesis was the deployment of Service Cloud, which is a part of Salesforce. The software is responsible for handling all support cases received in the business unit, as well as providing a portal for customers which features self-service capabilities and the possibility to submit cases. Integrations to other software like Amazon Connect and Jira were also implemented.

On the base of the deployment phase of the project a successful MVP-version of Service Cloud was successfully implemented, and it is in continuous use in the business unit. The project was successfully documented in the form of this thesis which will work as a blueprint for other Service Cloud-deployments within the company.

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LIST OF TERMS AND ABBREVIATIONS

CRM	Customer Relationship Management
Case	Salesforce name for a ticket or support request.
Scrum	Framework that uses an Agile mindset for developing or delivering complex products.
Sprint	A repeatable time window in which a specific product or feature is created.
Agile	Development that can quickly adapt to changing circumstances. Processes are light and adaptive.

Visma Community	Customer community forum sharing ideas and open discussion.
App store	Application store for iOS devices.
Play store	Application store for Android devices.
GDPR	General data protection regulation.
On-premises	Software installed and run on customer, organization or user premises .
SaaS	Software as a service. Software produced as a service, opposite of on-premises.
MVP	Minimum viable product. Often used to describe what the minimum requirements are for a product to be useful.
KPI	Key performance indicator
Lead	Leads for potential customers that are forwarded to the sales division
ITIL	IT Infrastructure Library

1 INTRODUCTION

The objective of this thesis was to deploy the MVP-version of Service Cloud for a business unit in Visma. The project was executed in an Agile Scrum setting, and the main goal was to replace an old ticketing software with something that could be integrated with other internal software. Service Cloud is a part of Salesforce which is also a comprehensive CRM, meaning that the software is used by different teams within the company.

A Minimal viable product-version (MVP) of a project describes the features that are critical for the product or project to be viable. For example, a critical feature, such as the software having a working log-in is critical for it to be viable. MVP-implementations are often used when on a tight schedule, as in this project.

The project consisted of five two-week themed sprints that used an external consulting partner to execute. Each sprint included a starting meeting where goals and objectives were defined, a mid-sprint demo review and a final demo review where the end results were showcased. The project specifications came through user stories, which made it possible to keep the project setting Agile.

One of the major objectives of the project was to create integrations to already existing software. These integrations included Jira and Amazon Connect. By introducing the possibility to escalate cases from Salesforce to Jira, the gap between product development and the business unit was narrowed.

Even though an external consultant was used for the sprint-based development, there was a lot of technical work that was done in-house. Some of the main tasks included creating the correct queues for incoming tickets, defining the priority based on impact and urgency, integrating Amazon Connect, creating the integration for Jira and deciding on the escalation rules and creating the integration for our own customer database and licensing management software.

As the project manager I was responsible for defining the routing processes between different teams, designing the escalation process, specifying different user stories for the software and updating customer information. I also had the overall responsibility that all critical features were implemented before the deadline. As the project manager I attended all meetings and updated the project plan and specifications as the project proceeded. I was also in charge of the internal instructions and organizing tests using a testing team.

Even though Salesforce and Service Cloud is widely used within Visma, there is no blueprint made for how to deploy the software. It is common that new software solutions within the business unit are deployed by the internal ICT-group. However, in this case the project was executed within the business unit using an outside consulting partner. Documenting the deployment process will provide other business units the possibility to follow the best practices figured out during this project in the future.

2 INTRODUCTION OF VISMA

Visma was founded in 1996 in Oslo, Norway through the merger of MultiSoft, SpecTec and Dovre information Systems /1/. "Visma is a leading provider of core business software for a more efficient and resilient society". Visma has over 1 million customers across the Nordics, Benelux, Central and Eastern Europe and Latin America. /2/

The vision of Visma is to shape the future of society through technology and simplifying and automating complex processes. With time-saving software people are enabled to focus on activities that deliver more value to their businesses and society. By the power of automation and simplification, an environment is created that enables people to be more effective at work and spend more time on things they care about. /2/

3   SOFTWARE DEVELOPMENT PROCESS

The project was executed as a Scrum-modelled project, which consisted of five sprints. As seen in Figure 1, each sprint starts with a planning session where goals for the sprint are defined. After the planning session, Scrum employs a series of daily Scrum meetings at the beginning of each sprint day. Daily Scrum meetings are used as a short meeting to talk about what is planned to be executed within that day, and if there is anything that needs special attention. In the middle of each sprint a mid-demo review is held where results are showcased, and to find out possible changes on the specification. Each sprint ends with a finished demo review where results of the sprint are shown, and the processes are tested against the user stories. After the demo review, a release planning meeting and retrospective meeting is held, where the release of the new features is planned, and the successfulness of the sprint judged.

Figure 1. Picture of a typical Scrum-process /3/.

Scrum is a framework that helps teams work better together. Scrum is regarded as an Agile project management framework which describes a set of meetings, tools and roles that can be implemented to help teams to structure and manage

their work. An Agile framework works well in a setting where the project continuously evolves, because it accepts changes even after the project plan has been completed. /3/

One of the key benefits of Scrum is the fact that user stories can be used in describing complex processes and features. User stories are used as specifications for projects where the result can be defined as a simple sentence, for example "As a customer super user I need to be able to send emails to support, so that I can get the help required". By using the method of user stories to define a project it enables the possibility to not have to describe the complex feature, but instead simply the way it should work when successfully implemented. Scrum also assumes that there is continuous learning during a project and the framework makes it possible to add specifications or refine features, in the form of demo reviews, daily Scrum meetings and retrospectives /3/. Agile and Scrum are often incorrectly considered to be the same. The difference between Agile and Scrum is that Agile is a mindset of eliminating complex processes and can be used in many aspects. Scrum is a project framework which uses Agile as a guiding principle.

