

Implementing Service Management Processes with Service-Now

Zhechka Toteva

CERN/IT-Computing Facilities

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- Motivation for change
- Current production state
- Work in progress
- Future development
- Lessons learned



- PRMS,ITCM and HMS workflows running on Remedy for many years
- 2009 – CERN/IT studied to possibilities for an integrated service management environment
- 2009 July – Started to integrate BMC Remedy Service Desk Application + Service Level Management + Service Request Management
- 2010 January – CERN/IT and GS started to define the service catalogue, incident and request fulfilment process

- 2010 March – list of technical requirements (~300)
 - Run the service catalog, incident management and request fulfillment processes
 - WEB-based interface for end-users and support teams
 - Integrate with existing third party data sources and workflows
 - Provide for features to manage CERN specific processes in a native way
 - Ensure integration with a Knowledge Base system
- 2010 June – short-list of tools and reference visits
 - www.service-now.com - 2009 Service Desk Institute award
 - running SaaS
- 2010 October – started implementation
- **2011 February, 15th** – released in production
 - “the first client of Service-Now in Switzerland that has done so much customization in such a short period of time”

- Current Production State
 - Configuration
 - Customization
 - Development

- The minimum of configuration data needed to run a service management tool
 - People (names, coordinates, affiliations)
 - Organizational structure (organic units, support units)
 - CMDB: Locations (offices, buildings)
- **Extend** the basic configuration data structures with CERN specific properties
- **Data source** facility to provide quasi live data
 - Extract the data from the CERN databases
 - Transform them in the Service-Now format
 - Synchronize on regular basis
 - **Incremental update**

- Authentication
 - Integration with the CERN Single Sign-On (SSO) service
 - SAML v2 protocol
 - Issue with logging-out
- Authorization
 - Service-Now Role based ACL (table/field level access) and Computed ACL (record level access)
 - Derived from the roles which a person has in the service management processes
 - Has to be adapted to every new process

- Current Production State
 - Configuration
 - Customization
 - Development

- Three dimensional hierarchical service catalog that provides two perspectives to the services
 - User – Service Area (SA), Customer Service (CS), Service Element (SE)
 - Function – Organic unit, Functional Element (FE)
 - Weight of dependency of a SE on FE

1	Service Area	Service, Organization and Process Management Application Support					Services for Suppliers			Specialized Supp	
2	Customer Services	Application Support for Service Management					Services for Suppliers			Control Security Service	
3	Service Elements	Alerter Service	Process Application Support	SLA and Contract Reporting Service	Service Catalogue Application Support	Service Information Service	Service Status Service	Information for Suppliers Service	Supplier Invoice and Payment Service	Supplier Relationship Service	Control Security Service
319	SPS	SPS					SPS			SPS	
320	HIS	HIS					HIS			HIS	
321	CERN Health Insurance										
322	Social Support										
323	OP	OP					OP			OP	
324	Administrative Processes										
325	SER	SER					SER			SER	
326	Claims and Benefits										
327	Integration										
328	Leave Accounting										
329	Legal Documents and Taxes										
330	Personnel Records Office										
331	IT	IT					IT			IT	
332	CF	CF					CF			CF	
333											
334	CC Operators	C	C				C	C			
335	Datacenter Projects										
336	ELF ms										
337	Facilities Operation	B	B				B	B			
338	HW Procurement										
339	Monitoring tools	B						A			
340	Reporting			A							
341	SDB						A	B			
342	Sigs Admin	C	C				C	C			
343	Workflow support		A								
344	CS	CS					CS			CS	
345											
346	CMP										
347	Experimental NV										
348	Fixed Telephony Services										

- A data model has been created in Service-Now that accommodates the SC by **extending CMDB CIs**

Service Element

Related Items: Show 3 Levels

Depends on with impact C - Functional Elements

- GS Service Management Support
- Sys Admin
- CC Operators
- Internet Access
- Network Infrastructure Management
- Security Management
- IT Service Management Support
- Backup

Depends on with impact B - Functional Elements

- Facilities Operation
- Network Services
- General Purpose Network
- AFS
- Authentication
- Linux OS

Depends on with impact A - Functional Elements

- Service-Now
- Workflow support

Update Save Delete CI

Related Links

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In Scope (1) **Out of Scope (1)** Links Contacts Questionnaires (2) Service Offerings (1)

Out of Scope New Edit... Go to Service scope Q

▶ Out of Scope Service = Process Application Support

Service scope

Limited to IT, GS, HR and FP.

