



D3.3: First stage implementation plan for service management in Federated e-Infrastructures

Deliverable

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Abstract

This Deliverable comprises a generic plan for implementing IT service management (ITSM) in federated IT infrastructures – independent from the specific business model of the federator.

The key purpose of this Deliverable is to give a generic overview of the activities to be performed as part of an integrated service management system (SMS) – covering both general activities and activities in the context of the specific ITSM processes.

In addition to giving an overview of the generic and process-specific activities, we present a generic “service management implementation and improvement plan” which can be instantiated, refined and then applied by any organisation planning to implement an SMS. This generic plan is structured around seven important topic areas, and closely linked to the SMS activities identified before.



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1. Introduction

As part of the FedSM project, a minimal set of requirements for an effective service management system (SMS), including requirements for a number of 14 IT service management (ITSM) processes, has been developed. These requirements are listed in the project Deliverable D3.2, which was the basis for the FitSM-1:2013 standard (“Minimum requirements for lightweight service management in federated IT infrastructures”).

This Deliverable (D3.3) goes one step further: It can be regarded as a “generic plan” showing the concrete activities that need to be performed rather than just stating requirements.

1.1. Purpose and contents of this Deliverable

The key purpose of this Deliverable is to give a **generic overview** of the activities to be performed either in terms of **general activities** to set-up, operate, support, monitor and continually improve an SMS, or in terms of activities to be carried out in the **context of the specific ITSM processes** (e.g. Service Portfolio Management, Service Level Management, Incident & Service Request Management, ...) that are part of this SMS.

This Deliverable concludes with a generic “service management implementation and improvement plan” which can be instantiated, refined and then applied by any organisation planning to implement an SMS. This generic plan is structured around seven important topic areas, and closely linked to the SMS activities identified before. For each of the three ‘client’ partners in the FedSM project (EGI.eu responsible for operating EGI, CSC responsible for operating FGI, and Cyfronet responsible for operating PL-Grid), the generic plan has been instantiated and refined in this early stage of the project in order to create a **clear understanding of how to address** the most important points in setting up or improving the existing SMS, and to create a **sense of urgency** promoting and supporting future steps.

However, it is **not** the purpose of this Deliverable to identify in detail all the specific tasks to be carried out by the FedSM ‘client’ partners in the next one and a half years, since this is subject to Deliverable D5.3 (Process development and improvement plan) and requires input from a solid gap and maturity assessment (D5.2: Clients’ process implementation and maturity baseline), following the scheme to be presented in D5.1 (Process implementation and maturity baseline assessment framework).

All activities listed in sections 3 and 4 of this Deliverable as well as the generic plan presented in section 5 refer to the first implementation stage of an SMS, assuming a two-stage approach. Where second stage activities are listed in sections 3 or 4, they are printed in *italics* and coloured in light-gray.

1.2. Structure of this document

In sections 3 and 4, we have listed the key activities to set up a service management system, based on the minimum requirements identified by FitSM-1:2013 (D3.1):

- Section 3 lists the generic activities to plan and set-up, operate, support, monitor and continually improve a service management system (SMS).
- Section 4 lists the generic activities to be carried out in the context of the ITSM processes that are part of the SMS.

Following these lists of activities, we provide a generic first stage implementation and improvement plan covering seven important topics to be addressed when implementing an SMS.

- Section 5 is the generic first stage implementation plan which may be used, instantiated and refined by any organisation (including Federators in federated IT infrastructures, independent from their business model).
- Section 6 shows how the generic plan from section 5 has been instantiated by the three ‘client’ partners in the FedSM project at this early stage of the project.
 - Section 6.1: First stage SMS implementation & improvement plan for EGI.eu / EGI
 - Section 6.2: First stage SMS implementation & improvement plan for CSC / FGI
 - Section 6.3: First stage SMS implementation & improvement plan for Cyfronet / PL-Grid

1.3. Relationship between this and other Deliverables

It is important to understand that work package 3 of the FedSM project (“Service management conceptual frameworks and guidance”) is the work package in which major parts of the FitSM standard series are developed. FitSM is a “Standard for lightweight service management in federated IT infrastructures”. Figure 1 shows how this Deliverable (D3.3) is related to other project Deliverables and parts of FitSM.

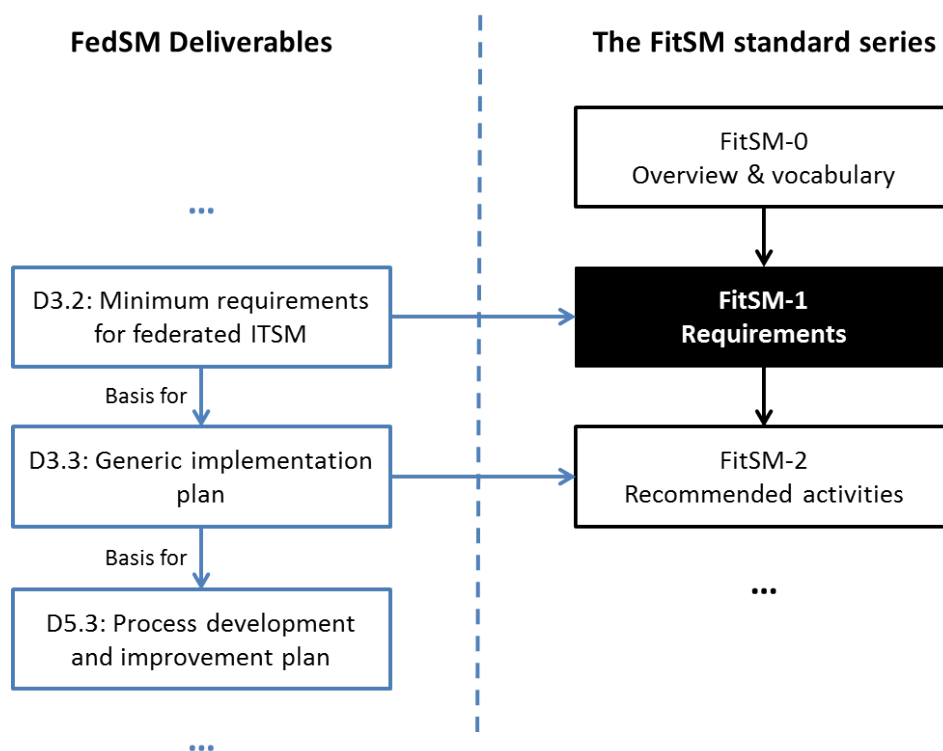


Figure 1: Relationship between D3.3, previous and future Deliverables, and the FitSM standard series

2. Important terms and concepts

For the purpose of this Deliverable, we refer to the terms and definitions given in FitSM-0:2013, Clause 3.