The project was designed to create processes which follow the ITIL4-guidelines. ITIL, which stands for Information Technology Infrastructure Library, is a framework that is aimed at standardizing the selection, planning, delivery, maintenance and overall lifecycle of IT-services within a company /17/. The ITIL4-framework was utilized in defining the incident management, case routing and prioritization in this project.

ITIL v1 was created in the 1980s to help data centers through the evolution to adopt more geographically different architectures. In 2017 ITIL v4 was released. Each version of ITIL has provided updated documentation and certifications to assist admins in the current and fast evolving infrastructure landscape and types of services provided. The ITIL-framework is not a strict checklist to implement best practices. ITIL provides a vast number of best practices that can be adopted de-

pending on the company and requirements. ITIL v4 includes best practices regarding business analysis, service design and continuity, service desk, monitoring and incident management, change management and IT asset management. /17/

4   PROJECT BACKGROUND AND OBJECTIVES

4.1 Background

The business unit was using a separate program for handling tickets with little to no possibilities for integrations. After the decision was made to move to Salesforce, it was decided to implement Service Cloud as a part of the project. The business unit had a lot of separate programs that needed to be updated separately and did not have integrations between them. The business unit is the owner of the software Wilma. Wilma is part of the Visma InSchool-product family and is the leading school administration software in Finland /18/. Support cases are received from key users of different schools and municipalities.

4.2 Objectives

The objective of the thesis was to create a blueprint and easy to follow guide for other companies or business units inside Visma that want to deploy Service Cloud and want to have a basic understanding of which features can be deployed within a set timeframe. By documenting the implementations and processes, best practices and pitfalls are observed which can be utilized and avoided in future deployments.

The objective of this project was to implement an MVP-version of Service Cloud within the business unit. There was a need to eliminate a lot of manual work with the use of automation and create a 360-degree view of the customer to accelerate the use of data inside the business unit. One of the main objectives was to implement integrations between tools, such as Jira and Amazon Connect. There was also a need to assist customers to find the right information and pre-emptively avoid long queue times caused by large number of cases received about the same issue. This could be achieved by providing the right information before the need of personal contact with the use of the knowledge-feature of Salesforce. Because

the business unit operates in a very seasonal business, specific themes are recurring during the year. By creating frequently asked question-articles, it is possible to pre-emptively support the customer and avoid the need for personal contact. This leads to shorter queue times to phone-support and better efficiency in the business unit because agents can prioritize handling cases that are not already explained in articles.

5   PLANNING AND SPECIFICATIONS

Project planning and specifications were implemented using user stories. Specifications that are easy to understand and well defined is something that is very critical for the success of any project /4/. The use of user stories provides the possibility to describe complex processes without going into detail. User stories enable redefinition and redoing of certain features and specifications. This is the main reason why user stories are heavily favored in Agile frameworks. User stories enabled the possibility to redefine features during the project, because the user story describes how the feature should work from the perspective of the user. It does not describe how the feature should be implemented.

The following are examples of user stories that were used in the project.

1) As a customer service representative or manager, I want to follow the status on cases, so I can follow the progress of the cases.
2) As a customer super user, I want to submit my cases using Visma Community, so that I do not have to use other channels.

Using user stories as the project specifications makes the project setting Agile, because the implementation can be developed in several different ways, as long as it works as defined in the user story. The user stories were written from the perspective of customers, internal users, and employees.

6   TECHNOLOGIES AND TOOLS

The main project management tool in this project was Smartsheet. Smartsheet was used in creating the project plan, setting deadlines and assigning tasks to project members. Smartsheet platform makes it possible to collaborate, manage and report on work in real time, automate workflows, and deploy new processes at scale. Smartsheet provides the possibility to make a project plan using a sheet-like design, with ready-made processes, such as closing tasks and setting timeframes for project phases. /5/ Figure 2 shows how sprints were divided into their own segments in Smartsheet.


Figure 2. Picture of Smartsheet

For task management, Trello was used as an internal information board. Trello is a collaboration tool that organizes projects into boards /6/. As seen in Figure 3, the board was organized into three parts, to do, in progress and done. The board also included preliminary deadlines for features and assignees.
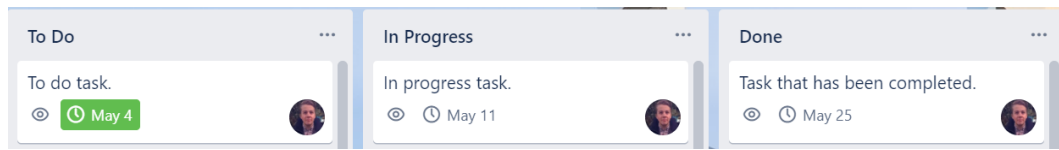
Figure 3. Picture of Trello.

