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IMPROVING DOCUMENT MANAGEMENT PRACTICES FOR NOKIA GEAR



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DOKUMENTTIHALLINNAN PARANTAMINEN NOKIA GEARILLE

Dokumenttihakinnalla on hyvin tärkeää nykypäivän yrityksille. Dokumentointihakinnajärjestelmissä dokumenttien hallinta on helppoa ja nopeaa. Dokumenttien jakaminen, poistaminen, etsiminen, muokkaaminen ja metadatan käyttö ovat hakinnajärjestelmien perusominaisuuksia.

Tämän opinnäytetyön toimeksiantaja, Nokia Gear, on tunnettu erilaisten ja taidokkaiden matkapuhelimien lisävarusteiden luonnista. Nokia Gearin kaksi tiimiä, Nokia Gear Mechanics ja UI & UX (User Interface & User Experience), haluavat parantaa tämänhetkistä dokumenttihakinnaa, valitsemalla uudet hakinnat vanhojen tilalle.

Tämän opinnäytetyön tarkoituksena on antaa perustietoa Nokia Gearin tiimeillä käytössä olevien dokumenttihakinnajärjestelmien epäkohdista. Työn tarkoituksena oli etsiä hakinnat, jotka vastaavat Nokia Gearin asettamia vaatimuksia dokumentoinnin hallinnalle. Lopuksi esitellään valitut hakinnat ja keskitytään hakinnajärjestelmien käyttöönottoon. Työmenetelminä käytetään viikkoraportointia, palavereja yhdessä Nokia Gear Mechanicsin ja UI & UX:n kahden edustajan kanssa.

Microsoft SharePoint, Socialcast, DocStore ja verkkolevyt vastaavat Mechanicsin ja UI & UX:n asettamia vaatimuksia. Jokaisella edellä mainitulla työkalulla on oma erikoispiirteensä ja näin ollen kaikkia tarvitaan Nokia Gearin tiimien dokumenttihakinnassa.

Projektin lopputuloksena molemmat Nokia Gearin tiimit ottivat uudet dokumentointihakinnajärjestelmät käyttöön.

ASIASANAT:

Dokumenttihakinnat, Nokia Gear, SharePoint

BACHELOR'S THESIS | ABSTRACT

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IMPROVING DOCUMENT MANAGEMENT PRACTICES FOR NOKIA GEAR

Document management is a highly important for today's companies. Sharing, deleting, searching, editing and changing metadata is an easy and fast way to control documents in document management systems.

The commissioner of this thesis was Nokia Gear which is known for creating differentiated, iconic, crafted and branded accessories. Two of Nokia Gear's teams, Nokia Gear Mechanics and Nokia Gear UI & UX (User Interface & User Experience), wished to improve their current document management systems by choosing new systems to replace the existing ones.

The purpose of this thesis is to show the main problems in existing document management practices which were used in both teams. The aim is to search relevant document management systems for the teams and point out how the selected systems correspond to the requirements. The emphasis is on the implementation of the systems, information of chosen systems and feedback from Nokia Gear. Working methods were weekly reports and meetings with representatives of Nokia Gear Mechanics and Nokia Gear UI & UX.

Chosen document management systems were Microsoft SharePoint, Socialcast, DocStore and network drives. They all corresponded to the requirements which were given by the representatives of Mechanics and UI & UX. Each of the systems had specific feature and that is why they all needed in the document management in both Nokia Gear's teams.

As a result of this project, a new document management systems was taken in use in both teams of Nokia Gear

KEYWORDS:

Document management, Nokia Gear, SharePoint

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VOCABULARY

Nokia Gear UI & UX	One team of Nokia Gear. (Nokia Gear User Interface & User Experience).
Portal	A website that brings together information from diverse sources.
Wiki-Pages	A website that allows creation and editing interlinked web pages via web browser. Used with markup language (for example HTML) or a WYSIWYG (What You See Is What You Get) text editor.
Action Points	Like an Action Item which is used in meetings for example within a project. " <i>Next things to do</i> ".
NOE	Prefix for Windows domain in Nokia IT-environment.

1 INTRODUCTION

The commissioner for this thesis is Nokia Gear which is known of creating different kinds of mobile accessories. Nokia Gear is divided into two teams; Nokia Gear Mechanics and Nokia Gear UI & UX (User Interface & User Experience). Mechanics area defines mechanical requirements of products. UI & UX is an organization which focus on opinions of users.

The purpose of this thesis is to search relevant systems for implementation and compare those as well as describe the information on about different document management systems which are used at Nokia worldwide.

Mechanics team and UI & UX team wish for new, clear, simplified and efficient document management systems which are implemented and deployed into use. These implemented systems will replace th previous overlapped systems and would offer added-value to both of the teams.

Thesis concentrate on the background of Nokia Gear, Nokia Gear Mechanics and Nokia Gear UI & UX. In addition it highlights the targets and the schedule of the project. It gives an insight to the working methods during the project and describes which document management systems were chosen and why.

All required properties were found within the four chosen document management systems; SharePoint, Socialcast, DocStore and network drive. These four tools and their benefits are also discussed.

2 INTRODUCTION OF THE PROJECT

Nokia Gear aims to provide cool, differentiated, ionic, crafted, branded and innovative lifestyle mobile accessories designed to enrich the enjoyment of Nokia devices. (Nokia Intranet, Nokia Gear).

This thesis focuses on improving document management of two teams of Nokia Gear.

2.1 Nokia Gear Mechanics and Nokia Gear UI & UX

Nokia Gear Mechanics competence area defines mechanical requirements of products. Nokia Gear Mechanics guides and supervises suppliers who design all supplementary parts for mobile phones, wireless and wired headsets, charging products and music products. Charging products include for example batteries, battery chargers etc.

Employees of Nokia Gear Mechanics belongs to R&D (Research and Development). Mechanics is distributed to three different sites; Salo, Espoo and Beijing. In Finland there are 5 employees and in Beijing there are about 10 employees in Mechanics team.

Nokia Gear UI & UX is a team which focuses on opinions of users. Employees in UI concentrate on to develop the user interface of products. Employees of UX develop and ensure that user experience of mobile accessories is good. In UI & UX team works about 10 employees.

2.2 Targets of the project

The targets of this project were to improve clear, simplified and efficient document management practices to Nokia Gear Mechanics and Nokia Gear UI & UX competence areas. New document management practices would offer added-value to both of these Nokia Gear's teams.

The project's team consisted of the following people: Project Manager in Mechanics, Project Manager in UI & UX and my tutor, Senior Specialist, Requirement Engineering Tommi Hakala and I.

