

Marko Jäntti

Challenges in Implementing IT Service Management Systems

ICONS 2012 Conference



Agenda

- Introduction
- Research Settings
- Challenges in Implementing IT Service Management Systems
- Conclusion

1. Introduction

Location of University of Eastern Finland

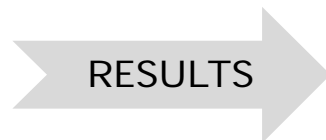


Kuopio and Joensuu



1. Introduction

- Keys to IT Service Management and Effective Transition of Services (KISMET) is a research project funded by TEKES ERDF and industrial partners.
- The goal of the KISMET is to
 1. Examine the transition of IT services and service management processes
 2. Enhance the knowledge sharing on IT service management procedures, methods and concepts both in IT service provider organizations and IT customer organizations
 3. Provide organizations a discussion forum to share experiences in IT service management



Process descriptions Master's theses Research papers
Templates for ITSM records Reports Metrics
ITSM workshops and trainings

1. Introduction

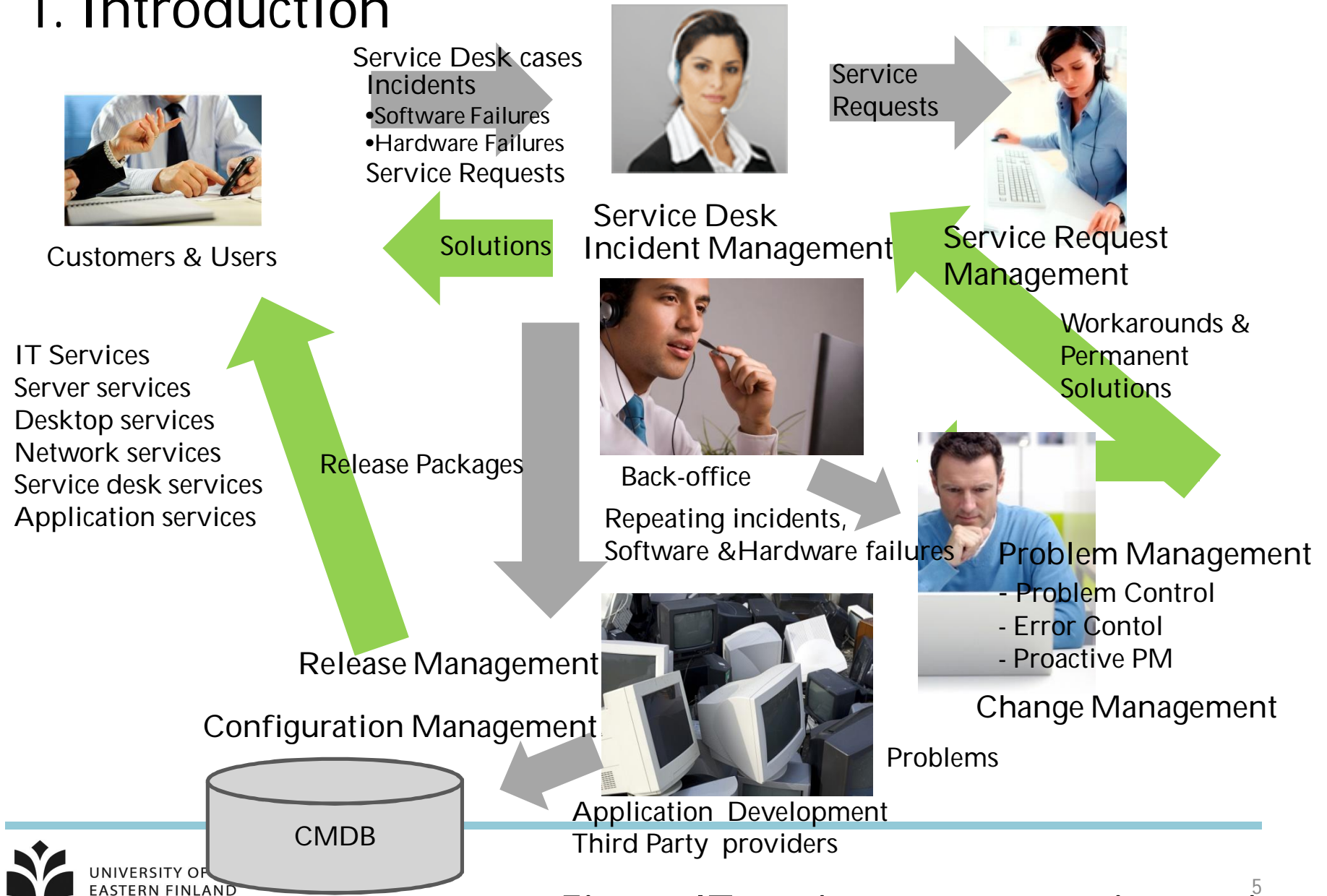
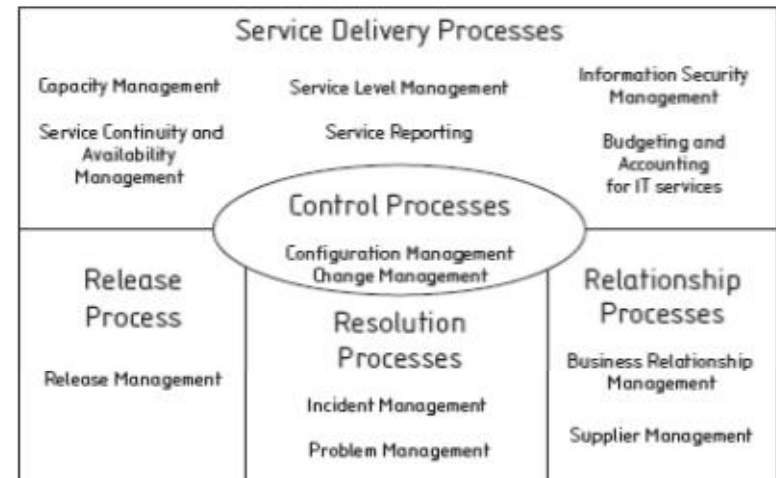


