COMP5138 Individual Assignment on ITIL

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Part A (The quality improvement customers didn't want)

Benefits

From Jack Zadow, the consultant:

1. More efficient reception process: "Everything is done electronically: The computer pulls the member's record, processes the new information, and then routes the member to the appropriate staff person for consultation."
2. Free the staff out from tedious routine work and thus make them more productive in actual health care consultation: "Your staff will he able to devote more energy to making sure that each patient receives prompt, unhurried, personal attention."
3. Higher customer retention: "it's paying for itself in increased customer retention over the long term."
4. Output standardized record: "They're also going to upgrade so that the computer will be able to produce records that can be standardized for insurance companies."
5. The image of the service quality improves: "Remember, the top two HMOs in this region are installing this system. Quality Care is the number three player - you can't afford to look as though you're behind the times."

From Pat Penstone, CIO of Quality Care:

1. The first contact implies the quality of the whole service and is thus critical: "what if a patient assumes that because we're not high tech with our sign-in procedures, we're also not up to speed on our medical procedures? The reception area, taken alone, isn't a big deal. But as a part of our whole offering, it's critical. It's the first thing our customers see. It tells them what we are and how we work."
2. Upgrade to such systems is inevitable, better not to be late: "we'll have to install a system like this at some point anyway, as soon as the government or the insurance companies decide that it's the way to go. Once a method is standardized, we don't want to be playing catch-up"

From Allan Moulter, CEO of Quality Care:

1. The employees of Quality Care like the idea and would be happier with the

upgrade: “The administrative staff thought that a computerized reception area would make their jobs easier. And the nurse practitioners have so many routine procedures to do that they're just racing patients by on a conveyor belt. They thought the system would give them time for the human touch.”

Concerns

From Allan Moulter, CEO of Quality Care:

1. The difficulties in the service transition: “How is HealthCare One handling the transition?” “... we're talking about an important change in a lot of daily routines. We have just under 3,000 employees and 200,000 members. Think of the procedural changes. The timing changes.”
2. The real impact of the new system: “How has it measured the improvements in service quality?”
3. Financial costs: “How much has the company invested in training? Computer consultants? Trouble-sbooters?”
4. How does the new system affect the number of administrative staff necessary? “And with more automation, wouldn't we want to think about cutting the administrative staff by what, by two at each facility? Four? Six?”
5. The reason why HealthCare One does not cut administrative staff is unknown. Jack just points out the fact that “HealthCare One isn't cutting staff”. But he does not further explain what those staff switch to do after some of their job is taken by computer systems.
6. Too demanding to make the switch: “The system ... would run the company more than $350,000.” “What's more, the network would have to operate across all of our locations. ... tackle a whole host of ancillary projects ... like rethinking the design of our reception areas and our workstations.”
7. Not sure if the new system will lead to higher customer retention since that is pretty high without the upgrade: “86% of our customers are either a four - that's satisfied - or a five - that's completely satisfied.”

From Ginger Rooney, vice president of marketing at Quality Care:

1. Members show that they do not like systems of this kind in previous special survey about 18 months ago. “We looked into a similar system then and dismissed the idea. We took the concept to our members in a special survey and they said they'd hate it.” “We spent a lot of time and money on that special study - why are you so willing to disregard it?”

2. If human receptionists are kept for elderly people who dislike automation, the process is even more complicated. This is neither cost saving or quality improvement.
3. Automatic production of standardized report is unreliable. “I'll bet half the time, the patients enter information incorrectly anyway. Someone would have to double-check the files on a daily basis.”

From Pat Penstone, CIO of Quality Care:

1. The validity of customer survey is in question. “I have some serious doubts about the way all of those customer satisfaction surveys are carried out.” “I just don't have a sense that any of that information is to be trusted.”
2. Customers will not form their final decision whether they like or dislike the new reception system until they see and use it. “... people will recognize quality care when they see it.”
3. Customers’ views are always changing. It may not be suitable to base the decision on survey results 18-month old. “You say you're thinking of the bottom line, but which one? Today's or tomorrow's?”

My view

Quality Care should adopt the new electronic reception system.

Automated system will provide faster & standardized service previous done by human beings through routine tasks. The advantages are lower costs, easier management, smaller risk and happier staff and customers.