The schedule was well organized and there was c. nine months to finish the whole project - search best document management systems and implement those into use. First the author studied the different kinds of document management tools which teams of Mechanics and UI & UX used. Some questions relating those systems brought up. Then I arranged a meeting with representatives of Mechanics and UI & UX. During the meeting they answered my questions, that I could continue my studies. These representatives also gave pros and cons of each document management system. With this information I listed all definitions of each system and tried to search new and better document management system within Nokia Corporation.

After I studied the existing and new document management systems and collected information which corresponds to the requirements of Mechanics and UI & UX I gave a small demonstration of each system. I also presented those good and bad sides of each system and they decided what would be the best for them.

After the demonstration session I started to study more deeply those document management practices and tried to find the best features which would fill the requirements. Description of each system will be shown later in this thesis.

I showed the results of my work in common meetings and we had a discussion of achievements, changes for me to do in those systems, schedules, next steps, challenges, risks, deviations and key issues etc. I made reports weekly of these below mentioned things, which I sent to the both representatives of Mechanics and UI & UX a day before the meeting. These weekly reports are in the Appendix at the end the thesis (Appendices 1-7).

After taken into use those document management systems and holding training sessions for all team members, for Finnish and Chinese, I kept a meeting for

releasing the work for both of the representatives of Mechanics and UI & UX. I rehearsed all the systems again and show most important properties of those. I also described where my self-made instruction materials for Mechanics and UI & UX were located.

Documents of Mechanics and UI & UX were located among those document management systems. Some of documents were only visible or restricted for the team members of Mechanics team and UI & UX team and some of the documents were visible for whole Nokia Corporation. Some of documents of Mechanics were related into virtual forums, virtual forum tasks, preconception, competence development, process instructions and datasheets. These were usually done by Microsoft Word, Microsoft Excel or Microsoft PowerPoint.

3 CURRENT SYSTEM FOR MANAGING DOCUMENTS

3.1 Current document managements systems

In this chapter I focus on current systems and what are the main problems on those. At the end I concentrate on the requirements which teams of Mechanics and UI & UX have established for the new document management systems.

Nokia Gear used network drives, wiki-pages, intranet web-pages, ME Supplier Feedback Channel Teamtool, Nokia Gear Mechanics Teamtool, emails, SharePoint and common action point's management which were managed with Microsoft Excel, by listing all action points as queue.

3.2 Problems in current systems and their future solutions

Current document management systems were not documented and may have been unclear and not coherent among the team members.

All team members within Mechanics competence area were doing their document management based on their own best practices. There were several, possible overlapping systems implemented and taken into use within the team of Mechanics.

All data was stored and distributed to several places like network drives, internal wiki pages, two different kinds of TeamTools and internal web pages.

There was a problem concerning documents, which were linked to each other. When the versions of documents were changed, the pointing URL is also changed and therefore links might be broken.

Categorization of document was not clear due the folder structure and that is why users were unaware where the documents should be located. Existing document management systems should be replaced with new document management systems. In weekly meetings we decided what would be the best folder structure and categorizations within these new implemented document management systems, which I focus on later in this thesis.

Intranet web pages

Intranet web pages were not used anymore because they need to be managed with Website Builder's Toolbox. Website builder's toolbox was used for publishing pages on intranet. These Intranet web pages will be eliminated Nokia-wide in the future.

ME Supplier Feedback Channel TeamTool

A team of Mechanics use Feedback Channel TeamTool to gather feedback from suppliers for internal information. Suppliers should not be able to see feedback of each others. Administration in current system is not that easy as required either. This Feedback Channel TeamTool application will be eliminated Nokia-wide in the future.

Nokia Gear Mechanics TeamTool

TeamTool was used for storing and sharing Company Confidential information within Nokia and with collaborators. All the meetings, documents and action points could be tracked through the system which was used through a web browser. This TeamTool-application was going to be discarded Nokia-wide.

Emails

Microsoft Outlook was a primary tool for discussions. Outlook was not an efficient way to manage discussions about different topics because teams of Mechanics and UI & UX would like to reduce the usage of Outlook only for series of short messages within many respondents. Virtual forum in Sharepoint and feedback would reduce the number of emails.

Microsoft SharePoint

Microsoft SharePoint workspace existed but it was not in active use. It might have been because of low skill in using SharePoint and insufficient support on Salo sites. SharePoint seemed to have many good features and it could be one of document management systems in the future.

Common action points management

Action points (Like an Action Item which is used in meetings for example within a project. “Next things to do”) were managed in TeamTools and exported to Excel and delivered to supplier before the meeting. Meeting minutes will be updated during or after the meeting. Illustrating of actionpoints with color-coding was seen as an advance in Excel use. Meeting minutes and actions points are possible manage in Microsoft SharePoint in the future. (Picture 4.)

File transfer for large files

One of the suppliers delivered video files from usability testings. Video files were delivered to Nokia on DVD or via e-mail. This project’s scope was to establish a network from the suppliers’ to Nokia Extranet.

3.3 Requirements of prospective document management systems

Nokia Gear would like that the new systems are user friendly and saving and searching specific documents would be effortless. Document management systems should be like “a living database” and importing big files should be possible. Management of systems and access rights should be easy. Both teams, Mechanics and UI & UX, want to reduce the number of emails.

The several, possible overlapping systems which were implemented and taken into use within Mechanics team, should be extracted. New systems should fulfill all the functionalities of the existing systems and also meet the new requirements.

Requirements

1. Need to make documents easier to locate
2. Need to decrease a number of emails and discussions are easily available to all team and/or project members
3. Tracking and managing action points efficiently
4. Documents version control have to be taken into account
5. Integration to Microsoft Office and other Nokia tools
6. Need of Social media or other similar solution
7. File transfer for big files. There has to be other solutions than DVD and e-mail.

4 CHOSEN DOCUMENT MANAGEMENT SYSTEMS FOR NOKIA GEAR

In this chapter I focus on the chosen document management systems for both teams, Mechanics and UI & UX. There were almost 10 choices for document management systems, some of those were the previously used and some of them I had found from Nokia Intranet with my superior Mr. Hakala.

Representatives of Mechanics and UI & UX and the author had a discussion and demonstration of each new system but the systems which corresponded to the requirements were Microsoft SharePoint, Socialcast, DocStore and network drives. Each of the systems had specific feature and that is why they all needed.