3. Generic activities to plan and set-up a service management system

3.1. Top management responsibility

- GA1.1 Prepare a problem statement outlining the issues caused by lack of service management and the consequent motivation for implementing or improving ITSM.
- GA1.2 Define an appropriate single point of contact for dealing with top management on service management issues.
- GA1.3 Propose a service management policy aligned to organisational strategic goals for top management approval.
- *[Stage 2 activity] GA1.4 Review the service management policy at regular intervals to ensure it matches the needs for the organisations, the organisation's strategic goals, the fulfilment of service requirements and improvements.*

3.2. Documentation

- GA2.1 Agree on a single location and format for service management documentation (such as a document management system, wiki, file format, versioning system).
- GA2.2 Agree and document procedures for controlling documentation (creation, approval, distribution, review, versioning).
- GA2.3 Agree on the specific documents to produce and maintain (such as service management policies, plans, service catalogues and others)

3.3. Defining the scope of service management

- GA3.1 Discuss the required scope of service management by defining which services, technologies, locations and customers it applies to.
- GA3.2 Align the scope to the service management policy, available resources and customer requirements.

3.4. Planning service management (PLAN)

- GA4.1 Assess the baseline maturity of your current service management either informally/anecdotally or more specifically using a system such as the FitSM maturity model.
- GA4.2 Set an appropriate goal level of maturity for service management (qualitatively or quantitatively) to be achieved.
- GA4.3 Determine and describe the gap between defined goals and the current baseline – the 'delta'.
- GA4.4 Identify and specify the tasks for improvement based on this 'delta'.
- GA4.5 Assign roles and responsibilities for the improvement tasks.
- GA4.6 Assign a timeline to specific tasks.
- GA4.7 Define and document processes and process interfaces for the service management system.
- GA4.8 Define and assign process roles and responsibilities.

3.5. Implementing service management (DO)

- GA5.1 Implement and operate the SMS according to what it is stated in the service management plan.

3.6. Monitoring and reviewing service management (CHECK)

- [Stage 2 activity] GA6.1 Define specific, measurable and relevant indicators and procedures for monitoring the effectiveness and efficiency of the SMS.
- [Stage 2 activity] GA6.2 Regularly monitor the defined indicators and record the results.
- [Stage 2 activity] GA6.3 Perform regular qualitative assessments of the service management system
- [Stage 2 activity] GA6.4 Define an internal audit program taking into account the status and importance of the processes to be audited, defining the scope and frequency of audits and ensuring impartiality of the audit by the selection of suitable auditors.
- [Stage 2 activity] GA6.5 Plan and perform audits according to the audit program.
- [Stage 2 activity] GA6.6 Report on the result of measurements, assessments and audits to all relevant parties including top management.

3.7. Continually improving service management (ACT)

- [Stage 2 activity] GA7.1 Create a list of potential improvement options
- [Stage 2 activity] GA7.2 Use the Continual Service Improvement Process to prioritize, approve or reject, and implement improvements.

4. Generic IT service management process activities

4.1. Service Portfolio Management

- PA1.1 Add (or remove) service to (from) the service portfolio
- PA1.2 Create and approve a service design package (SDP)
- PA1.3 Document changes in the service portfolio and the SDP

4.2. Service Level Management

- PA2.1 Service catalogue-related:
 - Add service to service catalogue
 - Update service specification or remove service
- PA2.2 SLA-related:
 - Negotiate and sign SLA
 - Monitor SLA fulfillment
 - Evaluate and report on SLA fulfilment
 - Notify customer of SLA violation
 - Update or resign SLA
- PA2.3 OLA-related:
 - Negotiate and sign OLA
 - Monitor OLA fulfillment
 - Evaluate and report on OLA fulfilment
 - Notify Federation member of OLA violation
 - Update or resign OLA

4.3. Service Reporting

- PA3.1 Define/specify a service report
- PA3.2 Produce and distribute service report

- PA3.3 Update a report specification or terminate a service report

4.4. Service Continuity & Availability Management

- *[Stage 2 activity] PA4.1 Identify and record service continuity and availability requirements*
- *[Stage 2 activity] PA4.2 Create a service continuity plan*
- *[Stage 2 activity] PA4.3 Create a service availability plan*
- *[Stage 2 activity] PA4.4 Monitor service availability*

4.5. Capacity Management

- *[Stage 2 activity] PA5.1 Identify and record capacity requirements and performance requirements*
- *[Stage 2 activity] PA5.2 Create a capacity plan*
- *[Stage 2 activity] PA5.3 Monitor service capacity, utilisation and performance*

4.6. Information Security Management

- *[Stage 2 activity] PA6.1 Define information security policies*
- *[Stage 2 activity] PA6.2 Identify and analyse information security risks*
- *[Stage 2 activity] PA6.3 Plan information security controls*
- *[Stage 2 activity] PA6.4 Implement and monitor information security controls*
- *[Stage 2 activity] PA6.5 Review information security controls*
- *[Stage 2 activity] PA6.6 Review information security policies*
- *[Stage 2 activity] PA6.7 Record and handle information security incidents*

4.7. Customer Relationship Management

- PA7.1 Identify and record customers
- PA7.2 Measure/evaluate customer satisfaction
- PA7.3 Plan and conduct customer service reviews
- PA7.4 Record and handle customer service complaints

4.8. Supplier Relationship Management

- PA8.1 Identify and record supplier
- PA8.2 Monitor supplier performance
- PA8.3 Record and handle disputes

4.9. Incident & Service Request Management

- PA9.1 Record incident or service request
- PA9.2 Classify incident or service request
- PA9.3 Prioritize incident or service request
- PA9.4 Escalate incident or service request
- PA9.5 Resolve incident or service request
- PA9.6 Close incident or service request
- PA9.7 Keep customer informed about the progress of the incident or service request

4.10. Problem Management

- *[Stage 2 activity] PA10.1 Identify and record problem*
- *[Stage 2 activity] PA10.2 Classify problem*

- [Stage 2 activity] PA10.3 Prioritize problem
- [Stage 2 activity] PA10.4 Escalate problem
- [Stage 2 activity] PA10.5 Create known error record
- [Stage 2 activity] PA10.6 Resolve problem
- [Stage 2 activity] PA10.7 Close problem

4.11. Configuration Management

- [Stage 2 activity] PA11.1 Create configuration record
- [Stage 2 activity] PA11.2 Update configuration record
- [Stage 2 activity] PA11.3 Audit configuration records