First, for tasks like gathering basic customer information through ID card scanning really does not rely on human operations. Computers can do this faster and more stable. Waiting time is apparently a factor affecting customer satisfaction of the service. Quality Care is aware of this and has been asking questions like “Were they waiting too long to see a doctor?”

Second, if the customer just want a report for the insurance company, he or she does not need to wait for some doctor to do this. Having this report generated by computer system not only saves the time of this particular customer but also shortens the time other customers have to wait. The doctors would also be happier not to deal with those repetitious work.

Third, computers are cheaper than human labor in the long run. Even if multiple hot spares are prepared for the reception system, it could still be less costly than hiring multiple human receptionists to do the job. And “training” a large number of computer to do the same

reception job is not more difficult than “training” just one. Duplicates can be easily created for computer systems. But this can never be true for human beings. Each receptionist needs to be trained at a cost. In this way, using computer systems saves a lot when the company has massive needs for receptionists.

Fourth, managing the computer system is easier than managing human receptionists. The consistency of service quality can be guaranteed with automated system but not with humans.

Concerns about the new system mainly comes from two sources: whether it is cost effective and whether customers will like it.

For the cost concerns, Allan’s concern about network syncing among all locations should not affect the decision here much. Even if reception system does not require the systems at different locations to communicate, there is still need to exchange data among different Quality Care branches. For instance, someone moved to another apartment or a new branch is open making some customers of another branch to switch to this new one because it’s closer.

It’s hard to tell whether the customers will like it or not with the given information. None of the existing surveys can tell.

Allan mentioned that 86% of the customers are either a four or a five on the five-point scale when it comes to customer satisfaction. He seems pleased with that. But is 86% really a high percentage for that? What is the percentage of five only? If a customer does not want to be neutral (three), he or she automatically gives a four. Some research show that only fives are loyal customers. So there is still room for improvement.

Ginger says that in a previous survey, customers do not like a new system. Bear in mind that people are more often conservative about things they’ve never seen, touched, used before. It is not surprising the survey will end up with such a result. Only after some prototype testing with customers, can Quality Care administrators know for sure whether the new system makes sense to customers. Letting them choose without any detailed knowledge about what the system is like, what it can do, how long the procedure lasts, is not a scientific survey question.

As mentioned in Ginger and Pat’s conversation, customers are not the same. Old customers may dislike what young ones like. The same customer may like something today that he or she dislikes a day before. Their preferences are constantly changing. Some customer may prefer the speed and accuracy of computer reception system. Others may prefer the

comfort and caring from human receptionists. If it is not affordable to cover both needs, a computerized reception system will provide a more streamlined, more reliable, less stressful and in many ways more enjoyable overall experience for the incoming customer. The comfort and caring is still available in consultation with doctors. And because of the faster automated reception system, the customer may have more time to consult the doctor, thus increase the satisfaction rate since the consultation is the most critical part of the whole service.

Part B (Outsourcing at Office Supply Inc. (OSI))

Existing Challenges and Benefits of Outsourcing

Financial Management

The existing challenges are:

IT expenses increase while earnings stop growing. “OSI … was experiencing its second consecutive year of flat earnings. Its stock price was down 52 percent …” “Our current IT spend is about 4 percent of sales and has been steadily increasing over the past year ”

Complex application dependency would possibly increase future costs of additional applications. “Most applications at OSI were developed and maintained by a small number of applications-development outsourcing companies.”

Increasing hardware/infrastructure management cost. “… the company’s IT division continued to rely on its internal staff to set up new data centers, upgrade existing ones, and improve all-around performance …”

continually upgrade skill sets of internal IT staff is very costly

employee morale begin to deteriorate, retention of talented staff is challenging

Overall, too much resources are trapped in IT infrastructure maintenance instead of its core business.

The existing 700+ server platforms vary in operating systems and configurations. Due to lack of strategic design, more servers are used than necessary. This increase the costs related to server hardware/software/maintenance. “The result was a complex and underused infrastructure that was … very expensive to maintain.”

OSI's servers and workstations are connected through a fiber backbone and leased lines based on flat-fee contracts. "the company did not realize economies of scale and paid much more per usage in certain sections of its communication network."