This solution decreased the number of different, overlapping systems; documents will be organized due to the folder structure. Team members are now working within the same systems and changes in it will be visible for all. Synchronization between SharePoint and Socialcast will also enclose the team members and other Nokia employees.

Docstore, Socialcast are discussed further in the following subsections.

4.1 Nokia SharePoint

Microsoft SharePoint is a web application platform which is related to document and content management. This expansive platform allows managing and provisioning of intranet portals, extranets, websites, document and file management, collaboration spaces, system integrations and enterprise search for example. Nokia has ordered its own SharePoint platform which contains required features. (Microsoft SharePoint 2011).

Nokia Gear Mechanics and UI & UX have decided to keep SharePoint for their internal working area. SharePoint would be effective for creating, organizing and modifying documents easily and make access-control easy. They wish to

minimize the amount of emails with **Socialcast Reach WebPart** (Reach is an extension to the Socialcast platform where employees interact with information and feedback each other). (Socialcast 2011).

Microsoft SharePoint offers many features but the most importantly it is easy to locate the documents. In SharePoint it is possible to create discussions areas, reduce a number of emails, tracking and managing action point efficiently, version control of documents and integration to Microsoft Office tools and Socialcast. Almost every requirement is fulfilled with SharePoint.

4.1.1 Content of SharePoint

Nokia SharePoint is divided into six different main areas; Sites, Communities, Content, Search, Insights and Composites. Sites ensure that a user is able to deliver documents, administrate projects with colleagues and publish materials to suppliers. Communities include co-operating tools which offers an easy way to share ideas and thoughts. Content management is easy due the storage of documentation, automatic content classifying with title and tag filters for example. Enterprise Search allows a user to search for example documents, sites and applications from internal sites of Nokia, the current workspace (entire platform, which contains all the six main areas) where a user is located or the current subsite (a single site in SharePoint workspace) where a user is located.

Insight provides a possibility to use reports, documents and databases for users who have permissions to a specific workspace. Composites contain tools and components, which allow doing customized business solutions in SharePoint workspace with codeless resolutions.

4.1.2 Workspace

A workspace is a number of possible sites, lists and libraries with a collective administration, security and content settings. Each workspace has a single top-level workspace (a parent site) and one or more sub workspaces.

A workspace is where the first level end users work with. End users do not administer databases or web applications. These are administered by IT and farm administrators. SharePoint's administration is divided into two parts: business and IT. Business is responsible for the content stored at the workspace level and below it. IT is responsible for the SharePoint Farm, Server, Web Applications and Databases.

A workspace owner has the main responsibility for the whole workspace and he is also the site collection administrator. Farm administrator does not have access to the content unless given access by the workspace owner.

to give an example, permissions are assigned on the workspace level. This makes it possible for business units to create their unique workspace with specific permissions and features. Also, management can be delegated for each workspace and sub-site (SharePoint, Nokia Intranet).

4.1.3 Sites and sub-sites

A SharePoint site is a collection of pages, lists, and libraries. A site may contain sub-sites, and those sites may contain further sub-sites. Typically, sites need to be created from scratch, but it is possible to create sites with pre-defined templates that provide different features and properties. Examples of site templates in SharePoint are blogs and collaboration sites. Nokia has its own predefined templates for documents and project for example. Those appearance, user interface and features are different. A subsite is a single SharePoint site within a site collection. A subsite can inherit permissions and navigation structure from its parent site or these can be specified and managed independently. -

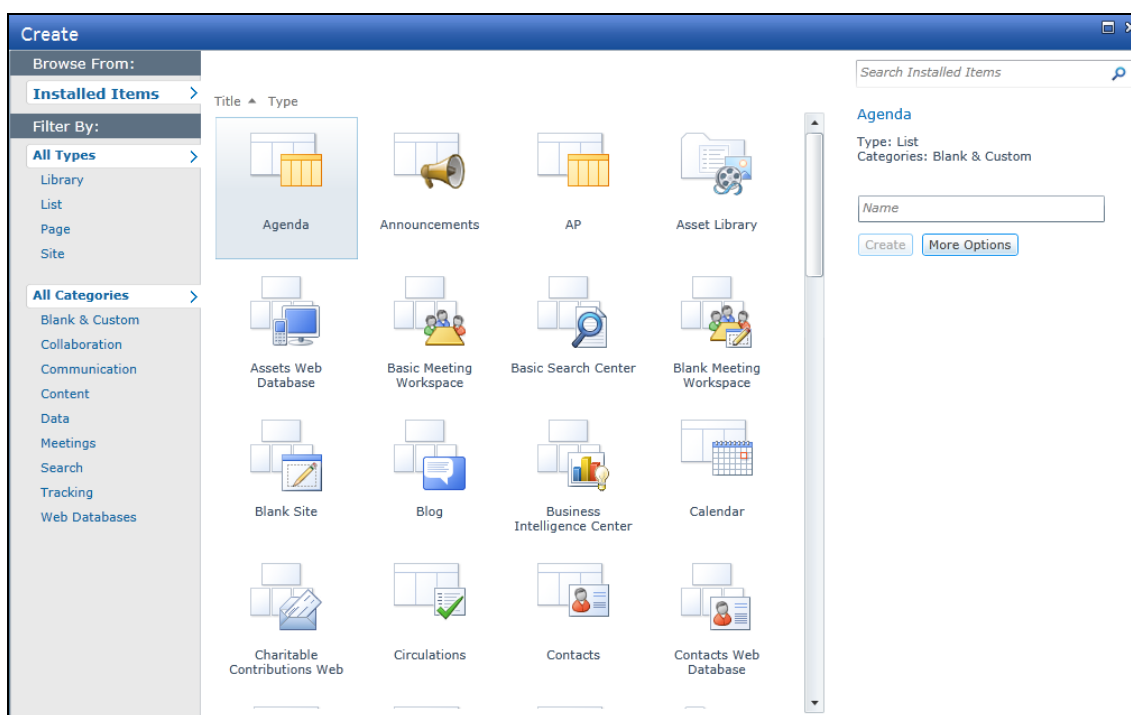
4.1.4 Libraries and Lists

A library is a location in a site where a user can create, collect, update and manage files with team members. Each library displays a list of documents and files which a user has uploaded.

A user can customize libraries in different ways and it is possible to control how files can be viewed, tracked, managed, and created.

There are several library templates to make working with files more efficient. It is possible to store different kinds of files to libraries with special features for each library, e.g. Document library, Form library, Picture library. (Picture 1.)