Figure: IT service management in practice ⁵

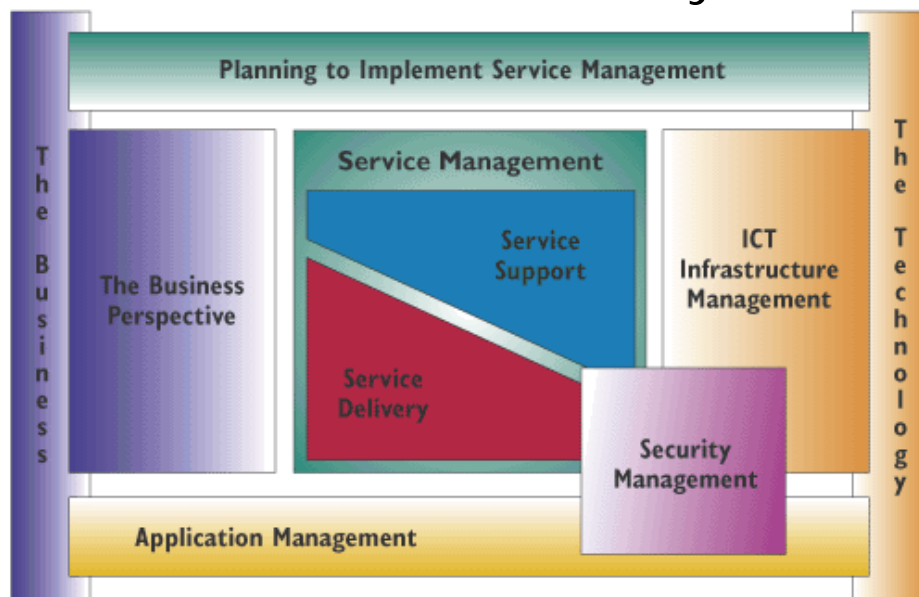
1. Introduction

- Many IT service provider organizations have difficulties in implementing IT service management processes
- Expected benefits: cost savings €€€€€ in IT support, increased customer satisfaction, faster resolution of requests, more customers due to certified processes