4.12. Change Management

- [Stage 2 activity] PA12.1 Submit request for change (RFC)
- [Stage 2 activity] PA12.2 Classify RFC
- [Stage 2 activity] PA12.3 Evaluate RFC
- [Stage 2 activity] PA12.4 Approve change
- [Stage 2 activity] PA12.5 Update change schedule
- [Stage 2 activity] PA12.6 Coordinate change implementation
- [Stage 2 activity] PA12.7 Post change implementation review
- [Stage 2 activity] PA12.8 Update catalogue of standard changes

4.13. Release & Deployment Management

- [Stage 2 activity] PA13.1 Plan release
- [Stage 2 activity] PA13.2 Build release
- [Stage 2 activity] PA13.3 Test release
- [Stage 2 activity] PA13.4 Inform, educate and train users on deployment
- [Stage 2 activity] PA13.5 Inform, educate and train support staff on deployment
- [Stage 2 activity] PA13.6 Prepare live environment for deployment
- [Stage 2 activity] PA13.7 Rollout release
- [Stage 2 activity] PA13.8 Review release

4.14. Continual Service Improvement Management

- PA14.1 Create a structure for assessing different elements of the service management system in turn.
- PA14.2 Promote idea of continual improvement to staff members.
- PA14.3 For each area:
 - Identify and record opportunities for improvement
 - Prioritize opportunities for improvement
 - Evaluate and approve opportunities for improvement
 - Reflect on effect of improvement to identify new opportunities

5. Generic SMS implementation and improvement plan

This section provides a generic plan for implementing, developing and improving service management. Content in [square brackets] is an example and to be replaced in creating a specific plan by the organization setting up their service management system.

Figure 2 shows the seven topic areas addressed by the generic plan, implying a chronological order that should normally be followed, since later steps usually require earlier steps having been performed.

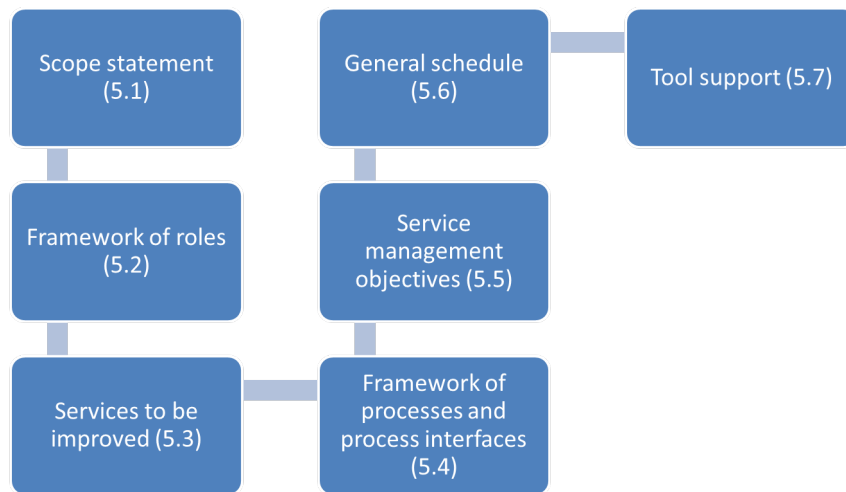


Figure 2: Topics and aspects to be addressed by a (generic) SMS implementation and improvement plan

5.1. Scope statement

References to recommended activities (sections 3 and 4 of this document):

→ Section 3.3: Defining the scope of service management – GA3.1, GA3.2

Guidance	Example
<p>The scope statement defines the subject of the improvement and the services affected. In this case it will be the selection of services you have decided to improve.</p> <p>ISO/IEC 20000-3:2012 provides detailed information on scope definition and applicability in the context of a service management system (SMS). According to this standard, the scope definition should:</p> <ul style="list-style-type: none"> • be as simple as possible; • be understandable without detailed knowledge of the service provider’s organization; • be worded so that any exclusions are clear; • be stand-alone and not refer out to other sources. <p>The organization (service provider) should be aware that only the evidence based on the scope of the SMS is considered during an assessment.</p> <p>Different parameters can be used to define the scope of the SMS to ensure that there is no ambiguity about what is included and excluded.</p> <p>The parameters should include at least:</p> <ul style="list-style-type: none"> • organizational unit(s) providing services, e.g. a single organization or department, group or federation of organizations or departments 	<p>Scope statement for the service management system (SMS) of [Organisation]:</p> <p>[Organisation] delivering the services [service 1, service 2, service 3, ...] to [customer (group) 1, customer (group) 2, ...].</p> <p><i>(Optional: Any further limitations based on technologies or locations.)</i></p>

- services delivered, e.g. a single service, group of services or all services covered by the service catalogue / portfolio

Further parameters that may be considered include:

- technologies
- customers or customer location(s)
- provider location(s)

The processes and requirements to be considered in the planning and implementation phase are **not a direct subject** to the scope definition. They are usually considered when defining and scheduling goals and milestones. For example, if certain service management processes or requirements (see FitSM-1:2013 / FedSM Deliverable D3.2) are excluded from the first stage of implementation, this is **not** stated as part of the scope, but as part of the following steps of planning.

Also, the intended target maturity level of the SMS is not part of the scope statement. However, this may be attached to the scope statement as “additional information”.

5.2. Framework of roles

References to recommended activities (sections 3 and 4 of this document):

→ Section 3.4: Planning service management (PLAN) – GA4.5

Guidance	Example
Introduction	
This section sets out the expected roles required to manage the service management improvements. The source material can be found in FedSM Deliverable D4.1 (Role map).	In planning the improvement of [organization] we need to define the roles that will be necessary. These include generic roles and specific ones related to the processes and capabilities we seek.
Generic roles	
Not all roles may be necessary for your situation. For instance if you are only advancing a process to level one it may only need a process owner, who fulfills all task within the process. By level two you will likely need at least process staff to do the tasks within the process. You may also need case managers, to handle specific areas within the process, and will certainly need them by level three.	In planning our improvement to [stage one of the FedSM improvement plan] we define the following generic roles from the FedSM Role Map (D4.1) <ul style="list-style-type: none"> - The Senior Responsible Owner, who has the overall accountability for all ITSM-related activities and manages the overall ITSM improvement; - a Process Manager per process who is for responsible for their respective ITSM process (e.g. the process of incident management); - a Case Manager is responsible for one specific case occurring in a process context (e.g. one specific incident to be resolved); - members of Process Staff for each process, who carry out defined activities according to established procedures (e.g.