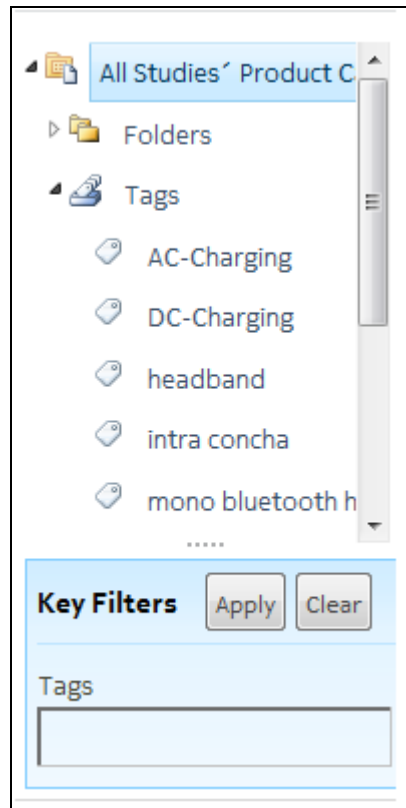
Libraries have several common settings and features that work the same way in all libraries.



Picture 1. Templates of lists and libraries.

Information about the documents, metadata, is stored in library columns, which can be used to sort and filter the content to make finding the right document easier. Searching for the specific documents is more efficient with these tags which are linked to the documents. One document can include multiple tags.

(Picture 2.) Users can create views to reapply sorts and filters in libraries. Using Views is more efficient than only using folders to organize content in libraries.

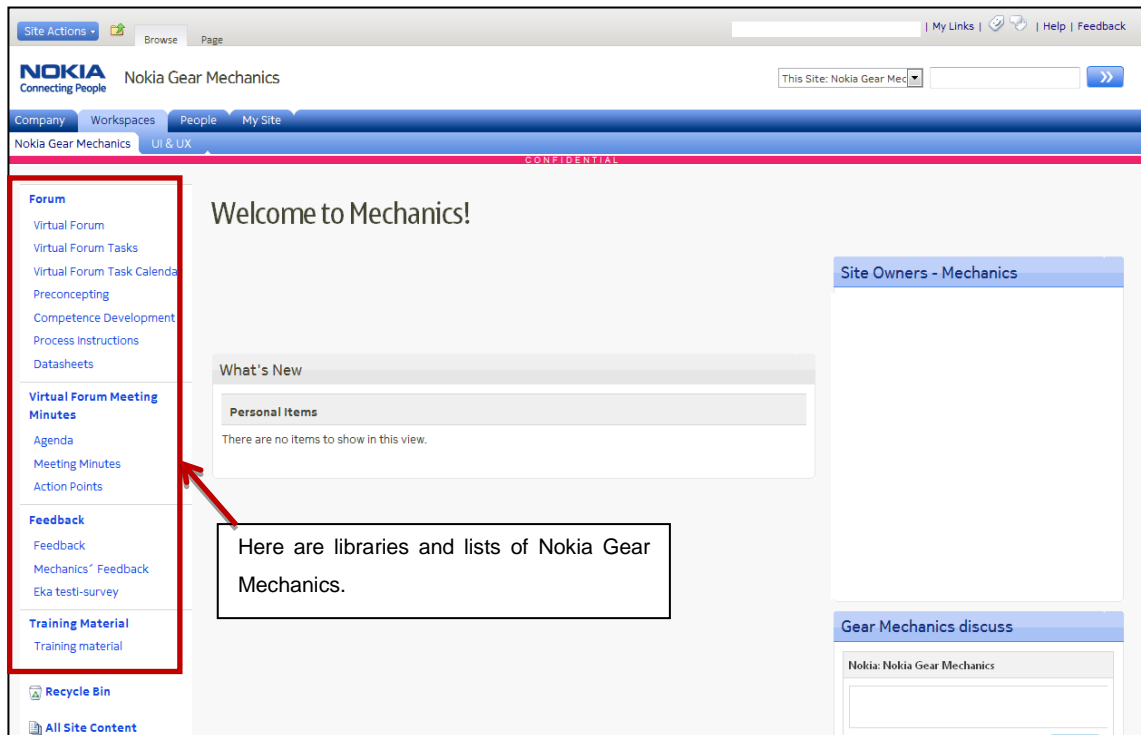


Picture 2. Documents can be sorted and filtered with different tags.

SharePoint contains several kind of list templates for different uses. Lists and libraries are used for storing information such as calendar events, documents, pictures and tasks. Lists can store all kinds of information needed in the daily work and make it possible to view it in several different ways. A way to differentiate between lists and libraries is to think about the information stored in them.

Lists should be used when the information can be stored directly into SharePoint, contact list or a project task list. If a user track information using Excel and do not require the calculation tools available in Excel, the user should consider using a SharePoint list instead. Any list can be exported to Excel for further analysis and calculation.

Libraries are useful when the information is stored in a file such as a document, presentation or picture. The file is uploaded into the library and organized using columns, views and folders. A library can contain almost any type of file; however, there are some restrictions on the file types for security reasons.



Picture 3. Screenshot of Nokia Gear Mechanics' SharePoint workspace.

Nokia Gear Mechanics and UI & UX have distributed libraries and lists in different categories. Those libraries are located on the left side pane. (Picture 3.)

At the top is Virtual Forum which contains all general virtual forum documents, in Virtual Forum Task should be placed Task Reports. Virtual Forum Task Calendar is Nokia Gear Mechanics internal calendar where team members can arrange common meetings. In the Preconceiving library team members should store all the mechanics' preconceiving presentations. The Competence Development library includes published white papers, technology presentations

and supplier capability presentations. In the Process Instructions library are Mechanics' internal process instructions and in the Datasheet library contains material datasheets which are used in Nokia Gear projects. Virtual Forum Meeting Minutes includes Agenda, Meeting Minutes and Action Point which are used as Nokia Gear Mechanics meeting templates. These features created by SharePoint developers. Three final libraries are Supplier Feedback, Nokia Gear Mechanics Survey and Training Material. In Supplier Feedback a survey can be made for Nokia Gear Mechanics' suppliers where they can give feedback on co-operation and common projects for example. Nokia Gear Mechanics Survey is for Mechanics' internal use only where every team member can give feedback to an uploaded Excel document. Training material includes all Mechanics related training materials.

Custom List

Creating a custom list is similar than creating a default list, but a user can customize the list from scratch. After creating a custom list, it is possible to add columns to suit the purpose of list. Custom lists are used as any other lists, fulfilling the creator's and users' requirements. Nokia Gear Mechanics have required that there should be a template for meetings.