Actions on selected rows...

- Parent-child relationship between SA, CS and SE
- Many-to-many relations between FE and CMDB CI
- Relations to contacts, links

- Service-Now stores the master copy of the SC
- For each SC target type a central database at CERN (AIS Roles) stores the roles and the people assigned to these roles

Functional Element configuration for Service-Now:

- Name: Service-Now
- Organic Unit: IT-CF-ASI
- Delivered by Organic Unit: [Search]
- Lifecycle phase: Operation
- Functional Manager Group: Service-Now Functional Manager
- 2nd Line Support Group: Service-Now 2nd Line Support
- 3rd Line Support Group: Service-Now 3rd Line Support
- QWH Support Line: Service-Now OWH

General description: The service-now functional element provides for support of the service-now service management application instances of CERN. This covers development, maintenance and support for the service management processes and support services.

Keywords: ServiceNow, Incident Management, Request Fulfillment, snow, now, Service, Catalogue

Worklog:

Related Items: Support for Impact A - Service Elements, Process Application Support

Update Save

Related Links: Subscribe

Name	Description	Confidential	Created
3rd Party Interfaces	These are interfaces to third parties.GG...	false	04-04-2011 13:44:07
Email	These are the issues for inbound emails ...	false	04-04-2011 14:10:09
Reporting	Reporting	false	04-04-2011 14:15:56

Synchronization

- AIS Roles -> Service-Now: Data source facility
- Service-Now -> AIS Roles: Java middleware developed at CERN that consumes Service-Now web services and Oracle JDBC libraries

- Inbound emails
 - Will be support only for the **transition period** until end-users start to get more confident with the portal
 - Map the existing mailfeeds to FEs
 - **Too many exceptions to handle**
- Outbound emails
 - Designed the notification events model
 - Created the email templates

- Current Production State
 - Configuration
 - Customization
 - Development

- State-driven workflow
 - The current incident state defines
 - The possible next states
 - The fields which are mandatory / visible
- **Extends** the incident table of Service-Now
 - FE, SE and the relation between them
 - Set of questions to ask the end user (per FE)
 - Parent-child relationship
 - Categories (per FE)
 - Incident location
 - No notification flag
 - Confidential flag

- **Integration** with the GGUS workflow - **SOAP WS**
 - **Thanks** to the GGUS people for the efficient cooperation
- Possibility to transform an incident into a request
- Implemented Service Offerings approach to handle Service Level Agreements

The screenshot displays the 'Incident' management interface. The top bar includes 'Update' and 'Save' buttons. The main form is divided into several sections:

- Caller:** Jakub Moscicki
- Service Element:** Process Application Support
- SE <-> FE Relation:** A: Process Application Support <-> Service-N
- Functional Element:** Service-Now
- Functional Category:** (empty)
- Assignment group:** Service-Now 2nd Line Support
- Assigned to:** Zhechka Toteva
- Questions:** (empty)
- Incident state:** Waiting for Parent
- Confidential:**
- Number:** INC021044
- Opened:** 14-03-2011 09:57:02
- Opened by:** Jakub Moscicki
- SLA due:** 28-03-2011 13:38:25
- Impact:** 1 user affected, service degrader
- Urgency:** High
- Priority:** 4 - Low
- Report type:** Email
- Watch list:** (empty)
- Parent Incident:** INC021033
- Service offering:** Process Application Supp
- Flagged:**

Incident Location: 28/1-018

Short Description: problem accessing snow web pages with my user name

Description: (empty text area)