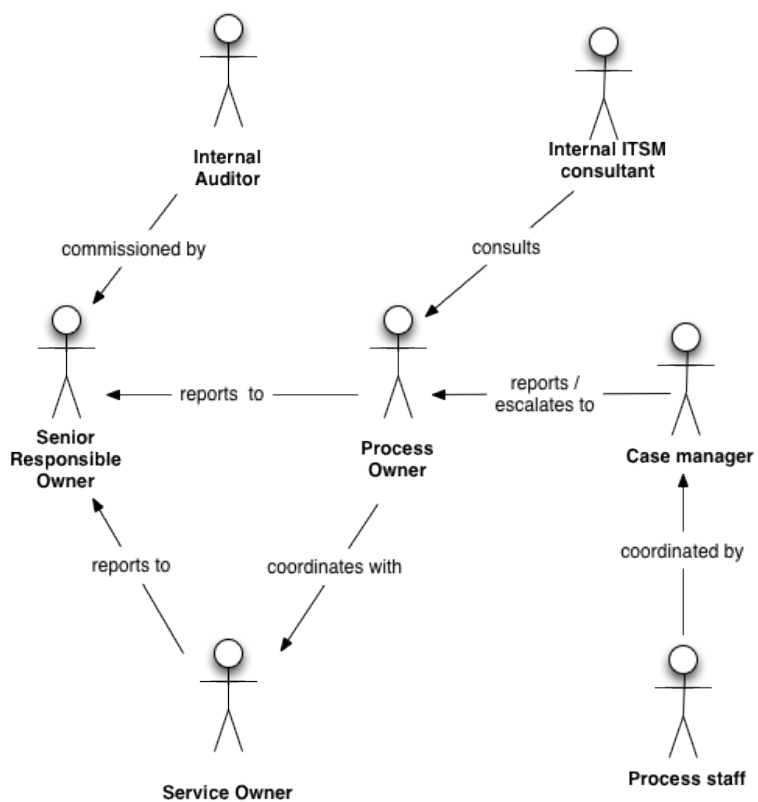
Internal ITSM consultants may well be members of your organisation that have experience from working on FedSM that can help others set up processes or procedures. Equally, an internal Auditor will assess compliance with the standard requirements, and may again be someone who has worked on FedSM or who has taken the FedSM professional training.

the activity of prioritizing an incident) [note – staff can work on multiple processes];

- a **Service Owner per service** who is responsible for a specific service which is part of the service catalogue (e.g. the service of providing computational resources);
- an **Internal ITSM Consultant** who consults the Process Managers in defining (setting up) and improving their processes;
- an **Internal ITSM Auditor** who assesses conformance with the requirements and conducts process audits to ensure effectiveness and compliance of processes.

Generic role relationships

This diagram outlines the relationships between the generic roles. Remember that not all roles may be filled in your current situation and individuals may fulfill multiple roles so do not worry that you need to hire dozens of extra staff.



This figure shows the relationship between the generic roles considered.

Specific Roles

Fill in names for roles that are appropriate to your plans for this phase. This must at a minimum include the Senior Responsible Owner and the owners of services and processes. We recommend considering case managers for the processes that are being taken to Level 3.

From the above information we foresee the following specific roles/ At this stage we do not provide names for process staff, just for named roles.

- General roles
 - Senior Responsible owner – [Name]
 - [Service 1] owner – [Name]
 - [Service 2] owner – [Name]
 - Internal auditor – [Name/s]
 - Internal ITSM consultant – [Name/s]
- Service Portfolio Management (SPM)

- Service Portfolio Manager - [Name]
- Service Level Management (SLM)
 - Service Level Manager
 - SLM Case manager, [1. role, such as manager for a specific SLA or set of SLAs] -[Name]
- Service Reporting (SR)
 - Service Reporting Manager
 - SR Case manager, [role as in manager for a specific set of reports] - [Name]
- Customer Relationship Management (CRM)
 - Customer Relationship Manager – [Name]
 - CRM Case manager, [1, role as in manager of dealing with customer X] – [Name]
- Supplier Relationship Management (SRM)
 - Supplier Relationship Manager – [Name]
 - SRM Case manager, [1, role as in manager of dealing with supplier X] – [Name]
- Incident and Service Request Management (ISRM)
 - Incident and Service Request Manager – [Name]
 - ISRM Case Manager, [role, as in manager for an incident or class of incidents] – [Name]
- Continual Service Improvement (CSI)
 - Continual Service Improvement manager – [Name]
 - CSI Case Manager – [role, as in manager for a specific improvement or area] – [Name]

5.3. Services to be improved

References to recommended activities (sections 3 and 4 of this document):

→ Section 4.1: Service Portfolio Management – PA1.1, PA1.2, PA1.3

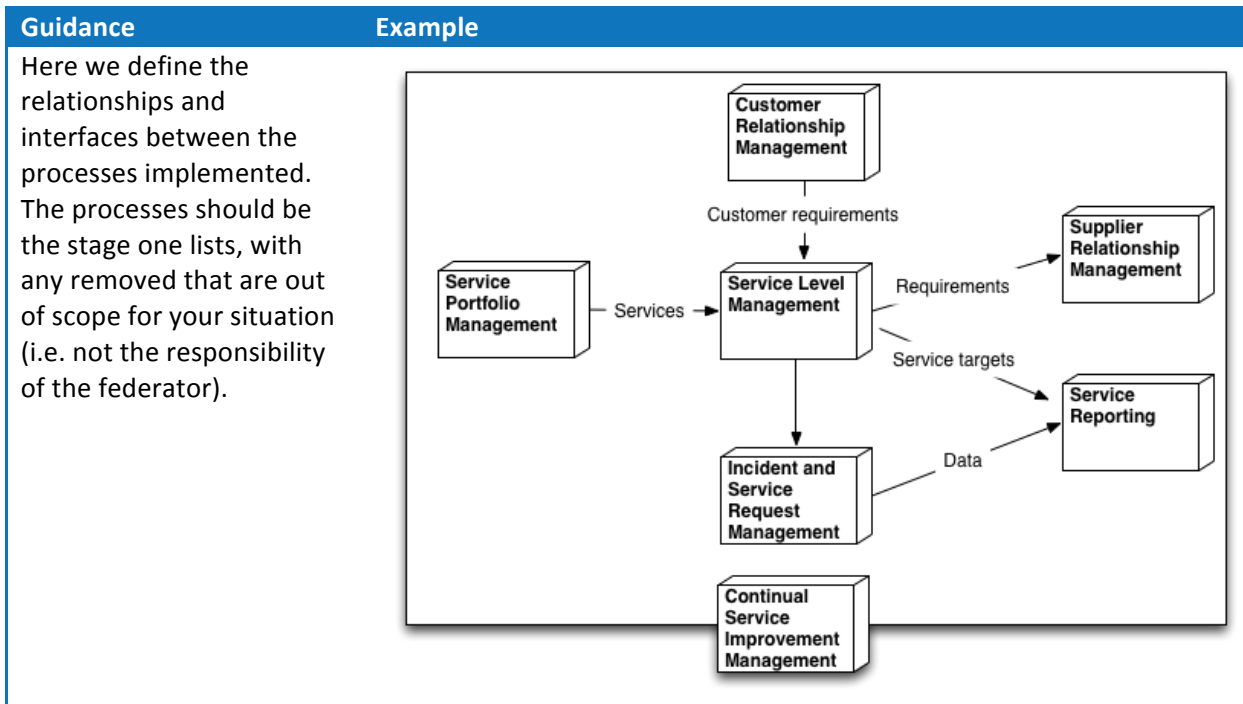
→ Section 4.2: Service Level Management – PA2.1