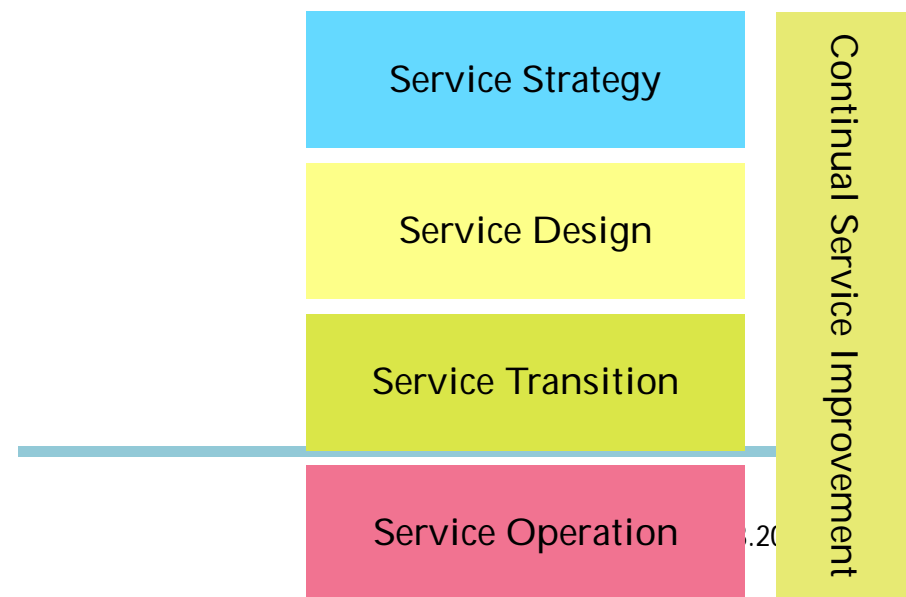
ISO/IEC 20 000



IT Infrastructure Library v2

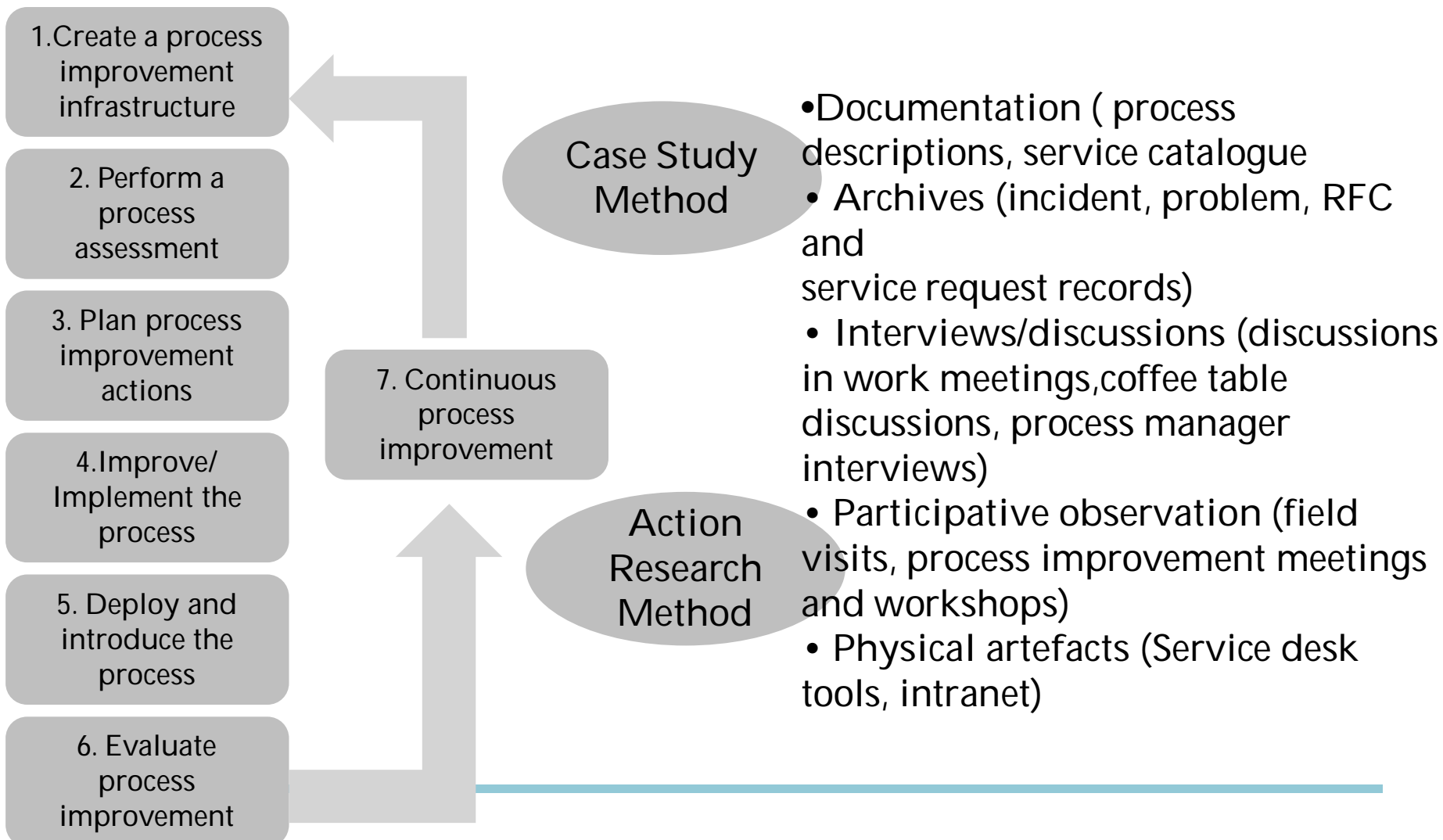


IT Infrastructure Library v3



2. Research Methods

Keys to IT Service Management Excellence Technique (KISMET) model



3. Challenges in Implementing IT Service Management Systems

- Three case studies on Implementing IT Service Management Systems
 - Tieto Finland, Energy
 - Finnish Tax Administration
 - Istekki
- Case organizations are members of the KISMET project

3.1. Tieto Finland, Energy



- Case type: IT service provider
- Number of employees: 17000 in Tieto Corporation
- Improvement target:
 - Incident & Release management
 - Service level management
- Core business:
 - Provide customer data management and billing solutions for energy companies



3.1.1. IT service management tool

The screenshot shows a software window for editing a case. The title bar reads "Edit case - 151324, Te sis - Viitesuoritusten purku keskeytyi". The window contains several fields and tabs:


- Use case:** A dropdown menu set to "All cases".
- Tabs:** Identification, Details, Change order, Testing, Delivery, Open cases, Attachments, Related cases.
- Case id:** 151324
- *Status:** Waiting for handling
- *Title:** Te sis - Viitesuoritusten purku keskeytyi
- Customer:** TietoEnator Forest & Energy Oy
- *Found by:** Tanskanen Kirsi
- *Type:** Problem
- Priority:** 1 - Urgent
- *Product:** Forum
- Component:** Maksunvalvonta
- Version:** FO - 5.2
- Description:** Erätyö keskeytyi.
Lokilla virheilmoitus :cannot find fbee_n
ajotunniste:8762854183
- Solution:** (Empty text area)

At the bottom, there is a table with columns: Act. date/time, Action, Done by, Assigned to, Status, CWI access, Actio... The table is currently empty. To the right of the table are buttons for "Edit..." and "Delete".

At the very bottom of the window are navigation buttons: "Action", "Case", "Save", "Close", and "Help".

3.1.2 Challenges

- Priorization of incidents does not work
- Lack of Service Level Agreements
- Information sharing on delayed incident resolutions
- High number of open incidents
- Poor transparency of the second-line support and the third-line support activities



We don't have enough resources to fix all the open cases. Could a customer prioritize cases?

How to provide customers more detailed information about the progress of the resolution?