The project backlog was stored in Jira with user stories being a major part of the backlog. Jira is a powerful work management tool for many different use cases; it can be used for Agile software development or as a bug and issue tracker. Jira also provides Scrum and Kanban support out-of-the-box /7/. As seen in Figure 4, all user stories were stored in Jira.
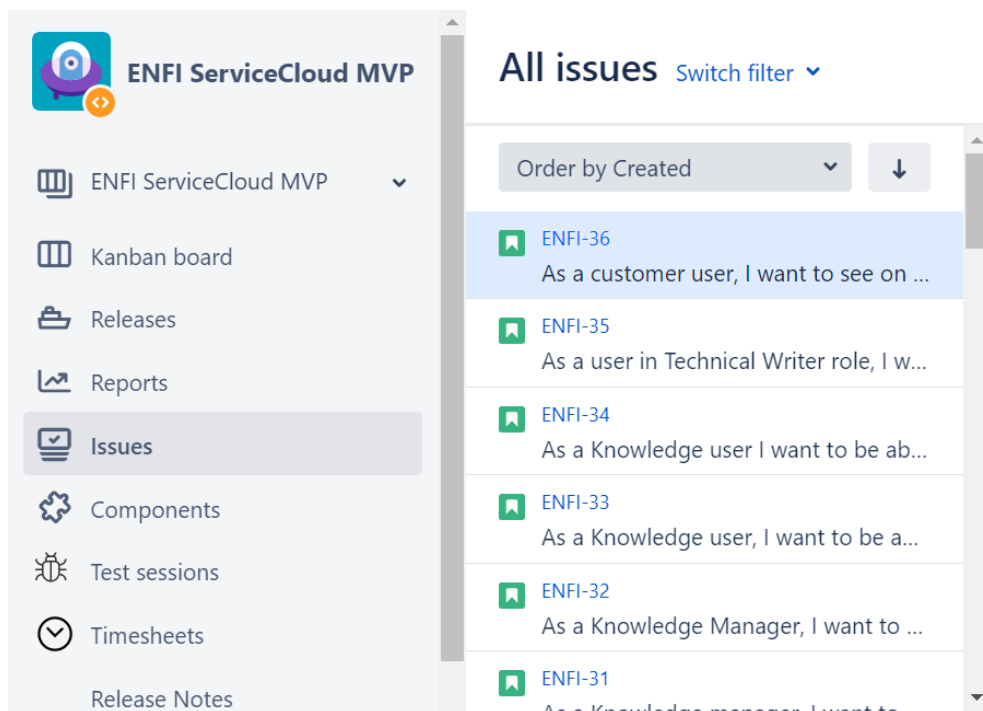
Figure 4. Picture of the user stories of the project stored in Jira.

For process design, Lucidchart was used in creating a flowchart of the case routing and escalation process. Lucidchart is a visual productivity platform for sharing

ideas, information and processes using flowcharts and diagrams /8/. As seen in
Figure 5 the ticket flow was designed using a Lucidchart flowchart diagram.
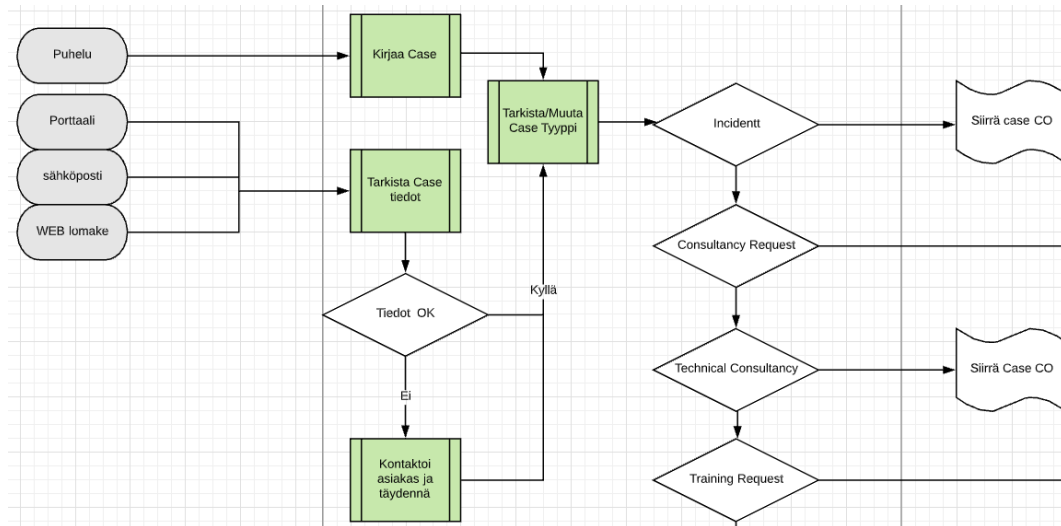
Figure 5. Picture of a Lucidchart flowchart.

7 IMPLEMENTATION

The project was divided into five two-week sprints. Each sprint had its own user stories that were used as the specification.

7.1 Sprint 1 – Case Processes

The objective of the first sprint was to create the case processes that route, prioritize and define the properties of each case. ITIL4 was used as the foundation when designing the flow of tickets and handling of different case types and statuses.

7.1.1 User Stories

The following user stories were chosen for sprint 1.

1) As a customer super user, I want to submit my cases by email, so that I do not have to use any other channels.

2) As a customer super user, I want to submit my cases by phone, so that I do not have to use any other channels.

3) As a customer super user, I want to submit my cases using Visma Community, so that I do not have to use other channels.

4) As a customer, I want to submit feedback from App Store/Play store, so that I do not have to use any other channels.

5) As a customer service representative, I want to send emails to customers from the CRM, so that I do not have to use other clients.

6) As a customer service representative, I want to see open cases in queues, so that I can process and prioritize them correctly.