Benefits of outsourcing are:

Cost savings come from three primary categories:

compensation(salary, benefits, and overtime pay)

- "The specialized training of TIS engineers made it possible for fewer people to do the same amount of work."
- "In addition, TIS was located in Denver, which meant a lower cost of living and hence, lower salaries than the Chicago-based OSI."
- "Lastly, TIS could assign personnel to a variety of projects, making the best use of their time. This helped save money not only in direct salary expenses but also in related costs such as overtime (6 percent of salary expenses) and overhead (26 percent)."
- "OSI currently employed 213 people for activities related to infrastructure maintenance; the same tasks could be accomplished by about 130 people at TIS"

hardware purchase and maintenance

- "through the more efficient management of their storage"
- "TIS could procure servers from the manufacturers at a lower price than OSI could, thus lowering capital expenditure and depreciation"
- "eliminate charges incurred by installation services because of its internal capabilities to handle these activities"

other miscellaneous expenses such as software, network, facilities, disaster recovery, and corporate overhead

- "'ower OSI's software costs because of its bulk purchase rates with vendors"
- "lower networking costs by sharing across clients its existing leased lines connecting cities"
- "(TIS) more effectively manage floor space, heating and air conditioning, and power consumption, and its facility was located in a less expensive city"

- "fewer disaster recovery and corporate overhead costs because it (TIS) had more efficient management and economies of scale"

Optimal resource allocation. OSI can redirect a lot of resources from internal IT division to its core business after the infrastructure migration.

Performance Management

The existing challenges are:

The existing 700+ server platforms vary in operating systems and configurations. "The diverse mix of platforms made it difficult to manage the infrastructure to derive optimal results." "The result was a complex and underused infrastructure that was also inflexible, poorly integrated …"

The data and voice lines leased cannot achieve significant volumes in all segments. Neither can it deal with potential bursts in access intensity.

Benefits of outsourcing are:

Improved service performance and quality

Outsourcing companies provide the domain expertise to help their clients define the requirements for an appropriate and effective solution. These providers have the required capabilities to define scalable and high-performance architectures, develop the solution, provide program- and project-management experience to oversee the entire process, and deliver on-time, on-budget business solutions.

IT infrastructure management firms are able to optimally deploy their skilled teams to provide expertise managing the complex IT infrastructure of companies. These firms provide services to manage the infrastructure -- servers, databases, applications, and networks -- and to ensure that the IT environment is available around the clock, supporting both operations and users and auditing infrastructure to ensure high performance and mission-critical security.

The reduction—possibly even the elimination—of operational errors and inefficiencies is one of the most important advantages of outsourcing. "TIS employed seasoned staffs who adhered to rigorous and well-documented "run book" methodologies. The result was deep experience and consistent discipline that translated directly into improved reliability in system access and repeatability of expected outcomes."

Outsourcing provides certificated, more professional staff for server performance tweaks. “TIS engineers, who were highly trained in providing these services, could do a better job of regularly tuning system performance and supervising usage of CPU, memory, and storage.”

TIS is more experienced at providing secure services. “The company’s past experience at automated incident-handling mechanisms, including reconfigurations of firewalls, could help OSI achieve a more secure network. Based on periodic event analysis and recommendation reports from TIS, OSI could restructure its critical services and enhance the overall security and performance of its systems.”

Configuration Management

The existing challenges are:

Current configuration is not optimal with a mix of different server platforms (Sun/IBM/Intel) “The servers were maintained through a series of patches and quick fixes, leading to an unscalable, non-standardized, and sub-optimized configuration whose inflexibility was a hindrance to information sharing.”

Current configuration scheme does not well support frequent changes in requirements. “In recent years, the infrastructure had evolved in a haphazard, piecemeal fashion—that is, in response to the needs of specific business units rather than as the result of careful execution of a comprehensive infrastructure strategy.”

Benefits of outsourcing are:

- Consistent configuration among servers. TIS can use the same server platform for different applications/services requirements from different clients.

Incident Management

The existing challenges are:

As the infrastructure grow in complexity, it is “difficult to deliver secure and uninterrupted access to its services” and “responsiveness started to suffer”.