3.1.3. Solutions

Service levels for service requests		
Priority	Reaction time	Resolution time
Critical		
High		
Medium		
Low		

- Priorization of incidents
- Solution: Clarify rules how to use priority coding system. Discuss the priority codes with customers. Monitor that the rules are followed.
- Lack of Service Level Agreements
- Solution: Implement SLA rules and conduct a SLA pilot with one customer

Reaction time rules

Vasteikasäännöt:

Rule name	Nimi	Status	Tila	Reaction time	Vasteaika
SR Prio 1		Avoin, Odottaa käsittelyä, Avoin (uudelleenavaus), ...		3 päivää	
SR Prio 2		Avoin, Avoin (uudelleenavaus), Prosessissa, SR an...		5 päivää	Days
SR Prio 3		Avoin, Avoin (uudelleenavaus), Prosessissa, Vasta...		14 päivää	

Example: Priority Level
Med. reaction time

- SLA Warning alert 3 hours
- SLA Breach alert 4 hours

3.2. Finnish Tax Administration



- Case type: Government agency
- Number of employees: 5700
- Improvement target:
 - Service desk and incident management
 - Problem management
- Core business:
 - We will ensure the tax revenue by providing proactive guidance and good service as well as by conducting credible tax control.
 - Our customers can contribute to their tax issues with as little cost and inconvenience as possible.



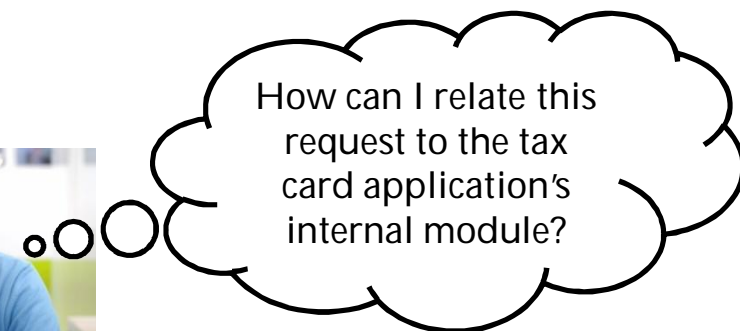
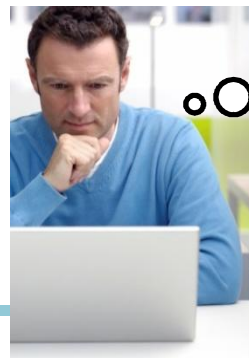
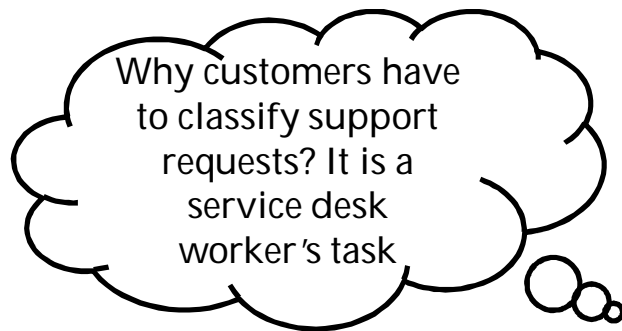
3.2.1. IT service management tool

The screenshot shows a web-based IT service management tool interface. The interface is divided into several sections:

- Customer:** A search field with the text "Asiakas" and a dropdown menu showing "Jokela, Kristo".
- Service:** A search field with the text "Palvelu" and a dropdown menu showing "Tukipyyntö.Puhelin.Mui".
- Contact channel:** A dropdown menu with the text "Yhteydenottotapa" and a selected option "Palveluliittymä".
- Reason for contact:** A dropdown menu with the text "Yhteydenoton syy" and a selected option "Neuvonta (Palvelupyyntö)".
- Reported by:** A section with a dropdown menu showing "Raportoiija" and a selected option "Jäntti, Marko".
- Call back time:** A section with a dropdown menu showing "Tukipiiri" and a selected option "Kuopio (Kuopion tukipiiri)".
- Status:** A dropdown menu with the text "Tila" and a list of options: "10 - Uusi", "20 - Käsitellyssä", "30 - Odottaa asiakkaan toimenpiteitä", "35 - Odottaa toimittejan toimenpiteitä", "38 - Odottaa sisäistä toimenpidettä", "40 - Kommentti vastaanotettu", "50 - Osatehtäviä työn alla", "70 - Tiedoksi", "80 - Ratkeistu", "90 - Suljettu".
- Group:** A dropdown menu with the text "Ryhmä" and a selected option "KTUKI Palvelupiste".
- Closure code:** A dropdown menu with the text "Sulkukoodi" and a selected option "Vastattu asiakkaalle".
- Failure start time:** A text input field with the text "Katkoksen alkamisaika".
- Failure end time:** A text input field with the text "Katkoksen päättymisaika".
- Summary:** A section with the text "Tiivistelmä" and a text area containing "Miten softa-puhelimesta saa näkyviin vastattujen puheluiden numerot jälkikäteen?".
- Description:** A section with the text "Kuvaus" and a text area containing "Hei. Miten softa-puhelimesta saa näkyviin vastattujen puheluiden numerot jälkikäteen? Soittajaluettelo on tyhjä, vaikka vastattuja puheluita on."

