ITIL® V3 Simulation

Process learning and teambuilding in one single event

The Technical University of Denmark (DTU) has participated in an intensive ITIL® V3 simulation. This has clearly illustrated that DTU's IT organisation can increase their efficiency and improve the quality of their services by standardising processes.

During the past 3 years, the Technical University of Denmark (DTU) has merged with a number of other research institutes from all over the country. As a consequence of this fusion, the number of employees has almost doubled from approximately 2,500 to 4,500. Furthermore, many of DTU's institutes have been consolidated over the past 5 years into the current 18 larger institutes. Now, DTU has started merging different staff functions, including IT operations.

As a consequence of these changes, DTU's IT organisation (AIT) has grown from approximately 20 to 70 employees in merely 2 years (2007-2009). Before the fusion, each institute had its own IT department with its own service desk and servers together with individual procedures and IT processes. AIT was a small unit supporting 250 to 400 employees in DTU's administration building. Due to the fusion, DTU's management has now set clearly defined goals for standardising the IT infrastructure across the entire university. Therefore, AIT has been given the task of optimising their IT operations in order to be able to deliver better and more uniform services to all IT users.

Delivering more uniform and coordinated IT operations for the entire university will also give DTU a number of strategic advantages. Section Manager for Project and System Management in DTU's IT Department, Egon Loke, explains: "If DTU is interested in winning larger research funds from the European Union, we will have to increase our focus on research and on the collaboration between experts from different institutes. And if all institutes have different IT solutions, it is incredibly difficult to work together efficiently. Therefore, our management is also interested in breaking down IT barriers across all institutes and departments in order to create better working conditions for DTU's employees.

DTU is a leading technical university in northern Europe and benchmarks with the best universities in the world. The internationalisation of DTU continued with more than one fifth of DTU's scientific staff being recruited from outside Denmark and with an increasing number of international students.

Danmarks Tekniske Universitet

DTU

Optimisation requires a shift in organisational culture

According to Egon Loke, the ongoing consolidation of IT functions has created a number of challenges for AIT: "We came from a small and very innovative unit, where everybody knew each other personally, and our processes were informal and undocumented. This meant that we were not able to repeat the same processes with the same quality, so some customers received fantastic services, while others did not. During the past couple of years, more and more fire fighting resulted in stressed employees as well as several minor and a few major IT disasters."

As a consequence of the fusion, the entire IT organisation is now going through a large-scale cultural transformation in terms of managing IT operations. In order to cope with the new challenges, AIT will have to move away from a fire fighting culture and a chaos-pilot identity: "Our systems have not always been reliable," says Egon Loke. "Simple upgrades (changes) could easily shut down the power in our server room. And our lack of agreements for managing technical system changes could bring IT operations to a complete standstill."

Another cultural transformation AIT is working towards is breaking down the silos they currently work in. Egon Loke explains: "With only 20 employees 2 years ago, Operations rarely talked to Support; Support hardly ever talked to Development. There was hardly any communication between these different worlds. When cases crossed team borders, they sometimes disappeared into a black hole. Now, we are 70 employees, half of whom are relatively new and do not know the old ingrained routines."

ITIL® simulation kick-starts organisational transformation

In order to kick-start this culture shift, AIT offered all their employees the chance to participate in an ITIL® simulation held by MATERNA. The goal was both to promote team-building – getting to know your colleagues in other ways than in daily work – and to illustrate the advantages of working according to standardised processes. Furthermore, the ITIL® simulation was intended to provide the employees with a common terminology and illustrate a different role distribution than the current one. Egon Loke explains: "We wanted to illustrate that we – as a unit – are on a journey: We started with 20 employees who had been working together for many years handling a lot of work by doing "intuitive" IT. Now, we are a large department with 70 employees who do not know each other and are geographically spread across the country. If we do not change the way we work, we will collapse – both in terms of stress and in terms of the service quality we deliver to our customers. Therefore, we have to break with the old culture."

For Egon Loke, the simulation was one element in the process of creating awareness about the necessity for change: "If we change and focus on more standardised processes and more structure, we can handle so much more. Cost-effective IT operations and support is only possible with standardised processes. We cannot have 6 back-up procedures, 8 different PC-setup methods, and 5 different ways of handling support issues. By standardising and optimising our processes, our employees can spend their energy on being innovative in other areas than routine tasks. And that was exactly what MATERNA demonstrated so clearly with this ITIL® simulation.