Picture 4. Meeting Minutes template, which contains Agenda, Meeting Minutes and Action Points

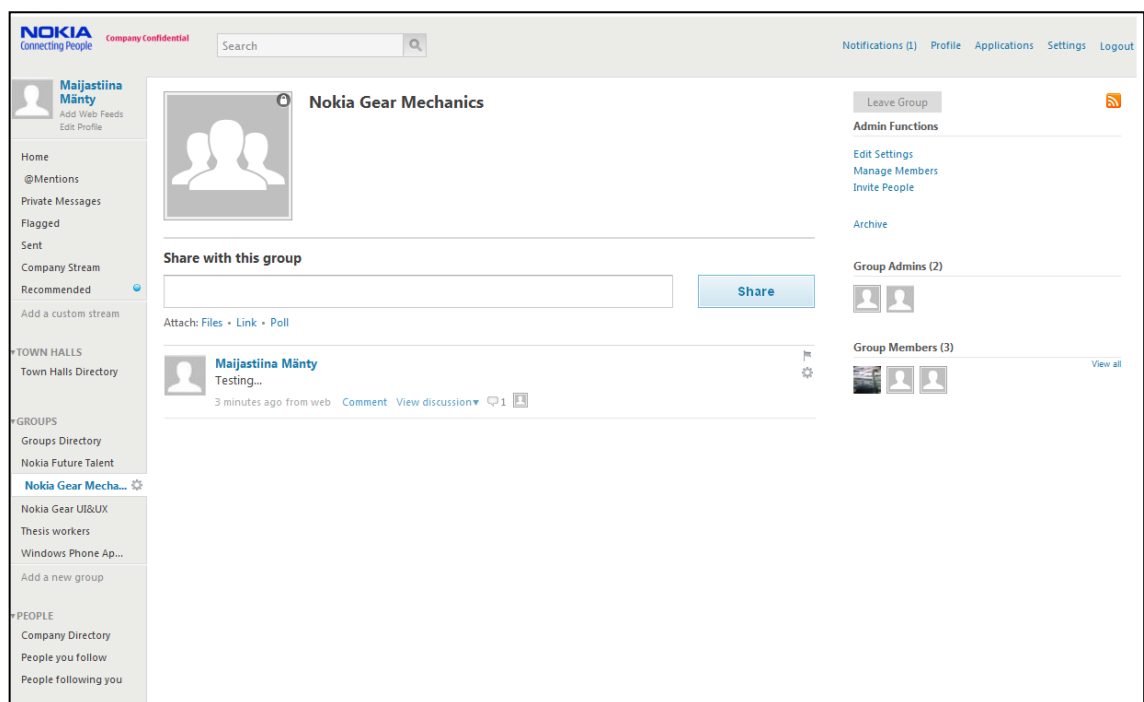
Lists called Agenda, Meeting Minutes and Action Points (Picture 4.) are made by using custom lists, so all the customizations were possible to establish. (Tieturi 2011)

4.2 Socialcast

Socialcast is Nokia's internal microblogging discussion platform which connects people, data and applications in real-time.

4.2.1 Integrating Socialcast with SharePoint and Streams

It is possible to make integration between Socialcast and SharePoint. This kind of integration decreases the number of emails and helps employees to keep on track of projects for example. According to Nokia Gear's requirements, this kind of integration was made in to their workspace in SharePoint. The Socialcast WebPart, **Socialcast Reach**, was developed to SharePoint and linked to their Socialcast private group. (Picture 5.)



Picture 5. Nokia Gear Mechanics' private group. Nokia Gear UI & UX have their own private group.

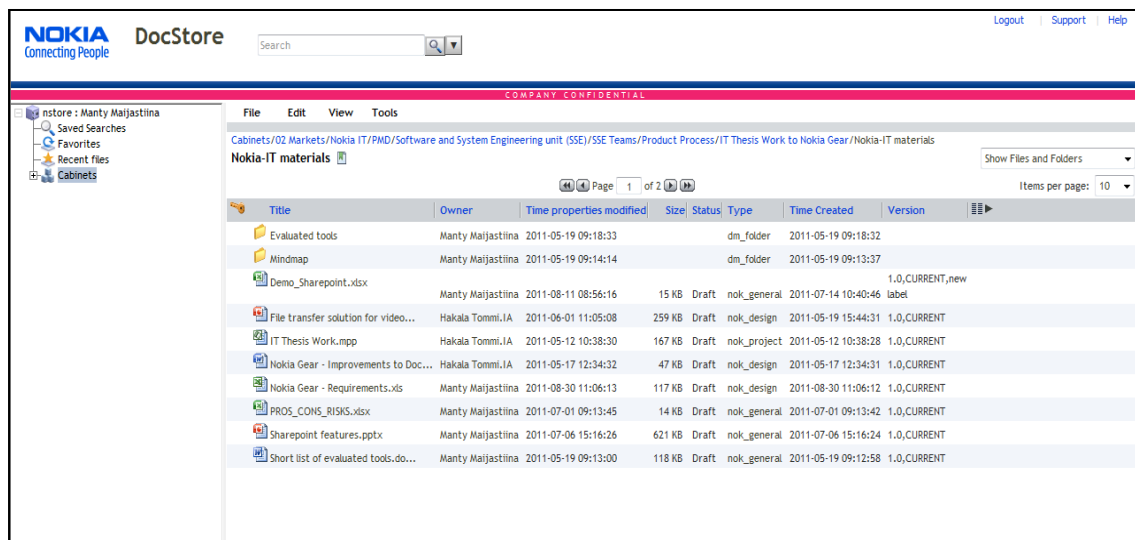
Streams

An activity stream is a grouping of real-time information streaming from the Nokia community. It consists of messages, and questions made by other users. It can also contain links to external or uploaded videos, photos, files and images. It is also possible to import information from external sources (e.g. Twitter, Flickr, RSS streams). There are also different kind of streams like Home Stream, @Mention Stream, Flagged Stream, Sent Stream, Company Stream,

Recommended Stream and Custom Stream. Streams give quick access to the messages which the user may find interesting.

4.3 DocStore

DocStore is a document management system which is used for collecting, saving, sharing, protecting and storing all kind of data and documents Nokia wide (Picture 6.)



Picture 6. User Interface of DocStore

Saving documents into DocStore is simple due to the automated property and security inheritance. Nokia Gear Mechanics would use DocStore as a system for official documents like contracts between Nokia and suppliers and documents which are the most confidential. Suppliers should have different access-levels to DocStore. (Nokia Intranet 2011).