3.2.2. Challenges

- Lack of Configuration Management Database (CMDB).
- Classification of support requests difficult for customers
- The interface between incident management and problem management
- Identification of repeating incidents from the service desk system.



3.2.3 Solutions

- Lack of Configuration Management Database (CMDB).
- Solution: Create classification schema for configuration items. Validate classification with real service desk cases.

Family: Application – Class: Tax application – Name: Tax card in web

The image shows a screenshot of a configuration management interface with three panels. The first panel, labeled 'Name', has an empty text box. The second panel, labeled 'Class', has a text box containing 'Workstation'. The third panel, labeled 'Family', has a text box containing 'Hardware.W'. Below the 'Name' panel are fields for 'Serial Number' (empty), 'Asset?' (dropdown menu with 'NO' selected), and 'Notes' and 'Spelling' buttons. Below the 'Class' panel are fields for 'All CI-ID' (empty), 'CI?' (dropdown menu with 'YES' selected), and a 'Spelling' button. Below the 'Family' panel is a field for 'Host Name' (empty).

3.2.2. Solutions

- Interface between incident management and problem management + Identification of repeating incidents
- Solution: Design and deploy the problem record.

Logged in as: Heikkinen, Paula (Log Out) (Close Window)

File View Activities Search Window Help

Create New Problem 6134

Save Create Change Order Cancel Reset Quick Profile Use Template

Affected End User* Problem Area Status Priority*

Heikkinen, Paula 120 Sovellukset ja tuki 10 - New 1 - Critical

Detail

Reported By Heikkinen, Paula

Assignee Heikkinen, Paula

Group PALVELUI_Managerit

Configuration Item ASI

Severity <empty>

Urgency 5-Immediate

Impact 3-Single Group

Active? YES

Charge Back ID

Call Back Date/Time <empty>

Closure Code

Change

Caused by Change Order

Summary Information

Summary Spelling

Sovellus YTJ ei aukea, tulee ilmoitus "cxdx yyy" Total Activity Time 00:00:00

Description Spelling Search Knowledge

Sovellus YTJ ei aukea, tulee ilmoitus "cxdx yyy" (created from Incident HI6132) Timer 00:05:41

Incident
Incident
Incident
Incident

Change in program code needed?

Request for Change

Details about problem/defect



3.3. Istekki

Customers of Istekki

- Case type: IT service provider
- Number of employees: 170
- Improvement target:
 - Incident management
 - Change management
- Core business:
 - ICT services (IT maintenance and support services, server and data center services, network and telecommunication services, ICT acquisition services, IT consulting, project and introduction services)
 - Healthcare technology services

Kuopio City

Culture and freetime
Technical
infrastructure

Northern Savo
Healthcare
District

Healthcare
application
services
Emergency center
information
systems

3.3.1. IT service management tool

Customer

User

Organization

Service request

Title

Description

Class

Impact

Status

Group

Palvelupyynnön ylläpito
Update Service Request

Perustiedot

Mallipalvelupyyntö:

Lisätiedot

akas

Yrittäjä: Maria Lyytinen Tiedot» Vaihda»

Organisaatio: 12203 KIRURGIAN OSASTO 3/ TRAUMATOLOGIA Vaihda»

Palvelupyyntö

Otsikko *:

Kuvaus *:

Monivarauksen siirto keskeytyy ajanvarauksen yhteenveto -ikkunassa ilmoitukseen: Tilaava yksikkö on pakollinen tieto, tietoa ei kuitenkaan pääse täydentämään.