7) As a customer service representative or manager, I want to monitor the status of cases, so I can follow up on the progress of the cases.

7.1.2 Implementation

The first sprint started with designing the case routing process, by designing a flowchart using Lucidchart. One of the major features that was implemented was an automatic checkup of customer data before the case is created. If the support-case is received from a contact person that is not found in the database, the ticket is automatically closed, and the customer is sent an automatic notification that only known customers are supported. This was implemented because of GDPR (General Data Protection Regulation), as according to the regulation only identi-fied customers can be provided support regarding our product, since it contains personal information.

The business unit is divided into five different teams. Each team has their own queue, and tickets are routed to these depending on the case type. These five teams are Customer Engagement, Central Operations, Customer Success Manage-ment, Product Development and Product Management. The routing is done mainly manually by the Customer Engagement-team, and in some cases automat-ically depending on where the case is received from.

As seen in Figure 6, the main objective of Customer Engagement is to fill in the right information and set the correct case type. The case is routed to the team responsible for handling the case based on the case type. There are ten different case types. Each of these are routed to the corresponding team. For example, if the received case contains a question regarding the number of licenses a customer requires for the upcoming year, the case type is changed to type "Question" and moved to the Customer Success Management-queue. If the received case contains information regarding an issue in Wilma the case type is change to type "Incident" and moved to the Central Operations-queue. There are multiple emails that are routed into Salesforce, and in some cases, these are automatically assigned a ticket type and routed into a specific team-queue. An example of this is the con-sultancy email, which is automatically assigned to the Customer Success Manage-ment-team and routed into the Customer Success Management-queue. This was

implemented using the Email-to-Case feature in Salesforce, where an email address can be assigned to a specific queue.
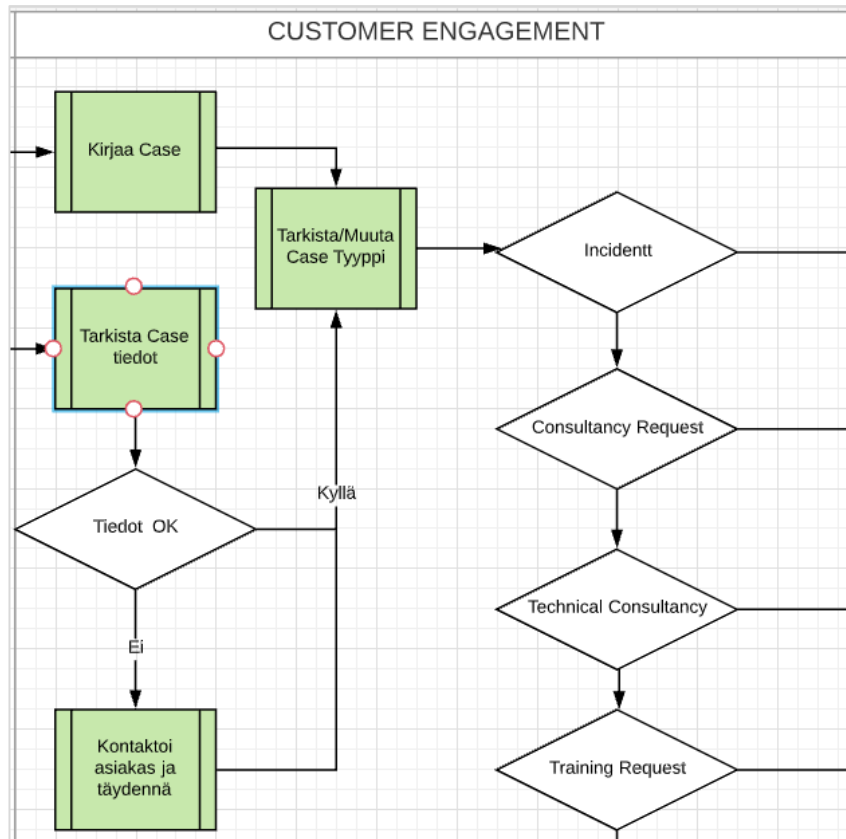
Figure 6. Picture of the Customer Engagement flowchart.

Central Operations is the team that manages incidents, technical consultancies and user support cases which cannot be solved in Customer Engagement. As seen in Figure 7, members of the Central Operations team also have the possibility to escalate cases directly to Jira, which is the main software used by the developers. The integration is a two-way integration that mirrors each software. This means that comments added in Jira can be viewed in Salesforce, and comments added in Salesforce can be viewed in Jira. This way, all communication between development and the Central Operations team can be handled through the respective software.
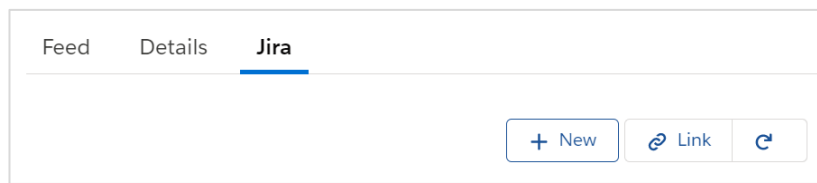
Figure 7. Picture of the Jira-integration.

The Jira-integration was implemented by a team at Visma according to the specifications provided. The specifications of the integration were that the escalation should work both ways. All information added to the case in Jira can be viewed in Salesforce and respectively all information added in Salesforce can be viewed in Jira. There would be no need for product developers to access Salesforce, all needed information could be accessed by escalating the case, and members of the Central Operations-team would not need to access Jira.