Accounts, User Types and Security Roles

All active Nokia employees have a DocStore account by default.

In addition to having a DocStore account, a user must be separately given access to needed items like documents and folders to be able to work with them.

Group Management System (GMS)

DocStore does not have its own (Documentum based) groups management but it is integrated to Nokia's centralized system, GMS.

The integration enables retrieving groups that already exist in GMS to be used in DocStore as part of setting objects' security.

Metadata

Metadata is data about data. (Oxford English Dictionary). For a document this is like it's Creator, Owner, Title, Time Modified and any other information which can usefully be associated with it.

Searches

DocStore Search is based on Nokia Intranet search (Autonomy search engine) which is configured for DocStore's needs.

The Simple Search relies on context indexing meaning that currently the search criteria focuses on a document's content only (not property values such as Owner or Time modified).

Advanced Search defines search criteria in a much more detailed level than in Simple Search. Advanced Search is mainly property oriented, however, the "Contains" free text field equals to the previously introduced Simple Search. This feature allows a user to combine property based search with looking for items based on their content.

Requests

DocStore offers the possibility to send workflow requests regarding more than one document at a time. Such request is conducted exactly the same way as one with single document.

The same request notification is sent to all workflow participants and all of them must complete the task before the document status changes.

Document STATUS changes to

- PROPOSED, if all reviewers have accepted the document.
- APPROVED, if all approvers have approved the document.
- REJECTED, if one of the approvers have rejected the document.
- REJECTED, if one of the reviewers have declined the document.

When a document review/approval is declined/rejected the request is terminated and a cancellation notification in addition to the actual task completion notification is sent to the requestor.

Document Expiration

In DocStore document's expiration time depends on its status and type.

A draft document's expiration is determined by the document's creation (= import) time. In practice a document in draft status by default expires exactly after two (2) years from its creation.

This however, is only the default situation. If needed a document's expiration time can be manually modified via the document's properties either during or after import.

The current expiration time for all documents in Approved status is 1st January, 3000, which in practice means that approved documents never expire.

Collaborators

For the most part Collaborator access of DocStore is very similar to the internal use.

The main difference is that a Collaborator can only work with those folders and documents that he has separately been given access to. All other objects in the system are not visible. Also a Collaborator has some limitations to features to be used and metadata to be seen.

5 OVERVIEW AND EVALUATION

The target of this thesis was to develop clear, simplified and efficient document management practices to Nokia Gear Mechanics and Nokia Gear UI & UX competence areas.

Self-studying played a major role in e.g searching relevant solutions for document management. I tested different systems and marked positive and negative features of them and finally gave a demonstration of each of the system. Team members chose the most feasible ones and I started to study them more deeply.

I modified the Nokia SharePoint templates and I made necessary adjustments to Sharepoint, Socialcast, DocStore and the folders on the network drives so that they could be taken into use. I also prepared learning material for the systems and held training sessions for the Finnish and Chinese team members.

As a result of this project, new document management practices were taken in use in Nokia Gear Mechanics and UI & UX

Nokia Gear Mechanics and UI & UX were satisfied for the result and they actively use the implemented systems. Representatives of Nokia Gear Mechanics and UI & UX and my superior evaluated my work during the project. Reaching the goal, benefit for the client and knowledge and conclusions were excellent.

Nokia Gear Mechanics and Nokia Gear UI & UX can improve their practices for better solution. SharePoint could be updated when new versions are available. Facebook could be the way how Nokia Gear Mechanics can reach its customers and their opinions for example. Nokia Gear Mechanics could arrange some kind of competition in Facebook where anybody can participate and design supplementaries like wireless headsets for them.

REFERENCES

DocStore, Nokia Intranet,2011. September 13, 2011.

DocuVantage, 2012. What is document management?. June of 9, 2012.
<http://www.docuvantage.com/document-management-basic-tutorials/what-is-document-management>

Enterprise Content Management, 2012. Defining a Document Management System (DMS). June of 9, 2012.
<http://www.contentmanager.eu.com/dms.htm>

Microsoft SharePoint, 2011. June 10, 2012.
<http://sharepoint.microsoft.com/fi-fi/product/capabilities/Pages/default.aspx>

Microsoft SharePoint, 2012. Document management overview (SharePoint Server 2010) June of 9, 2012.
<http://technet.microsoft.com/en-us/library/cc261933.aspx>

SharePoint, Nokia Intranet,2011. September 13,2011.

Socialcast, Nokia Intranet,2011. September 13, 2011.

Socialcast, 2011. Socialcast Reach. September 13, 2011.
<http://socialcast.com/social-network-integration>

Tieturi 2011. New in SharePoint 2010 for workspace owners training material. September 13, 2011.

Wikipedia, 2012. Web Portal. June 10, 2012.
http://en.wikipedia.org/wiki/Web_portal

APPENDIXES

Biweekly report: Documentation management improvements to Nokia Gear

ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> Requirements received from Nokia Gear Requirements <u>analyzed</u> Verified that all identified requirements exist and have been documented Verified that all requirements are understood as they have meant to be Different document management systems preliminary investigated Identified list of possible tools which might fulfil the needs → long-list of tools created → tool contacts found, documentations received <u>Analyzed</u> tools against the requirements Access rights to Nokia Gear tools received 	<ul style="list-style-type: none"> Starting systematic tool testing → short-list of tools Possible deeper analyzing focusing on short-list of tools
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<ul style="list-style-type: none"> No identified 	Risks: <ul style="list-style-type: none"> Employees' consultations in Nokia Gear → impact to the project?