Benefits of outsourcing are:

- Turnover of risks from OSI to TIS. Even though OSI has done a good job managing risks in outsourcing application software developments, the risks are still on OSI’s side. After outsourcing the infrastructure to TIS, TIS is responsible to deliver the services/applications on time that meet the requirements.
- More responsive to server failures. TIS engineers are more experienced at their

own field than OSI's own staff.

Other Issues

There are still some remaining concerns unresolved in Anfield's proposal.

- Wagner want hard numbers rather than theoretical figures.

  The probability to realize all the potential cost savings is in doubt. As OSI's requirements is always changing, Anfield's estimation based on a two-week investigation may suffer from all kinds of errors. The growth rate in the assumptions may not equal the actual numbers in the following years. Server growth and storage growth assumptions (2%) are somewhat too low.

  Even if the estimation is scientific and reliable, there is always a gap between design and execution. TIS staff are more professional at IT services than OSI staff. But on the other hand, they are less familiar with the specific requirements of the OSI, thus making it more crucial to define all the requirements. If OSI does not know for sure what the requirement of next month, quarter or year is, the requirements needed by TIS can be inaccurate, incomplete, sometimes misleading, so that the actual cost exceeds the estimation.

- Wagner is adamant about realizing short-term savings.

  Though outsourcing promises long-term benefits, it contains certain unavoidable additional costs initially. "A new outsourcing deal carried many transaction costs, including those involving"

  organizing tenders

  signing contracts

  determining legal matters (e.g., ownership and copyright)

  freight expenditure to transport hardware

  double salary in knowledge transfer period, during which personnel of both TIS and OSI would be working simultaneously.

  "These up-front costs often caused the cost savings of the deal to be negative during Year 1."

  This contradicts with Wagner's need for a significant cut in costs in short-term.

  If Anfield managed to restructure the deal to provide a cost reduction in the first year, it may not be the optimal solution for the long term. In other words, OSI has to sacrifice more long-term benefits for the short-term one.

- Harden is apprehensive about the human resource issue.

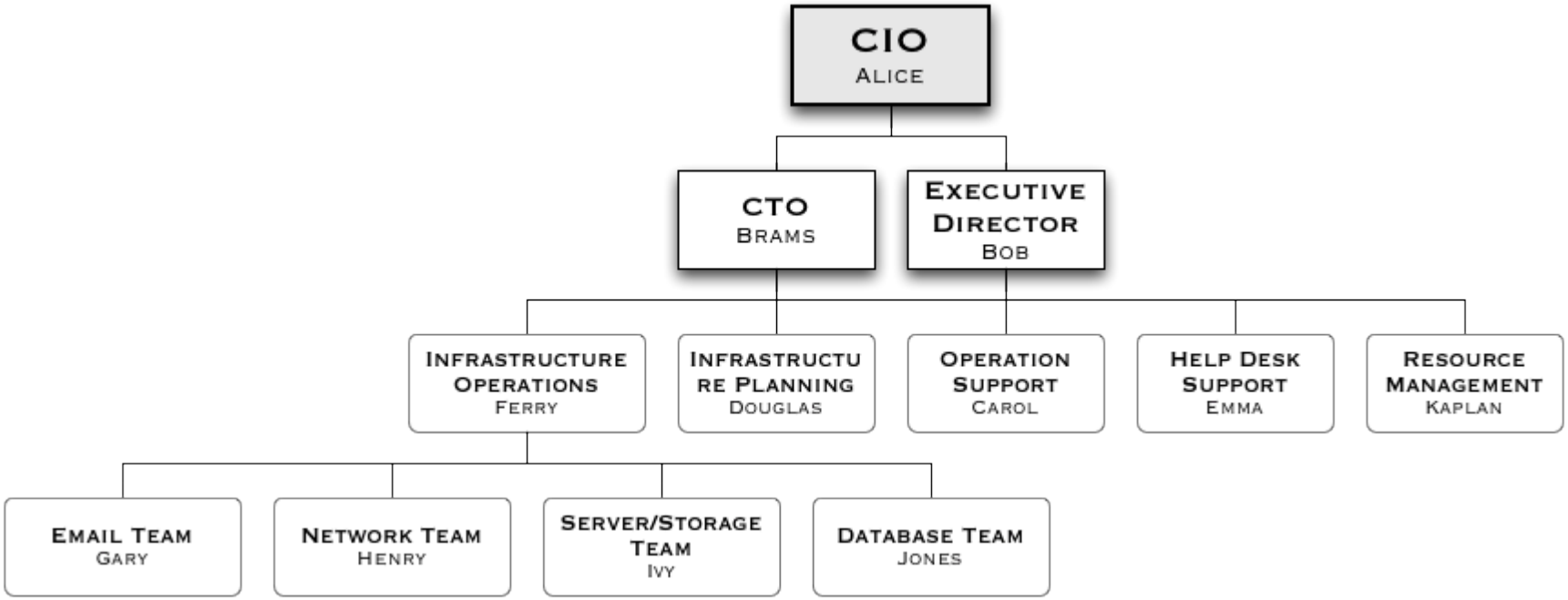
  As the CIO, Harden is leading the internal IT staff to provide the current