Tickets of case type Question and Consultancy request are routed to Customer Success Management. These cases contain information around adding new contact persons, updating customer information, updating the number of required licenses and requesting more information about a consultancy or training.

The Product Management team consists of Product Managers and Business Analysts. This queue handles Request for Change-cases which contains information of product feedback from customers. Each team have their own queue, which is named exactly after their team-name.

The Product Development team consists of Infrastructure Engineers. This queue handles Technical Support-cases, which contain issues or requests concerning the SaaS-environment and infrastructure. This is also the team that handles customers moving from an On-premises-environment to the SaaS-environment.

Each team has the possibility to transfer cases to different queues or persons inside the business unit. It is also possible to add comments on a case, and to tag a

person in the case feed, which sends a notification to the tagged person. There is also the possibility to send an answer to the customer using the Salesforce portal or send emails directly from the system as seen in Figure 8. These send-features are features that Salesforce provides, and do not need to be implemented separately.

Figure 8. Picture of answering customer by email.

Amazon Connect is the VoIP (Voice over IP) provider that is used in the business unit and it was integrated into Service Cloud. The integration provided the possibility to call customers right from the case information without having to separately open another software. Amazon Connect is an easy-to-use omnichannel cloud contact center, which includes the possibility to record conversations, route conversations based on profiles and gather analytics based on conversation metrics /9/.

7.1.3   Conclusion

All user stories were answered successfully in Sprint 1. All required queues were created and tested that they worked as specified. Amazon connect was successfully integrated and tested and the Jira integration worked as specified.

7.2 Sprint 2 – Service Level Agreements & Analytics

Service Level Agreements (SLAs) define the level of service expected. SLAs also define the metrics by which a service is measured as well as decides on the penalties if the agreed service levels are not achieved /10/. The objective of Sprint 2 was to create the metrics and processes to follow SLAs and to create the functions needed for reporting key SLA-metrics to the customers. Key metrics include ticket first response time, ticket resolution time and number of incidents received.

7.2.1   User Stories

The following user stories were chosen for sprint 2.

1) As a customer service manager, I want to see which case milestones are coming up next, so that I can lead service.
2) As a customer, I want to see my SLA-dashboards in the customer portal, so that I do not have to ask for them from my customer support representative.
3) As a manager, I want to measure SLA KPI's so that I can lead my team.

7.2.2   Implementation

In Service Cloud, milestones and entitlements are used to measure SLAs. Milestones define the major steps during a support process, for example when a new case is received /11/. Milestones can be defined as a countdown clock that is triggered when a case is received by a particular customer as shown in Figure 9.
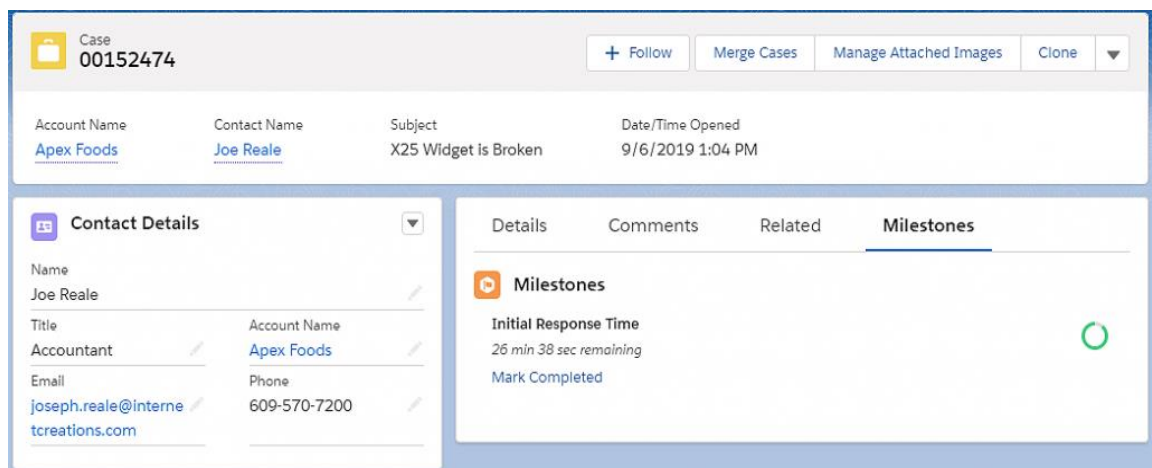
Figure 9. Picture of milestone countdown clock inside case /16/.

When the milestone is reached, and the initial response has been sent, the count-down clock stops and the next milestone is triggered. Milestones can also be used for other support processes, such as escalation rules and setting up time limits on responses. In this chapter, we will only be working with them as a part of the SLA-process.

Typically, SLAs are defined based on the type of the ticket and urgency. The type of ticket, and the urgency are set up using entitlements in Service Cloud. Entitlements indicate the type and level of support the customer is entitled to. Entitlements allow the monitoring of SLAs and ensure that milestones have been reached. As seen in Figure 10, the entitlement has been set up using the milestone with the resolution time value of 480. This means that to uphold the entitlement the case needs to be closed with the status resolved within 480 minutes.

Figure 10. Picture of setting up an entitlement process /12/.

A typical SLA defines the resolution time, first answer time, and business hours depending on the case type (Incident, User Support). An automated trigger was also implemented during this project, where an expiring milestone triggered a message that was shared in the internal communication-system. The trigger was designed to send messages when a milestone hit the one hour before expiration and two hours before expiration timestamps.