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> Systematic tool-testing started, not all tools tested yet Sharepoint might be the best choice. It fulfills almost every already identified requirements Network drive ordered and delivered → high-level folders created → access-right groups created and IT Service Desk asked to link groups to folders → documentation creation started 	<ul style="list-style-type: none"> Systematic tool testing ended → short-list of tools Possible deeper analyzing focusing on short-list of tools Internal demo about network drive usage Possible testing of network drive use with Company A Possible testing of network drive use with Company B, if network connection exists
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<ul style="list-style-type: none"> No identified 	Risks: <ul style="list-style-type: none"> Employees' consultations in Nokia Gear → impact to the project? Network connection between Company B and Nokia Extranet unknown

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> Systematic tool-testing started, not all tools tested yet Sharepoint might be the best choice. It fulfils almost every already identified requirements Network drive ordered and delivered <ul style="list-style-type: none"> → high-level folders created → access-right groups created and are replaced → documentation creation started 	<ul style="list-style-type: none"> Systematic tool testing ended → short-list of tools Possible deeper analyzing focusing on short-list of tools Internal demo about network drive usage Possible testing of network drive use with Company A Company B site assessment started Establishing network connection between Company B and Nokia Extranet started
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> Establishing network connection between Nokia and Company B has started 	<p>Risks:</p> <ul style="list-style-type: none"> Employees' consultations in Nokia Gear → impact to the project? <p>Challenges:</p> <ul style="list-style-type: none"> Network connection between Company B and Nokia Extranet does not exist and might take some time to be created IT Support in Company B is outsourced to external company (Company C) Limiting a visibility between different supplier companies in Nokia Extranet → several workarounds identified

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> Systematic tool-testing started, not all tools tested yet Sharepoint might be the best choice. It fulfils almost every already identified requirements Network drive ordered and delivered <ul style="list-style-type: none"> → high-level supplier folders created → access-right groups created and are in place → documentation creation started It has been agreed that a site-to-site VPN connection will be installed in order to enable Company B to access Nokia Extranet from their premises Discussion about Sharepoint features with Sharepoint Support 	<ul style="list-style-type: none"> Systematic tool testing ended → short-list of tools Possible deeper analyzing focusing on short-list of tools Internal demo about network drive usage Possible testing of network drive use with Company A. Establishing a network connection between Company B and Nokia Extranet started As "Company B" should be listed as an official Nokia collaborator in database → the need has to be clarified with the business responsible person Discussion about Sharepoint features with Sharepoint Support will be continued
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> Establishing network connection between Nokia and Company B has started Company B site assessment started, probably time assuming 	<p>Risks:</p> <ul style="list-style-type: none"> Employees' consultations in Nokia Gear → impact to the project? <p>Challenges:</p> <ul style="list-style-type: none"> Network connection between Company B and Nokia Extranet does not exist and might take some time to be created IT Support in Company B is outsourced to external company (Company C) Limiting a visibility between different supplier companies in Nokia Extranet → several workarounds identified Resourcing, commitment and roles/responsibilities probably unclear within Company B

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> • Systematic tool-testing started, not all tools tested yet • Sharepoint might be the best choice. It fulfils almost every already identified requirements • A site-to-site VPN connection is installed in order to enable Company B to access Nokia Extranet from their premises • Active solution investigation with SharePoint developers • Testing of network drive use with Company A. Passed • Internal demo about network drive usage • A network connection between Company B and Nokia Extranet created • Company B site assessment done for CM0 organization on year of 2006-2007. Documentation exists. 	<ul style="list-style-type: none"> • Systematic tool testing ended → short-list of tools • Possible deeper analyzing focusing on short-list of tools • Discussion about Sharepoint features with Sharepoint Developers will be continued • Showing demos of document management tools to Nokia Gear • Deciding with Nokia Gear, what should be the optional document management tools and focusing on those during the summer
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> • A network connection between Nokia and Company B is created 	<p>Risks:</p> <ul style="list-style-type: none"> • Employees' consultations in Nokia Gear → impact to the project? → Any clarification already? <p>Challenges:</p> <ul style="list-style-type: none"> • IT support in Lotus Notes tools is outsourced

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> • Decision done with Nokia Gear, what are the selected documentation management tools where to focus on. • Systematic tool testing ended → short-list of tools • Focused on tools which are short-listed • Features implemented to Sharepoint and Socialcast which are fulfilling Nokia Gear's requirements. • Active feature implementation continues with SharePoint developers • Network connection from Company B to Nokia Network established and tested. Passed. 	<ul style="list-style-type: none"> • Closing one remaining open item with Sharepoint Developers. • Showing demos of document management tools to Nokia Gear → Expectation which tools are selected to be in a scope of deployment • Update existing documentation concerning shared network drive use with suppliers
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> • Demo versions of tools are made against Nokia Gear's requirements 	<p>Risks:</p> <ul style="list-style-type: none"> • Employees' consultations will start during September in Nokia-IT → impact to the project unknown

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ACHIEVEMENTS (past 1 week)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> • Study of Skype and Lync co-operation started. Background information gathered. • Trusted Person from Company B nominated. Practicalities started. • One remaining open item with Sharepoint Developers closed. • Demo of Sharepoint, DocStore, and Socialcast done. 	<ul style="list-style-type: none"> • Waiting for decision from Nokia Gear: which tools are selected to be in a scope of deployment • Update existing documentation concerning shared network drive use with suppliers • Short briefing of Skype and Lync usage in our environment • Short introduction of OneNote • Trying to locate person with CAD competences for another project • Required training to Trusted Person will be provided
DEVIATIONS & KEY ISSUES (past 1 week)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> • Waiting for decision from Nokia Gear: which tools are selected to be in a scope of deployment 	<p>Risks:</p> <ul style="list-style-type: none"> • Employees' consultations will start during September in Nokia-IT → impact to the project unknown

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> • Document management tools (Sharepoint, DocStore, Socialcast, Network Drive) are selected by Nokia Gear • Short briefing of Skype and Lync usage in our environment done • Short introduction of OneNote done • Contact information of a person with CAD competences for another project delivered • Nokia IT can not provide resource to the CAD-project • New requirements documented 	<ul style="list-style-type: none"> • Update existing documentation concerning shared network drive use with suppliers • Required training to Trusted Person will be provided (13-Sep-2011) • Waiting for a decision from Nokia Gear: What would be the DocStore's folder structure • Waiting for a decision from Nokia Gear: What would be the structure of Sharepoint workspace • Maijastiina's Sharepoint training (17-18th of Oct 2011) • Sharepoint workspace customization continues
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> • Waiting for a decision from Nokia Gear: What would be the DocStore's folder structure • Waiting for a decision from Nokia Gear: What would be the structure of Sharepoint workspace 	<p>Risks:</p> <ul style="list-style-type: none"> • Employees' consultations will start during September in Nokia IT → impact to the project unknown • Forthcoming organizational change within Nokia IT

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> Required training to Trusted Person provided (13-Sep-2011) 	<ul style="list-style-type: none"> Update existing documentation concerning shared network drive use with suppliers Waiting for a decision from Nokia Gear: What would be the DocStore's folder structure Waiting for a decision from Nokia Gear: What would be the structure of Sharepoint workspace Maijastiina's Sharepoint training (17-18th of Oct 2011) Sharepoint workspace customization continues Making documentation concerning Sharepoint, DocStore, Socialcast use
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> Waiting for a decision from Nokia Gear: What would be the DocStore's folder structure Waiting for a decision from Nokia Gear: What would be the structure of Sharepoint workspace 	<p>Risks:</p> <ul style="list-style-type: none"> Forthcoming organizational change within Nokia IT Is current work load in Nokia Gear decreasing a speed of project?