infrastructure. If the whole infrastructure is outsourced to TIS, the internal IT staff becomes redundant resources for the company. Financial resources originally invested in IT can be easily redirected to other divisions, human resources are totally different. OSI has paid a lot to train these staffs and the returns will diminish with the outsourcing deal.

Also, the role of Harden himself will change. He would not worry about the application development/hardware maintenance/software configuration issues any more. But communications between OSI and TIS becomes critical for the service. The additional dependency on a third party weakens his control over the whole infrastructure while the responsibility to ensure the service quality remains the same.

Part C (Infrastructure support organization)

Organization Chart


CIO
Alice
CTO
Brams
Executive Director
Bob
Infrastructure Operations
Ferry
Infrastructu re Planning
Douglas
Operation Support
Carol
Help Desk Support
Emma
Resource Management
Kaplan
Email Team
Gary
Network Team
Henry
Server/Storage Team
Ivy
Database Team
Jones

Roles and responsibilities

- CIO

  Responsibility:

  a. Report to CEO/CFO on IT infrastructure and costs;
  b. Provide advice and assistance to senior managers on IT acquisition and management;
  c. General design and maintenance of a sound and integrated IT architecture;
  d. Direct the IT infrastructure design to better meet the needs of the whole company's goal;
  e. Design the IT policy;

- CTO

  Responsibility:

  a. Report to CIO on technical solutions/issues to service requirements;
  b. Provide advice and assistance to senior managers on technical problems;
  c. Technology assessment on existing applications/services;
  d. Make decisions about the technology to adopt in system implementation

- Executive Director

  Responsibility:

  a. Report to CIO on operation issues;
  b. Coordinate among different functional units;
  c. Promote communication between the functional units and CIO

- Resource Management

  Responsibility:

  a. Allocate resources to different teams to achieve best cost effective services

- Infrastructure Planning

  Responsibility:

  a. Report to CIO and CTO on the detailed infrastructure design;
  b. Based on CIO's general design and CTO's technology choice, plan ahead about the organization of the infrastructure

- Infrastructure Operations

  Responsibility:

  a. Report to executive director about the project progress;
  b. Coordinate among different service/application teams;

- Operation Support

Responsibility:

a. Provide support to requests with in the IT department

- Help Desk Support

  Responsibility:

  a. Provide support to requests from other departments in the company

- Email/Network/Server/Storage/Database Teams

  Responsibility:

  a. Based on the requirements, implement the according systems for another team or endusers.

ITIL roles

1. (Title in the org chart) CIO, CTO

   (ITIL role) **IT Steering Group (ISG)**

   - The IT Steering Group (ISG) sets the direction and strategy for IT Services. It includes members of senior management from business and IT.
   - The ISG reviews the business and IT strategies in order to make sure that they are aligned.
   - It also sets priorities of service development programs/ projects.

2. Resource Management

   Financial Manager

   - The Financial Manager is responsible for managing an IT service provider's budgeting, accounting and charging requirements.

3. Email/Network/Server/Storage/Database Team Leaders or Key Staffs

   Service Portfolio Manager

   - The Service Portfolio Manager decides on a strategy to serve customers in cooperation with the IT Steering Group, and develops the service provider's offerings and capabilities.