Figure 11 illustrates how an entitlement process was set up during the project. As seen in the criteria section, a specific set of rules are specified to each milestone. As an example, if the case received has the case type "User support" or "Incident" and the priority is set to "Critical" the "First Response Critical"-milestone is added to the case. To comply with this milestone, a first response must be sent withing 120 minutes since case creation, if the time exceeds that amount the milestone has not been reached and the SLA set target has been breached.
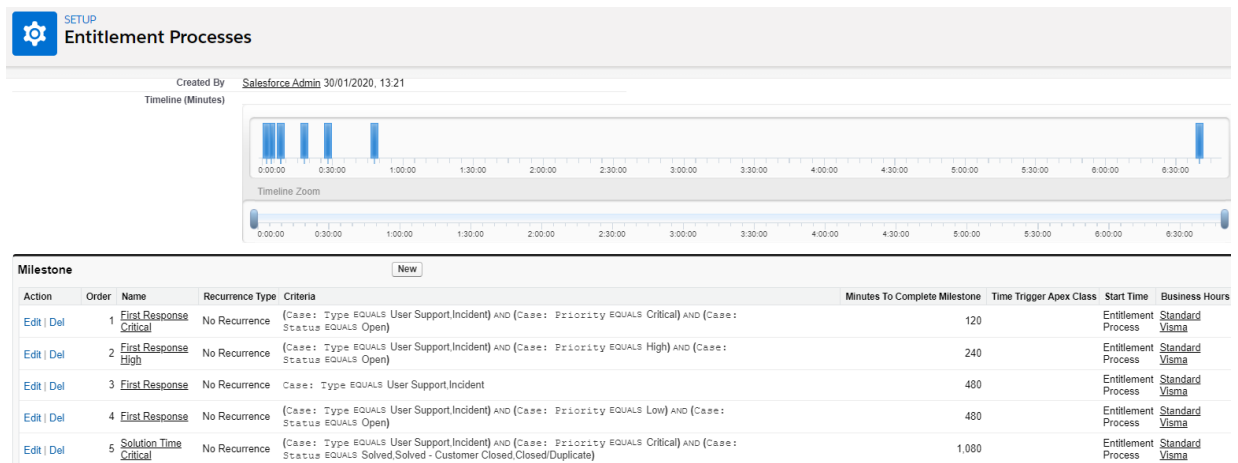
Figure 11. Picture of setting up the entitlement process.

7.2.3 Conclusion

After testing the user stories specified, it was confirmed that there were no pre-existing SLA-dashboards implemented for customer users in the portal yet. Even though the feature would be greatly beneficial, it was something that was not implemented in the old portal, as it was seen as a non-critical feature. It was agreed that this would be implemented later. The entitlements and milestones were set up correctly and worked as expected.

7.3 Sprint 3 – Salesforce Portal & Surveys

The Salesforce customer portal provides a personalized online support channel to customers where they can find their own cases, use Salesforce knowledge for solutions and answers, run customized reports and enable access via single sign-on /13/. The Salesforce Surveys tool provides the possibility to build custom questionnaires, such as CSAT (Customer Satisfaction) or NPS (Net Promoter Score).

7.3.1 User Stories

The following user stories were chosen for sprint 3.

1) As a customer user, I want to view the products that I have bought so that the list does not contain unnecessary items.

2) As a customer user, I want to be able to mark my tickets as private so other users from my organization do not have access to them.

3) As a customer user, I want to approve the solution offered to me, so that I can complete my request.

4) As a customer user, I want to give feedback on closed cases, so that I can provide input on quality.

7.3.2 Implementation

Salesforce portal was an integral part of the project, and important for the future of using data to better support the customer, because it provides the possibility for customers to fill in information that is crucial to better prioritize and route tickets. Salesforce portal provides an online support channel for customers with a lot of built-in features. By providing the possibility for customers to better provide information when creating a new case, it simplifies the routing process inside the business unit and automates some of the routing processes currently done by hand.