Jonon hallinta

Luokka * ▶ Hairio *Incident*

Ärkeys * ▶ Työntekoa häittävä *Interrupts work*

Tila * ▶ Käsittelyssä *Work in progress*

Yöjono * ▶ Sovellusten häiriöt *Application failure*

Lisätty: tainen_s 4.9.2009 11:34

Päivitetty: tainen_s 4.9.2009 12:12

Koistoiminnot

Seuraa palvelupyynnön käsittelyä

Kohdisteet

Kohdistelaji ▶

Valitut kohdisteet

Kohdiste

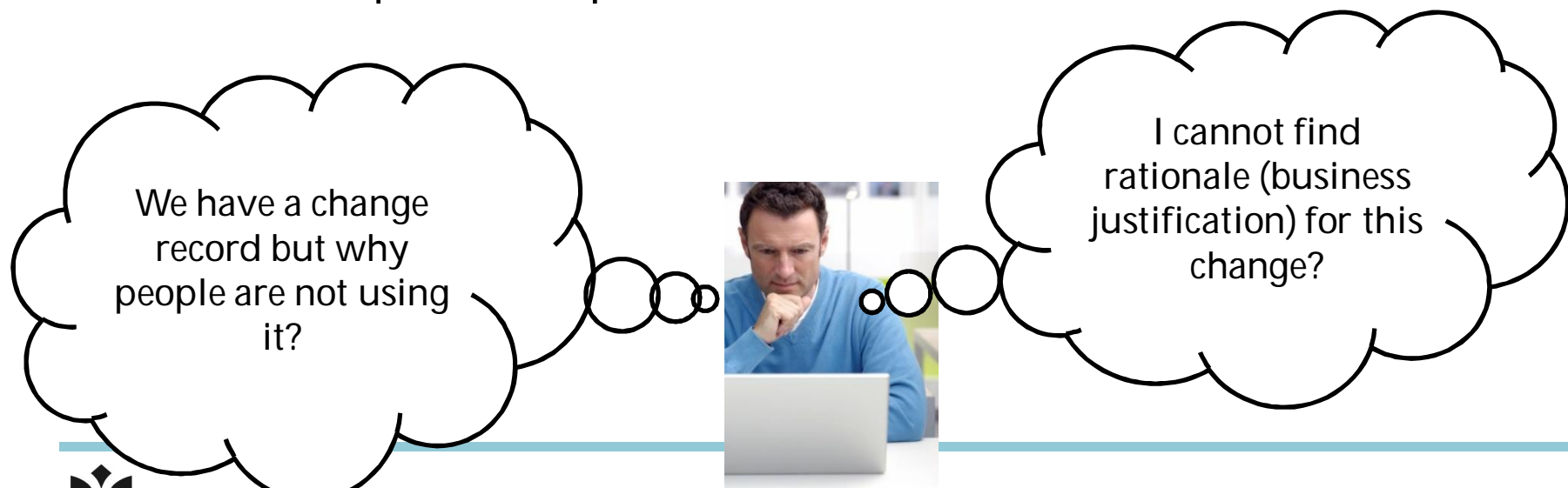
MD-Oberon

CI type

Configuration items

3.3.2. Challenges

- No reports implemented for change management
- Evaluation of changes is not visible
- Incidents may remain unresolved for several months
- Employees do not understand the difference between incidents, service requests and problems



3.3.3. Solutions

- No reports implemented for change management
- Solution: Implement the following change management reports
 - Number of change requests (by service area)
 - Number of major changes
 - Change throughput time
- Evaluation of changes is not visible
- Solution: Add new datafields to the change record in the ITSM tool
 - Reason for change as a separate field
 - Post-implementation review of change

4. Conclusion

- Lessons learnt from three cases:
 - Use real examples in ITSM trainings Collect 10 concrete examples of each ITIL concept (incident, service request, problem, RFC)
 - Classification: Pay attention to classification of support requests
 - Service area: Application services
 - Configuration item: Application – Tax applications - Tax card in web
 - Support request type: Incident
 - Proactive support: Aim at proactive IT service support (problem management is the key) instead of reactive one
 - Priorization: Check whether priority rules are followed on 1st, 2nd and 3rd support levels and prepare for SLAs

Thank you!!!

Questions, comments?

Marko Jäntti, PhD.

(marko.jantti@uef.fi)

School of Computing,
Kuopio campus

Software Engineering Research
Unit, KISMET project



UNIVERSITY OF
EASTERN FINLAND

www.uef.fi