4. CIO, Infrastructure Planning

   Service Level Manager

   - The Service Level Manager is responsible for negotiating Service Level Agreements and ensuring that these are met.
   - He makes sure that all IT Service Management processes, Operational Level Agreements and Underpinning Contracts are appropriate for the agreed service level targets.
   - The Service Level Manager also monitors and reports on service levels.

5. Email/Network/Server/Storage/Database Team Leaders

   Service Owner

   - The Service Owner is responsible for delivering a particular service within the agreed service levels.

- Typically, he acts as the counterpart of the Service Level Manager when negotiating Operational Level Agreements (OLAs).
- Often, the Service Owner will lead a team of technical specialists or an internal support unit.

6. Email/Network/Server/Storage/Database Team Leaders

   Service Design Manager

   - The Service Design Manager is responsible for producing quality, secure and resilient designs for new or improved services.
   - This includes producing and maintaining all design documentation.

7. CTO

   Technical Analyst

   - The Technical Analyst is responsible for designing infrastructure components and systems required to provide a service.
   - This includes the detailed specification of technologies and products as a basis for their procurement and customization.

4. CIO, Resource manager

   Capacity Manager

   - The Capacity Manager is responsible for ensuring that services and infrastructure are able to deliver the agreed capacity and performance targets in a cost effective and timely manner.
   - He considers all resources required to deliver the service, and plans for short, medium and long term business requirements.

8. Email/Network/Server/Storage/Database Team Leaders or Key Staffs

   Change Manager

   - The Change Manager authorises and documents all changes in the IT Infrastructure and its components (Configuration Items), in order to maintain a minimum amount of interruptive effects upon the running operation.
   - In the case of further-reaching changes, he involves the Change Advisory Board (CAB).

9. Executive director, Email/Network/Server/Storage/Database Team Leaders and representatives from other departments

   Change Advisory Board (CAB)

   - A group of people that advises the Change Manager in the Assessment, prioritisation and scheduling of Changes.

10. Email/Network/Server/Storage/Database Team Members

    Application Developer

    - The Application Developer is responsible for making available applications and systems which provide the required functionality for IT services.
    - This includes the development and maintenance of custom applications as well as the customization of products from software vendors.

11. Email/Network/Server/Storage/Database Team Key Staffs

    Release Manager

    - The Release Manager is responsible for planning, scheduling and controlling the movement of Releases to test and live environments. His primary objective is to ensure that the integrity of the live environment is protected and that the correct components are released.

12. Email/Network/Server/Storage/Database Team Key Staffs

    Configuration Manager

    - The Configuration Manager is responsible for maintaining information about Configuration Items required to deliver IT services.
    - To this end he maintains a logical model, containing the components of the IT infrastructure (CIs) and their associations.

13. Help Desk Support

    Incident Manager

    - The Incident Manager is responsible for the effective implementation of the Incident Management process and carries out the corresponding reporting.
    - He represents the first stage of escalation for Incidents, should these not be resolvable within the agreed Service Levels.

14. Operation Support

    Problem Manager

    - The Problem Manager is responsible for managing the life-cycle of all Problems.
    - His primary objectives are to prevent Incidents from happening, and to minimize the impact of Incidents that cannot be prevented.
    - To this purpose he maintains information about Known Errors and Workarounds.

15. CIO

    CSI Manager

    - The Continual Service Improvement (CSI) Manager is responsible for managing improvements to IT Service Management processes and IT services.
    - He will continually measure the performance of the service provider and design improvements to processes, services and infrastructure in order to increase efficiency, effectiveness, and cost effectiveness.

16. CIO

    Process Architect

    - The Process Architect is responsible for maintaining the Process Architecture (part of the Enterprise Architecture), coordinating all changes to processes and making sure that all processes cooperate in a seamless way.
    - This role often also supports all parties involved in managing and improving processes, in particular the Process Owners. Some organizations combine this role with the Enterprise Architect role.

17. CIO, Infrastructure Planning

Process Owner

- A role responsible for ensuring that a process is fit for purpose. The Process Owner's responsibilities include sponsorship, design, and continual improvement of the process and its metrics.
- In larger organizations there might be separate Process Owner and Process Manager roles, where the Process Manager has responsibility for the operational management of a process.

18. Staff of other departments in the company

Service User

- A person who uses one or several IT services on a day-to-day basis.