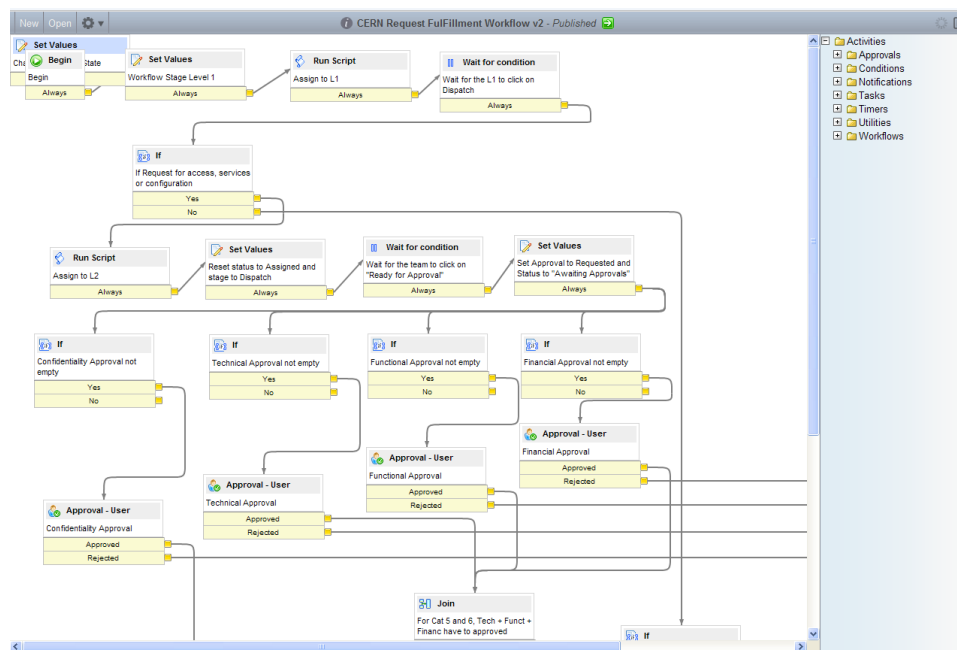
Communication

Additional comments (Customer View): (empty text area)

18-04-2011 18:38:55 - Zhechka Toteva
I suppose you do not get this anymore as we have increased the timeout of the session.
May I close the ticket?

Additional comments (Customer View)

- Six different request fulfillment types
 - Follows different routing paths
 - Introduced approval processes
- Workflow engine facilities



- <https://cern.service-now.com/service-portal/>
- Based on the content management system
- Powerful **Google-style searches**
- Nice graphical presentation of the SC
- **User customizable views**
- Easy communication with the supporters
- Predefined question forms for SE and FE

[Home](#) > [My profile](#)Zhechka Toteva [[Log out](#)] [Français](#)

CERN Service Portal

easy access to services at CERN

Search:

[Home](#) [News](#) [Navigate Catalogue](#) [Contacts](#) [My Profile](#) [Site Guide](#)**My profile: Zhechka Toteva**[Last Incidents](#)[Last Requests](#)[Owned Elements](#)[Personal Information](#)[Preferences](#)

Recent open incidents

Your last 10 open incidents:

No incidents found.

Recent closed incidents

Your last 10 closed incidents (total: 15 incidents):

Created on	Closed on	Number	Description
04 Mar 2011	07 Apr 2011	INC018876	FW: person not in Service Now
29 Mar 2011	01 Apr 2011	INC026449	request for new database accounts
14 Feb 2011	28 Mar 2011	INC011868	CERN Service Portal feedback: bug report
14 Feb 2011	28 Mar 2011	INC011867	CERN Service Portal feedback: bug report
21 Mar 2011	26 Mar 2011	INC023511	RE: slsdev01 ssh problem
28 Feb 2011	10 Mar 2011	INC017095	RE: Lemon/LAS ticket submitted by operator
14 Feb 2011	10 Mar 2011	INC011866	read only fields
28 Feb 2011	03 Mar 2011	INC017024	Propagate the SE deletion to SO
15 Feb 2011	03 Mar 2011	INC012202	check the group type
15 Feb 2011	03 Mar 2011	INC012156	wrong caller name in the incident list

- Knowledge Article Creation
 - Article Edit, Review and Publish process
 - Forces a **review process**
 - Bilingual support
 - **Flexible visibility policy** for an article
- Imported the existing Knowledge Articles

KB Submission | = Required field

Update Save Back To Submitter Go To Layout Review Reject Delete

Number:	SUB10330	Submitted by:	Barbara Brugger
Status:	Functional Review	Author:	Barbara Brugger
Functional Element:	Service Desk	Owner group:	Service Desk Functional M
Language:	English	Role:	service_desk
Next Review Date:	17-04-2012	Article visibility:	'itil' for supporters, 'public' to the world, leave empty for CERN users
Valid to:	01-01-2020	Assignment group:	Service Desk Functional Manager
News Article:	<input type="checkbox"/>		

Title: Access to password protected area of Medipix Website

Text:

Normal Arial 8 pt B I U

Access to the password protected area of the website is **limited to collaboration members** whose institutes have signed the collaboration agreement which contains confidentiality clauses.