Guidance	Example
This section provides a description of the services to be improved. Details can be taken from the Service Portfolio if one is available.	<p>[Service 1 – e.g Storage Service] [Storage services] are provided by [organization] to [virtual organisations]. The service consists of the following core components:</p> <ul style="list-style-type: none"> • [Network access] • [Magnetic drives] • [Data management system] <p>In addition the service has the following additional or optional components:</p> <ul style="list-style-type: none"> • [Tape drives] • [Multi-site replication]. <p>The service is currently provided [current SLM state: on a best effort basis on the basis of informal agreements with users].</p> <p>[Service 2 – e.g Compute Service etc] [...]</p>

5.4. Framework of processes and process interfaces

References to recommended activities (sections 3 and 4 of this document):

→ Section 3.4: Planning service management (PLAN) – GA4.7



5.5. Service management objectives

References to recommended activities (sections 3 and 4 of this document):

→ Section 3.4: Planning service management (PLAN) – GA4.2, GA4.3, GA4.4

Guidance	Example
Introduction	
<p>Here we set out the concrete objectives for the improvement, based on the standard requirements at the levels specified in stage 1. As such the requirements should be correct though you can remove those for processes out of scope for your situation (based on federation responsibility model).</p>	<p>The overall objective of the improvement is to raise the maturity of service management in [organization]. We define four levels of maturity in our model, and in the first phase of improvement (covered by this plan) seek to bring the overall maturity to level 2 for a selected subset of ITSM processes (7 out of 14 processes). We refer to this level of maturity as ‘in place’ in that service management is in place, despite not being highly efficient or controlled.</p> <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); margin-right: 10px;">Overall Maturity</div> </div>
Target capability levels	
<p>These capability levels come from the FedSM standard</p>	<ul style="list-style-type: none"> • Level 1: <ul style="list-style-type: none"> ○ Supplier Relationship Management (SRM) <ul style="list-style-type: none"> ▪ There is a defined and documented procedure for

requirements, and describe levels of compliance with a subset of the requirements that are to be implemented in phase 1 of FedSM's improvement (D3.2).

The goal of this phase 1 improvement plan is to make these statements hold true for a target infrastructure. If there are processes that are out of scope for your federation they can be removed.

- maintaining a supplier list.
 - Communication mechanisms with suppliers are available, recorded and the procedures for their use are documented.
 - Disputes with suppliers are managed on a direct and case-by-case basis, though a record of the complaint is created and maintained.
 - Mechanisms that measure supplier performance are used but not documented.
- Level 2
 - Service Portfolio Management (SPM)
 - There is a clear understanding of the service offer (past, current, planned), relationship to support activities and other related information that connect to the value creation capabilities. This list is maintained on an informal basis.
 - There is an understanding of a structured approach for the transition to new services or changes to current services that is applied routinely, but this is not documented. Acceptance criteria, timescales are managed at a qualitative level.
 - Service Reporting (SR)
 - Service reports for some services are defined. However definitions may be different in structure and format. Some of the service reports are informally agreed between Federator and Customer.
 - There is some informal way of defining contents of a service report but the documentation is rather scarce and not always followed.
 - There is some documentation on how service reports are produced but it is not complete. There may be inconsistencies in output format of service reports.
 - Customer Relationship Management (CRM)
 - There is a list of customers and their contacts. This list is maintained on an informal basis.
 - There is a person assigned to each specific group of customers that manages the relationship and satisfaction.
 - Communication mechanisms for contacting customers are available and recorded.
 - Service reviews are made at planned intervals but there is no defined standard procedure.
 - Customer complaints are managed on a direct and case-by-case basis, though, a record of the complaint is created and maintained.
 - Mechanisms that measure customer satisfaction are used but not documented.
 - Continual Service Improvement (CSI)
 - There are procedures for elements of service management such that occurrences where practice is far outside of these procedures are noticeable. In such cases there is an effort to bring practices back

- into some form of loose compliance.
 - There is some process for seeking improvements and documenting them that is carried out periodically. However, opportunities are not identified systematically and not all are recorded.
 - There is a procedure for prioritization of opportunities for improvement but it is loose and based on a small number of parameters, such as cost and immediate impact. Documentation of decisions is patchy.
 - There is some procedure for evaluating and approving opportunities for improvement, based on a set of criteria identified in advance. The procedure is broadly followed, though it is not extensively documented and decisions are not well recorded and documented.
 - There is a procedure for planning and implementing improvements, but it remains relatively simple and outcomes are based on the approach of the individuals following it. Plans are documented to a limited extent and implementation is not systematic.
- Level 3
 - Service Level Management (SLM)
 - There is a defined and documented procedure for negotiating SLAs, which in particular specifies the required scope of the negotiated SLA, the output format in which the SLA must be stored, and how the SLA and service targets are defined, but may be different in structure and specification in different SLAs.
 - There is a defined and documented procedure for maintaining a service catalogue clearly specifying differentiated service offerings.
 - There is a defined and documented procedure for reviewing services and SLAs at planned intervals.
 - There is a defined and documented procedure for service performance monitoring and reporting the results to relevant parties.
 - There is a defined and documented procedure for establishing OLAs, well-aligned to specific services offered to customers.
 - Incident and Service Request Management (ISRM)
 - There is a defined and documented procedure for recording incidents based on clearly specified information templates and step-by-step guidance.
 - There is a defined and documented procedure for classifying incidents based on a clearly specified scheme and step by step guidance.
 - There is a defined and documented procedure for prioritizing incidents based on clearly specified criteria, considering impact and urgency of the incidents.