Salesforce portal provides the possibility for customers to define the urgency and impact of the case. An automated service was also implemented which calculates the priority of the case out of the "Urgency" and "Impact"-fields which the customer is required to specify when creating a new case. As shown in Figure 11, the automation calculates the priority and sets it automatically. If the impact is calculated to be critical it will also register the case as a major incident, which will trigger the incident management process inside the business unit.
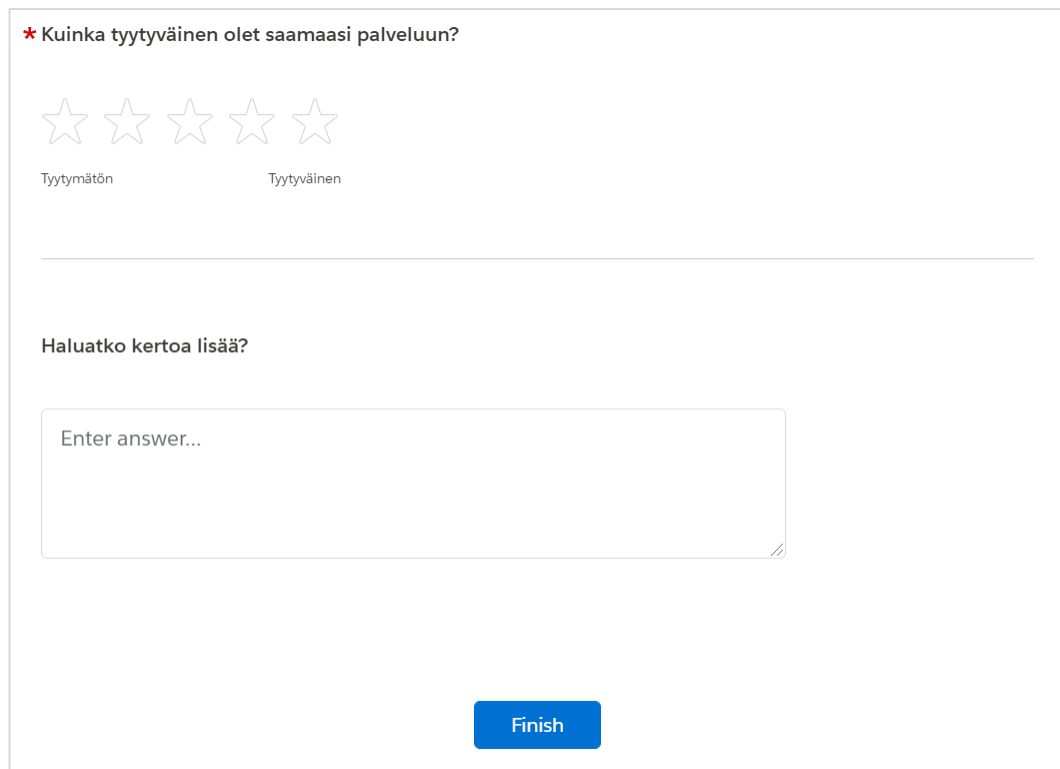
Urgency	Impact	Priority	Major Incident	Impact/Urgency/Service	Specification
Low	Low	Low		Low Impact	Affects one customer
Low	Medium	Low		Medium Impact	Affects more than one customer
Low	High	Medium		High Impact	Affects a segment of customers
Low	Critical	Critical	✓	Critical Impact	Affects all customers
				Low Urgency	Problem with less important function or small problem with service
Medium	Low	Low		Medium Urgency	Problem with service or use of product
Medium	Medium	Medium		High Urgency	Disruption of service or use of product
Medium	High	High		Critical Urgency	Significant disruption of service or use of product
Medium	Critical	Critical	✓		
High	Low	Medium			
High	Medium	High			
High	High	High	✓		
High	Critical	Critical	✓		
Critical	Low	Medium			
Critical	Medium	High			
Critical	High	High	✓		
Critical	Critical	Critical	✓		

Figure 12. Picture of the Urgency/Impact matrix.

One of the main features of Salesforce portal is that you can add custom fields and objects. This enables the customer to specify which part of the software the issue concerns. This is a great way for gathering data when developing services and products. For example, it can be specified that the case is registered as a performance issue. Out of these custom fields, data can then be gathered and used when creating dashboards. These dashboards can showcase how many cases are received regarding a particular issue.

Another key feature implemented during this sprint was Salesforce Surveys. Salesforce Surveys enables the possibility to create forms and questionnaires using an easy-to-use editor /14/. During the sprint, a CSAT-survey and an automated trigger were created, where for every case closed with the status "Solved", the customer was offered to give feedback regarding the case transaction. Salesforce Surveys is a very versatile tool and can be used to create surveys, gather feedback, follow up on leads and a collection of other things. However, for this project the objective was to create a customer satisfaction survey which is automatically sent out after a case is closed. As seen in Figure 13, the created survey was a very basic

5-star rating survey with a free text field for additional comments. Feedback pro-vided by the customer is attached to the case. Given feedback can also be utilized by showing it in reports and dashboards. The feedback is also attached to the case, where it can be viewed by the customer support representative that owns the record.

Figure 13. Picture of the survey.

7.3.3 Conclusion

All user stories were met successfully and the portal and survey features were im-plemented as expected. The priority matrix also worked as required.

7.4 Sprint 4 – Knowledge Base

Salesforce Knowledge is a feature that provides the possibility to create different types of articles. The most common article is the frequently asked questions (FAQ)

article. There is also the possibility to create custom articles that specify the steps in a procedure, such as how to deploy a new feature or known error-articles that contain information about known errors, and possible workarounds. The key benefit of Salesforce Knowledge is that you can pre-emptively support customers through the Salesforce portal instead of creating support case for each issue, by providing ready-made FAQ-articles that the Salesforce search engine provides.

When implemented correctly, and the knowledge database is built up to an extent where it can provide customers with articles, it can positively affect the number of support cases received and provide better support for the customer.

7.4.1   User Stories

The following user stories were chosen for sprint 4.

1) As a knowledge user I want to be able to create, edit and publish knowledge articles regarding my business area.

2) As a knowledge user, I want to be able to send an article for translation so that it is available in all needed languages.

3) As a knowledge manager, I want to have separate article types to organize articles, so that I can more easily filter articles.

4) As a knowledge manager, I want to have a known error article type, so that it can have an applicable layout.

5) As a knowledge manager, I want to classify articles so that they can be more easily managed and create the possibility to provide different types of articles to the customer.

6) As a customer, I want to view knowledge articles through the portal, so I do not have to contact support.

7) As a customer service representative, I want to send knowledge articles to the customer from the case actions, so that I do not have to attach articles separately.

8) As a customer service representative, I want to have articles created in MadCap Flare to be available as knowledge articles, so I do not have to search different sources.