Some confidential information are kept there and therefore access to non collaboration members cannot be given.

In case of request for access to this area of the website, **contact person: Michael Campbell** in PH Department Tel: +41 22 767 48 66

- Knowledge Usage
 - **Automatic** Full-Text Search in KB of keywords in the incident and request title
 - Possibility to **link** the article **directly** in the incident
 - Feature to rate KB article usefulness and usage

- Change Management workflow for Service-Now development
- **Integration** with EDH, the document approval system at CERN
- **Integration** with the equipment data (InforEAM) and facility workflow system

- Migrate rest of the workflows running on Remedy and APEX into Service-now. The goals are:
 - Better **integration** between the workflows
 - Supporters and end users will the **same tool** for different tasks
 - **Reduce** the maintenance, development and administration **cost**
 - Take the opportunity to **redesign** the workflows according to the **current and future needs** and clean up **legacy**

- Hardware Management System (HMS)
 - Operations: install, move/rename, retire, repair
 - 3rd party systems: CDB and LANDB
- Computer Center Alarms System (ITCM)
 - Tickets created both from machine alarms (events) and manually (service managers)
 - The actions depends on the host specific information that is retrieved from a 3rd party (CDB)
- Hardware procurement workflow (CHIMP)
 - Involves different partners, 3rd party systems and operations

- Finalizing project's phase 1
 - Fully operational Service catalog, Incident Management, Request Fulfillment, Knowledge base, GGUS, SSO, Basic CMDB CI
 - Small enhancements to improve the usability since the initial launch of the system
- Project's phase 2 (May-August)
 - Change management for Service-Now development
 - Integrate Request Fulfillment with the approval and facility management systems
 - Continual improvement
- Preliminary plans for Phase 3 and Phase 4

- Clearly described processes good but
 - Agile approach followed => a lot of rework!
- Need to adapt to the users' feedback but
 - Desire to strictly follow the defined processes
- Incredible tool (certainly better than the old solution) but
 - There are no miracles (still needs a lot of work and mistakes can be made)
- Unrealistic milestones
 - Milestones based on SN and user feedback but
 - CERN (over) customizes
 - CERN needs heavy integration with existing systems

- Questions?

Service Element		Update	Save	Delete CI	↑	↓	📄
Name:	Process Application Support						
Customer Service:	Application Support for Service Management 🔍 📄	Service Area:	Service, Organization and Process Management 🔍 📄				
Customer Group:	Process Application Support Customers 🔍 📄						
Lifecycle phase:	Operation ▼						
Visibility:	Dedicated ▼						
Service hours:	Working Days From 08:30 To 12:30 And From 13:30 To 17:30						
Support hours:	Working Days From 08:30 To 12:30 And From 13:30 To 17:30						
Operational hours:	Alltime						
General description:	⊖ ⊕	Keywords:	⊖ ⊕				
This service provides assistance related to the development, operation and support of tools used for implementing Service Management processes for IT, GS, FP and HR as well as additional IT-specific workflows.		remedy, servicenow, service now, incident management, request fulfilment, itcm, chimps, hms, process, processes, service management, itil, snow, service-now, requêtes,					
Capacities:	⊖ ⊕	Performance:	⊖ ⊕				
Other quality parameters:		Portal Message:					
Worklog:							

- Founded on ITIL V3 practices
 - Incident management, request fulfillment and service catalogue out-of-the-box
- Flexible/modular
 - Simple and consistent views
- User platform/browser independent
 - WEB-based interface for development, administration and production use
- Easy integration with third party systems
 - Data sources, SOAP web services
- Extendable
 - Workflow editors, server/client side scripting facilities
- www.service-now.com