	<ul style="list-style-type: none"> ▪ There is a defined and documented procedure for escalating incidents based on clearly specified criteria, differentiating between functional and hierarchical escalation. ▪ There is a defined and documented procedure for the closure of incidents including informing users and/or customers of the resolution and giving them the opportunity to confirm the resolution of the incident, plus a final review of the incident record against defined criteria. ▪ Available sources of configuration and release information are documented. In addition, there is a defined and documented procedure for using these sources of information in order to effectively handle and resolve incidents. ▪ Users and customers are systematically and consequently informed of the progress of their reported incidents and service requests. This happens both in a reactive and proactive way, according to a defined and documented procedure. ▪ There is a defined and documented procedure for the classification and management of major incidents from occurrence to closure including effective communication, coordination of resolution activities and post resolution review.
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5.6. General schedule

References to recommended activities (sections 3 and 4 of this document):

→ Section 3.4: Planning service management (PLAN) – GA4.6

Guidance	Example
Milestones and general timeline	
<p>In this section we provide the broad milestones for the improvement to cover the period to Feb 2014. Already included are fixed points related to FedSM deliverables and some other key dates.</p> <p>Note, the date for the baseline being complete (i.e. assessment results available) is in advance of formal deliverable date.</p>	<ul style="list-style-type: none"> • March 2013 – Baseline process assessment framework available • April 2013 – Process maturity baseline complete • May 2013 – Detailed schedule of tasks based on logical order for process capability achievement • September 2013 – interim progress assessment • Feb 2014 – Stage one completed
Logical order for process capability achievement	
<p>At this point there is no detailed schedule, as we need baseline assessment to do this. Rather we have a proposed</p>	<p>In order to achieve improvement, changes must be tackled in a logical order. This means moving up through the capability levels in order. In general these levels are:</p> <ul style="list-style-type: none"> • Capability 1: create awareness of tasks related to the

order clustered into logical units that should be achievable. Remember that getting to level 1 will tend to be very easy, the largest jump will be 1 to 2.

process; ensure individuals take action to manage these tasks on at least a reactive basis.

- Capability 2: establish intuitive procedures for the process that create positive results
- Capability 3: establish defined procedures for the process that not only create positive results but whose procedures are documented and results recorded.

To achieve the overall objectives of this improvement, it will be improved in the following steps:

- Step 1
 - ISRM Capability 1
 - SLM Capability 1
- Step 2
 - SPM Capability 1
 - ISRM Capability 2
- Step 3
 - SLM Capability 2
 - SR Capability 1
 - CRM Capability 1
- Step 4
 - ISRM Capability 3
 - SLM Capability 3
 - CSI Capability 1
- Step 5
 - SPM Capability 2
 - SR Capability 2
- Step 6
 - CRM Capability 2
 - CSI Capability 2
 - SRM Capability 1

5.7. Tool support

References to recommended activities (sections 3 and 4 of this document):

→ Section 3.5: Implementing service management (DO)

Guidance	Example
In this section you list the tools that will be used to support the improvement. This includes things like monitoring systems, ticketing systems, communication platforms, information storage like wikis etc. At this stage describe the current tools used as they should not change greatly in this first phase.	<p>[For the storage service the following tools are in use:</p> <ul style="list-style-type: none"> • Incidents and technical problems are tracked using the Trac ticketing system. • Communication is carried out through direct email and Mailman email lists. • Confluence Wikis are used to store process descriptions and procedures. • Asana is used for project management and task tracking.]

6. Refined SMS implementation and improvement plans

6.1. EGI.eu / EGI

6.1.1. Scope statement

EGI.eu seeks to improve the service management of the services:

- Core grid services (delivered to user communities and Resource infrastructure Providers)
 - Accounting portal and repository
 - Catch all grid services
 - Development of operations monitoring probes
 - GOCDB
 - Incident management tool (EGI Helpdesk)
 - Message broker network
 - Metrics portal
 - Operational tools and meta-service monitoring
 - Operations portal
 - Security monitoring tools
 - SAM
 - Tools for RC certification

Additional information:

The improvements to be achieved during the implementation phase shall bring the services in question to the following levels of capability.

- Level 1:
 - Supplier Relationship Management (SRM)
- Level 2
 - Service Portfolio Management (SPM)
 - Service Reporting (SR)
 - Customer Relationship Management (CRM)
 - Continual Service Improvement (CSI)
- Level 3
 - Service Level Management (SLM)
 - Incident and Service Request Management (ISRM)

6.1.2. Framework of roles

In planning the improvement of EGI we need to define the roles that will be necessary. These include generic roles and specific ones related to the processes and capabilities we seek.

In planning our improvement to [stage one of the FedSM improvement plan] we define the following generic roles from the FedSM Role Map (D4.1)

- The **Senior Responsible Owner**, who has the overall accountability for all ITSM-related activities and manages the overall ITSM improvement;
- a **Process Manager per process** who is for responsible for their respective ITSM process (e.g. the process of incident management);

- a Case Manager is responsible for one specific case occurring in a process context (e.g. one specific incident to be resolved);
- members of **Process Staff for each process**, who carry out defined activities according to established procedures (e.g. the activity of prioritizing an incident) [note – staff can work on multiple processes];
- a **Service Owner per service** who is responsible for a specific service which is part of the service catalogue (e.g. the service of providing computational resources);
- an **Internal ITSM Consultant** who consults the Process Managers in defining (setting up) and improving their processes;
- an **Internal ITSM Auditor** who assesses conformance with the requirements and conducts process audits to ensure effectiveness and compliance of processes.

From the above information we foresee the following specific roles/ At this stage we do not provide names for process staff, just for named roles.

- General roles
 - Senior Responsible owner – EGI Chief Operations Officer
 - Internal auditor – EGI-InSPIRE Project Management Board
 - Internal ITSM consultant – EGI.eu Policy Team
- Service Portfolio Management (SPM)
 - Service Portfolio Manager - EGI Chief Operations officer (for what concerns specifically core grid services)
- Service Level Management (SLM)
 - Service Level Manager: Grid Oversight Team/R. Tompert
- Service Reporting (SR): not yet appointed as reporting tools are under development (Paschalis Korosoglou/AUTH)
- Customer Relationship Management (CRM)
 - Customer Relationship Manager – EGI Chief Operations Officer, responsible of VO manager registration processes and of NGI operations contact registration
- Supplier Relationship Management (SRM)
 - Supplier Relationship Manager – E. Imamagic/SRCE coordinating deployment of central tools
- Incident and Service Request Management (ISRM)
 - Incident and Service Request Manager – G. Grein/KIT (EGI Helpdesk) and responsible of incident record follow-up and oversight
- Continual Service Improvement (CSI)
- Continual Service Improvement manager – EGI Chief Operations Officer, responsible of the collection of new requirements

6.1.3. Services to be improved

Core Grid Services

Core Grid Services are provided by EGI.eu to Virtual Organizations and NGI Operations Centres. The service consists of the following core components:

1. Accounting portal and repository
2. Catch all grid services

3. Development of operations monitoring probes
4. GOCDB
5. Incident management tool (EGI Helpdesk)
6. Message broker network
7. Metrics portal
8. Operational tools and meta-service monitoring
9. Operations portal
10. Security monitoring tools
11. SAM
12. Tools for RC certification

The service is currently provided:

- 1, 4, 5, 6, 7, 8, 9, 10, 11: in the EGI.eu Operational Level Agreement
- 2 and 12: Resource Centre Operational Level Agreement (this should probably be changed)
- 3: contractual agreement with SRCE. No service level targets and reporting defined

6.1.4. Framework of processes and process interfaces

See section 5.4, "Example" – no refinements

6.1.5. Service management objectives

See section 5.5, "Example" – no refinements

6.1.6. General schedule

Milestones and general timeline:

- March 2013 – Baseline process assessment framework available
- April 2013 – Process maturity baseline complete
- May 2013 – Detailed schedule of tasks based on logical order for process capability achievement
- September 2013 – interim progress assessment
- Feb 2014 – Stage one completed

Logical order for process capability achievement:

In order to achieve improvement, changes must be tackled in a logical order. This means moving up through the capability levels in order. In general these levels are:

- Capability 1: create awareness of tasks related to the process; ensure individuals take action to manage these tasks on at least a reactive basis.
- Capability 2: establish intuitive procedures for the process that create positive results
- Capability 3: establish defined procedures for the process that not only create positive results but whose procedures are documented and results recorded.

To achieve the overall objectives of this improvement, it will be improved in the following steps:

- Step 1
 - ISRM Capability 1
 - SLM Capability 1

- Step 2
 - SPM Capability 1
 - ISRM Capability 2
- Step 3
 - SLM Capability 2
 - SR Capability 1
 - CRM Capability 1
- Step 4
 - ISRM Capability 3
 - SLM Capability 3
 - CSI Capability 1
- Step 5
 - SPM Capability 2
 - SR Capability 2
- Step 6
 - CRM Capability 2
 - CSI Capability 2
 - SRM Capability 1

6.1.7. Tool support

For the core grid services the following tools are in use:

- Incidents and technical problems are tracked using the GGUS ticketing system, interfaced to NGI helpdesk systems. We are missing an incident notification mechanism in case an incident occurs out of business hours
- Communication is carried out through direct email and Mailman email lists.
- Requirements are communicated through the RT requirement tracking system and following the requirement management process
- The EGI wiki is used to store process descriptions and procedures. A procedure for service level management of core grid services needs to be defined
- RT is used for task tracking, in particular to assign actions to service suppliers.
- Core grid services are monitored through a dedicated central SAM installation
- Service level performance is reported centrally through MyEGI (but not yet through monthly reports).
- Catalogue, configuration and contact information of service suppliers are managed through GOCDB

6.2. CSC / FGI

6.2.1. Scope statement

FGI seeks to improve the service management of Compute Service delivered to Finnish Research Communities organized in Virtual Organizations.

Additional information:

The improvements to be achieved during the implementation phase shall bring the services in question to the following levels of capability.

- Level 1:
 - Supplier Relationship Management (SRM)
- Level 2
 - Service Portfolio Management (SPM)
 - Service Reporting (SR)
 - Customer Relationship Management (CRM)
 - Continual Service Improvement (CSI)
- Level 3
 - Service Level Management (SLM)
 - Incident and Service Request Management (ISRM)

6.2.2. Framework of roles

In planning our improvement to [stage one of the FedSM improvement plan] we define the following generic roles from the FedSM Role Map (D4.1)

- The Senior Responsible Owner, who has the overall accountability for all ITSM-related activities and manages the overall ITSM improvement;
- a Process Manager per process who is responsible for their respective ITSM process (e.g. the process of incident management);
- a Case Manager is responsible for one specific case occurring in a process context (e.g. one specific incident to be resolved);
- members of Process Staff for each process, who carry out defined activities according to established procedures (e.g. the activity of prioritizing an incident) [note – staff can work on multiple processes];
- a Service Owner per service who is responsible for a specific service which is part of the service catalogue (e.g. the service of providing computational resources);
- an Internal ITSM Consultant who consults the Process Managers in defining (setting up) and improving their processes;
- an Internal ITSM Auditor who assesses conformance with the requirements and conducts process audits to ensure effectiveness and compliance of processes.

From the above information we foresee the following specific roles/ At this stage we do not provide names for process staff, just for named roles.

- General roles
 - Senior Responsible owner – Luís Alves
 - Compute Service owner – Luís Alves
 - Internal ITSM auditor – Urpo Kaila
 - Internal ITSM consultant – Urpo Kaila
- Service Portfolio Management (SPM)
 - Service Portfolio Manager - Luís Alves
- Service Level Management (SLM)
 - Service Level Manager - Luís Alves
- Service Reporting (SR)
 - Service Reporting Manager – Luís Alves
- Customer Relationship Management (CRM)

- Customer Relationship Manager – Luís Alves
- Supplier Relationship Management (SRM)
 - Supplier Relationship Manager – Ulf Tigerstedt
- Incident and Service Request Management (ISRM)
 - Incident and Service Request Manager – Luís Alves
- Continual Service Improvement (CSI)
 - Continual Service Improvement manager – Luís Alves

6.2.3. Services to be improved

Compute Service

Compute services are provided by FGI to Finnish Research Communities organized in Virtual Organizations (VO). The service consists of the following core components:

- Advanced computing resources access through Grid Middleware

In addition the service has the following additional or optional components:

- Scientific Software, Compilers and Libraries Repository
- Grid Data Storage

The service is currently provided on a best effort basis as agreed by the user when accepting the VO membership Acceptable Usage Policy.

6.2.4. Framework of processes and process interfaces

See section 5.4, "Example" – no refinements

6.2.5. Service management objectives

See section 5.5, "Example" – no refinements

6.2.6. General schedule

Milestones and general timeline:

- March 2013 – Baseline process assessment framework available
- April 2013 – Process maturity baseline complete
- May 2013 – Detailed schedule of tasks based on logical order for process capability achievement
- September 2013 – interim progress assessment
- Feb 2014 – Stage one completed

Logical order for process capability achievement:

In order to achieve improvement, changes must be tackled in a logical order. This means moving up through the capability levels in order. In general these levels are:

- Capability 1: create awareness of tasks related to the process; ensure individuals take action to manage these tasks on at least a reactive basis.
- Capability 2: establish intuitive procedures for the process that create positive results
- Capability 3: establish defined procedures for the process that not only create positive results but whose procedures are documented and results recorded.