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> Meeting Minutes migration done in Sharepoint workspace Documentation concerning Sharepoint, DocStore, Socialcast use started First customization changes made in Sharepoint workspace by request from Nokia Gear 	<ul style="list-style-type: none"> Update existing documentation concerning shared network drive use with suppliers Active discussions ongoing within Nokia Gear: What would be the DocStore's folder structure Active discussions ongoing within Nokia Gear: What would be the structure of Sharepoint workspace Maijastiina's Sharepoint training (17-18th of Oct 2011) Sharepoint workspace customization continues Making documentation concerning Sharepoint, DocStore, Socialcast continues Finding out what Sharepoint workspace(s) costs Waiting for decision according Sharepoint workspaces → Two separated workspaces or one workspace including two sites? → Should be done two separated Socialcast discussion boards Permission levels in Sharepoint workspace will be given to workspace users
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> Active discussions ongoing within Nokia Gear: What would be the DocStore's folder structure Active discussions ongoing within Nokia Gear: What would be the structure of Sharepoint workspace Waiting for decision according Sharepoint workspaces → Two separated workspaces or one workspace including two sites? 	<p>Risks:</p> <ul style="list-style-type: none"> Forthcoming organizational change within Nokia IT Consultations negotiations started in Nokia IT

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> Documentation concerning Sharepoint, DocStore, Socialcast use continues Training of GMS-groups held to person A and materials can be found in DocStore First changes made in DocStore concerning folder structure First changes made in SharePoint concerning folder structure Majjastiina's SharePoint training has kept (17-18th of Oct 2011) Sharepoint workspace(s) costs found out and informed to Nokia Gear Nokia Gear has decided to keep one workspace and make two subsites to SharePoint (Nokia Gear Mechanics and UI&UX) Socialcast's integrated discussion board ordered to UI&UX 	<ul style="list-style-type: none"> Active discussions ongoing within Nokia Gear: What would be the DocStore's folder structure? Active discussions ongoing within Nokia Gear: What would be the structure of Sharepoint workspace? Sharepoint workspace customization continues Making documentation concerning Sharepoint, DocStore, Socialcast continues Nokia Gear would give the structure of permission levels → who should have permissions to SharePoint workspace? Permission levels in Sharepoint workspace will be given to workspace users
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> Active discussions ongoing within Nokia Gear: What would be the DocStore's folder structure? Active discussions ongoing within Nokia Gear: What would be the structure of Sharepoint workspace? Nokia Gear would give the structure of permission levels → who should have permissions to SharePoint workspace? 	<p>Risks:</p> <ul style="list-style-type: none"> Forthcoming organizational changes within Nokia ICM → Impact minimal Consultations negotiations on-going in Nokia ICM → Impact unknown

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> Documentation concerning Sharepoint, DocStore, Socialcast use continues Sharepoint workspace(s) costs found out and informed to Nokia Gear. Discussion continues. A problem concerning URL: http://in.nokia.com/sites/majjasworkspace should change to http://in.nokia.com/sites/NokiaGearMechanics for example. Discussion with SharePoint Support → would it be better to change the URL to short URL or take a backup of workspace and relocate it? → Would Nokia Gear Mechanics have one workspace and make two subsites to SharePoint (Nokia Gear Mechanics and UI&UX)? SharePoint's and DocStore's permissions levels received from person A → Asked from person B about the Nokia Gear's GMS-groups. 	<ul style="list-style-type: none"> Active discussions ongoing within Nokia Gear: What would be the DocStore's folder structure? Active discussions ongoing within Nokia Gear: What would be the structure of Sharepoint workspace? Sharepoint workspace customization continues Making documentation concerning Sharepoint, DocStore, Socialcast continues Permission levels in Sharepoint workspace will be given to workspace users
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> Active discussions ongoing within Nokia Gear: What would be the DocStore's folder structure? Active discussions ongoing within Nokia Gear: What would be the structure of Sharepoint workspace? Would Nokia Gear Mechanics have one workspace and make two subsites to SharePoint (Nokia Gear Mechanics and UI&UX)? 	<p>Risks:</p> <ul style="list-style-type: none"> Forthcoming organizational changes within Nokia ICM → Impact minimal Consultations negotiations on-going in Nokia ICM → Impact unknown

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ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> • Socialcast instructions sent for review to Nokia Gear Mechanics. • Sharepoint workspace(s) costs found out and informed to Nokia Gear. Setup stays as it is. • Permissions for users/GMS-groups have given to SharePoint and DocStore. • Nokia Gear Mechanics would like to have one workspace and two subsites (Nokia Gear Mechanics and UI&UX) to SharePoint. • All trainings in Finland concerning on SharePoint´s and DocStore´s usage has held. • SharePoint´s and DocStore´s customizations are freed. 	<ul style="list-style-type: none"> • Making documentation concerning Sharepoint and DocStore continues. <ul style="list-style-type: none"> • Internal review between Maija & Tommi. • Available for Nokia Gear Mechanics to review. • Nokia Gear Mechanics comments delivered. • Would DocStore and SharePoint trainings rearrange to Beijing? • A problem concernign URL: http://in.nokia.com/sites/majjasworkspace should change to http://in.nokia.com/sites/NokiaGearMechanics. Discussion with SharePoint Support→Short URL is not working properly → Suggested to take a backup of workspace and relocate it.
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
<p>Key issues:</p> <ul style="list-style-type: none"> • Would DocStore and SharePoint trainings rearrange to Beijing? 	

Final report: Documentation management improvements to Nokia Gear

ACHIEVEMENTS (past 2 weeks)	NEXT STEPS (next 2 weeks)
<ul style="list-style-type: none"> • SharePoint, DocStore and Socialcast instructions saved to DocStore • Permissions for users/GMS-groups have given to SharePoint, DocStore and Socialcast • All trainings in Finland and Beijing concerning on SharePoint´s and DocStore´s usage has held. • URL: http://in.nokia.com/sites/Majjasworkspace is changed to http://in.nokia.com/sites/NokiaGearMechanics. • Workspaces of SharePoint, DocStore and Socialcast are completed with customizations. • Thesis work handed over to Nokia Gear with improvements. 	-
DEVIATIONS & KEY ISSUES (past 2 weeks)	CHALLENGES & RISKS (next 2 weeks)
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