7.4.2 Implementation

The knowledge feature was a critical part of the project and part of the reason why Service Cloud was chosen. Salesforce Knowledge is a powerful knowledge management system that helps solve issues or provide answers to customers as well as to internal employees /15/.

The implementation of the sprint was started by defining the structures for articles needed. The result was three knowledge articles: a general article (1) which can be used for simple question and answer article, a known error article (2) which can be used for known errors, including possible work arounds and root causes, and a procedure article (3) that can be used for defining the steps of a particular procedure, such as the deployment of an additional service.

Wilma is an educational platform that contains different customer segments, such as tertiary, lower-level and upper-level educations. This affects what knowledge articles they can see because the same feature is utilized in different ways depending on the educational level. Some knowledge articles cover all educational levels and should be published for all customers. The possibility to choose which educational level the article should cover was solved by creating a product hierarchy where the correct product is chosen. If the article covers all products, the top of the hierarchy chain is selected, and the article is published across the whole customer base.

Knowledge article publishing was designed in a way that everyone working in a support function in the company would be able to create articles. The reason be-

hind this was that every successful case-transaction would be changed into a general FAQ-knowledge article, which provides help for other customers regarding the same issue.

Once the article has been successfully written, the creator is then offered the option to send it in for translation or publish it as it is. By submitting the article for translation, the writer is then required to select a translator and provide a deadline for the translation. After this, the translator will be notified of the article in need of translation. When the writer publishes the article, they are provided the possibility to define if the article should be viewable internally or externally.

As seen in Figure 13, the search engine of the portal provides articles from the knowledge feature based on what search terms are used. If the customer finds an article that provides the support needed and closes the portal, the portal registers the case as a successful pre-emptive support case, and the data about this is gathered to further enhance the creation of new articles in the future.

Figure 14. Picture of portal providing a knowledge article.

The knowledge articles can also be used when answering customers from Service Cloud. Public articles can be directly attached when answering by email. Attaching

an article to a case provides data on how useful a particular article has been. The knowledge feature also provides the possibility to create internal articles that employees can use. This can be effective when handling different types of known errors or issues concerning internal software.

One of the sprint objectives was to integrate MadCap Flare to the knowledge feature. MadCap Flare is a single source publishing and content management system, used by technical writers and documentation specialists /19/. By integrating Mad-Cap Flare with Salesforce, it would enable publishing articles directly from MadCap Flare to Salesforce Knowledge.

7.4.3   Conclusion

The deployment of the knowledge and survey feature was successful, however the MadCap Flare integration was unsuccessful, and will be implemented later. Even though the MVP-version included the MadCap integration, it was not a critical feature and should not have been listed in the MVP user stories. The knowledge feature of Service Cloud is a powerful tool and will greatly benefit the company in the future. However it requires time to build up the database with articles before the benefits can be seen.

7.5 Sprint 5 – Deployement

The last sprint was the deployment sprint where Service Cloud was deployed into the business unit, introductions for the personnel were held, customers were informed, traffic to Service Cloud was redirected and open cases from the old software were transferred to Service Cloud.

7.5.1   User Instructions

The internal introductions to the software were held in separate sessions, and Product Management and Product Development in a joint session. Additionally,

the knowledge feature was introduced separately. Each introduction demonstrated the most critical parts of the software and the main tools for each team. Videos will be produced in the future to support the learning process and make the onboarding of new employees easier.

7.5.2 Deployment

The deployment phase was successful and carried out during the weekend to minimize the impact and leave room for possible issues. The first step was to redirect email traffic to Service Cloud. The next step was to replace the portal sign-in link with the new link. During the weekend, the case-flow was monitored and verified that all cases were routed to correct queues. The deployment of Service Cloud was planned to be the 12th of April 2021, and support to the old ticketing software ended on the 19th of April 2021.

Customers were informed of the upcoming changes a week prior to the deployment, about the new portal, and where to access it from. Customers were also informed about the new features and the benefits of the new software, and how the use of the new software will enhance case handling times using knowledge articles.

The old ticketing software was successfully shut down on the 19th of April, with a backup of the database stored. During the week before the deployment, all open tickets were transferred to Service Cloud. No closed tickets were transferred because they will be anonymized and added into knowledge articles to support our customers in the future.

8   PROJECT CONCLUSION

The project was executed as a Scrum-modelled project and it worked well given the specifications and timeframe of the project. The implementation was successful as the most critical parts of the project were achieved. Because of the tight schedule some of the internal trainings had to be arranged on quite short notice and did not go deep into detail. Additional user instructions will be created and shared later.

The key benefits of using software like Salesforce is to get an actual 360-degree view to customer. It enables a lot of automations and pre-emptive actions, in the form of knowledge articles and custom fields which can be used when analyzing cases. The use of Salesforce portal will provide the possibility for customers to better specify the issue, which helps the routing and prioritization of the case.

Furthermore, the software could be developed in a way where it uses more of the data gathered, in the form of dashboards and reports gathered using the data customers specify, and information added later. Omnichannel, which is a single point support channel, could also be deployed to enable better support to the customer and provide additional points of contact in the form of chats. By building up the knowledge database with articles created from solved cases, the business unit can provide a better customer experience to the customer by providing pre-emptive support in the form of FAQ-articles.

Even thought the project was on a tight schedule, all critical features were implemented, and the deployment phase was successful. The MVP-plan could have been better designed to only contain critical features. Software as comprehensive as Salesforce requires constant development and the business unit should constantly strive to develop the processes and software to accommodate the fast-changing circumstances of a business within technology.

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