To achieve the overall objectives of this improvement, it will be improved in the following steps:

- Step 1
 - ISRM Capability 1
 - SLM Capability 1
- Step 2
 - SPM Capability 1
 - ISRM Capability 2
- Step 3
 - SLM Capability 2

6.2.7. Tool support

For the Compute Service the following tools are in use:

- Incidents and technical problems are tracked using RT ticketing system.
- Communication is carried out through direct e-mail, e-mail lists and FGI Roadshows.
- Confluence Wikis are used to store process descriptions and procedures.
- Service Availability and Monitoring is performed by SAM/Nagios, Ganglia, ARC Grid Monitor and other tools provided by EGI.
- Configuration and catalogue of infrastructure components is kept in GOCDB.
- VOM server is used for registration and service access management.

6.3. Cyfronet / PL-Grid

6.3.1. Scope statement

PL-Grid seeks to improve the service management of the Compute and Storage services delivered to PL-Grid Infrastructure users which include both:

- individuals related to Polish Science
- Virtual Organizations registered by EGI

Additional information:

The improvements to be achieved during the implementation phase shall bring the services in question to the following levels of capability.

- Level 1:
 - Supplier Relationship Management (SRM)
- Level 2
 - Service Portfolio Management (SPM)
 - Service Reporting (SR)
 - Customer Relationship Management (CRM)
 - Continual Service Improvement (CSI)
- Level 3
 - Service Level Management (SLM)
 - Incident and Service Request Management (ISRM)

6.3.2. Framework of roles

In planning the improvement of EGI we need to define the roles that will be necessary. These include generic roles and specific ones related to the processes and capabilities we seek.

In planning our improvement to [stage one of the FedSM improvement plan] we define the following generic roles from the FedSM Role Map (D4.1)

- The **Senior Responsible Owner**, who has the overall accountability for all ITSM-related activities and manages the overall ITSM improvement;
- a **Process Manager per process** who is for responsible for their respective ITSM process (e.g. the process of incident management);
- a Case Manager is responsible for one specific case occurring in a process context (e.g. one specific incident to be resolved);
- members of **Process Staff for each process**, who carry out defined activities according to established procedures (e.g. the activity of prioritizing an incident) [note – staff can work on multiple processes];
- a **Service Owner per service** who is responsible for a specific service which is part of the service catalogue (e.g. the service of providing computational resources);
- an **Internal ITSM Consultant** who consults the Process Managers in defining (setting up) and improving their processes;
- an **Internal ITSM Auditor** who assesses conformance with the requirements and conducts process audits to ensure effectiveness and compliance of processes.

From the above information we foresee the following specific roles. At this stage we do not provide names for process staff, just for named roles:

- General roles
 - Senior Responsible owner – Marcin Radecki
 - Compute Service owner – Marcin Radecki
 - Storage Service owner – Marcin Radecki
 - Internal auditor – Tomasz Szepieniec
 - Internal ITSM consultant – Tomasz Szepieniec
 - Service Portfolio Management (SPM)
 - Service Portfolio Manager - Marcin Radecki
- Service Level Management (SLM)
 - Service Level Manager – Magda Szopa
 - SLM Case manager – all SLAs are of the same kind – no need for case manager
- Service Reporting (SR)
 - Service Reporting Manager – Anna Golik
- Customer Relationship Management (CRM)
 - Customer Relationship Manager – Magda Szopa
- Supplier Relationship Management (SRM)
 - Supplier Relationship Manager – Magda Szopa
- Incident and Service Request Management (ISRM)
 - Incident and Service Request Manager – Tadeusz Szymocha
 - ISRM Case Manager, for security cases – Adam Smutnicki
- Continual Service Improvement (CSI)

- Continual Service Improvement manager – Marcin Radecki

6.3.3. Services to be improved

Storage Service

Storage services are provided by PL-Grid which federates resources provided by 5 Polish compute centres to PL-Grid Infrastructure users. The service consists of the following core components:

- Network access
- Data management system (hardware + software)

In addition the service has the following additional or optional components:

- Tape drives
- Backup services

The service is currently provided on the basis of PL-Grid SLAs between PL-Grid users and PL-Grid Operations Centre.

Compute Service

Compute services are provided by PL-Grid which federates resources provided by 5 Polish compute centres to PL-Grid Infrastructure users. The service consists of the following core components:

- Network access
- Compute nodes
- Service nodes

In addition the service has the following additional or optional components:

- Infiniband connectivity
- enhanced RAM
- GPU capability
- virtual SMP

The service is currently provided on the basis of PL-Grid SLAs between PL-Grid users and PL-Grid Operations Centre.

6.3.4. Framework of processes and process interfaces

See section 5.4, "Example" – no refinements

6.3.5. Service management objectives

See section 5.5, "Example" – no refinements

6.3.6. General schedule

Milestones and general timeline:

- March 2013 – Baseline process assessment framework available
- April 2013 – Process maturity baseline complete
- May 2013 – Detailed schedule of tasks based on logical order for process capability achievement

- September 2013 – Interim progress assessment
- February 2014 – Stage one completed

Logical order for process capability achievement:

In order to achieve improvement, changes must be tackled in a logical order. This means moving up through the capability levels in order. In general these levels are:

- Capability 1: create awareness of tasks related to the process; ensure individuals take action to manage these tasks on at least a reactive basis.
- Capability 2: establish intuitive procedures for the process that create positive results
- Capability 3: establish defined procedures for the process that not only create positive results but whose procedures are documented and results recorded.

To achieve the overall objectives of this improvement, it will be improved in the following steps:

- Step 1
 - ISRM Capability 1
 - SLM Capability 1
- Step 2
 - SPM Capability 1
 - ISRM Capability 2
- Step 3
 - SLM Capability 2
 - SR Capability 1
 - CRM Capability 1
- Step 4
 - ISRM Capability 3
 - SLM Capability 3
 - CSI Capability 1
- Step 5
 - SPM Capability 2
 - SR Capability 2
- Step 6
- CRM Capability 2
- CSI Capability 2
- SRM Capability 1

6.3.7. Tool support

For the Compute and Storage services the following tools are in use:

- Incidents and technical problems are tracked using RT ticketing system
- Service Availability Monitoring is performed by SAM/Nagios monitoring system
- Communication is carried out through jabber instant communication service, direct email and Mailman email lists.
- Confluence Wikis are used to store process descriptions and procedures.
- JIRA is used for project management and task tracking.

- Configuration and catalogue of infrastructure components is kept in GOCDB
- User Portal for registrations and service access management
- Grid Resource Bazaar portal for SLM

Version History

Version	Date	Author	Change record
1.0	31.01.2013	T. Schaaf	Final version after internal review
2.0	17.10.2013	T. Schaaf	Major update after finalization of FitSM-1 and -2