The simulation day

In total, 40 out of the 70 employees participated in 2 ITIL® simulations that MATERNA ran simultaneously. This gave the simulation a competitive element that Egon Loke would definitely recommend to others: "The competitive element was very motivating, no doubt about it. Both groups were physically close to each other, and throughout the day they were able to compare scores and find out how much money each team had earned. I would highly recommend other organisations to run the simulations simultaneously, if they have enough participants for 2 or more groups, since this contributed to extra commitment and suspense."

The simulation day was a great opportunity for DTU to reflect on their current working methods and to get inspiration for efficient improvements. Through 5 rounds, the participants went from chaos to structure and learned how to solve different tasks as quickly as possible and in the correct way. For Egon Loke and his department, the most important lesson was that standardised processes can actually help them work more efficiently, while at the same time improving the quality of their service: "The most important signal I wanted to send with this simulation was having people say: wait a minute, in the first round, we only received 5 cases, and everything was pure chaos. Then, gradually, we learned how to adjust our processes, break down silos between different units and prioritise between very critical and less critical incidents. In the fifth and final round, we received approximately 50 cases, and people might nearly have got bored, because they were solving all the cases so quickly. This goes against everything we have been used to. For how could this be possible? More cases would normally mean that people were busier, but we actually weren't. So what was different? The way we handled all cases in a structured and consistent way every time. That was really an eye-opening experience."

Silo break-down and SLA adjustment

Another significant lesson for the participants was the importance of breaking down the silos they were used to working in. The employees started to talk to each other and gained an insight into and understanding of each other's work. For management, it was also interesting to observe that there was a difference in how the teams handled the challenges. Egon Loke explains that the most successful group was the one who broke down the team barriers: "One group practically merged supporters and technicians. This was very interesting, since this is exactly what we have to do. Support and Operations have to be integrated much better, and that happened basically on its own, which was fantastic for me to observe." Based on the simulation, AIT has now established an operational forum between Support and Operations, in which the participants will discuss how to break down the silos in future.

As a brand new thing in ITIL® simulations, the tool used here also contains an element for adjusting the level of service agreements – the so-called SLA tuning. One of the groups worked out that they could not deliver the level of service they had agreed with their business. Therefore, they decided to scale down the service level to a degree that they could handle. Instead of 99 percent uptime they offered 95 percent uptime.

The importance of change and configuration management

The participants also experienced how they could optimise their processes by working systematically with change and configuration management. The simulation clearly illustrated why changes have to be planned, approved, registered and communicated to the right people. Furthermore, the participants realised the crucial role a configuration management database (CMDB) plays as the central place for viewing relations between different installations and connected users. Among other things, they learned that the CMDB can tell support which users to contact if a specific server or application breaks down. After the ITIL® simulation, DTU has placed change and configuration management high on their agenda.

The organisation

The Technical University of Denmark (DTU) is a leading technical university in northern Europe offering education, research, science-based consultancy and innovation. The university's main tasks are carried out by 18 institutes and a national laboratory in Lyngby north of Copenhagen and other locations across the country.
DTU employs approximately 4,500 people and offers education to 7,000 graduate students. With extensive research activities within classical engineering and new especially promising areas of research, DTU ensures a high level of international technical and natural science. DTU aims at always having a position among the top 10 technical universities in Europe. Furthermore, the Technical University of Denmark provides research-based consulting services to Danish and international public authorities and institutions.

DTU's IT organisation (AIT)

DTU's IT organisation (AIT) supports and develops IT solutions and services for the entire university. AIT's main task is to provide service and support for DTU's central administrative IT systems for e.g. finance and human resources. Furthermore, AIT is responsible for service and support on DTU's IT infrastructure and on PC workstations around the campus area.
AIT supports and develops DTU's areas of business and ensures that DTU's IT solutions perform as agreed. AIT's goal is to contribute to creating attractive conditions for education, research and innovation at the Technical University of Denmark by providing stable IT operations, being proactive, and keeping up to date on potential technological developments.

"The ITIL® V3 simulation facilitated by MATERNA has clearly illustrated that we can work more efficiently and improve the quality of our services by standardising our processes. This has really been an eye-opening experience."

Egon Loke, Section Manager for Project and System Management,
IT Department at the Technical University of Denmark (DTU)
(in the background: his project office)

Surpassed expectations

The ITIL® simulation held by MATERNA was one initiative of many aiming at bringing competency, processes and systems to DTU's IT organisation. Now, the employees have not only gained a first understanding of the advantages of working according to standardised processes, but also a common terminology and language for handling these processes. While the same support case could be handled in 7 different ways before the simulation day, DTU will now define one single procedure for every case. Thus, the simulation day has illustrated that is it possible to work more efficiently, solve more cases faster, and provide better and more uniform customer service.

According to Egon Loke, the ITIL® simulation and MATERNA's facilitation of it has fully lived up to DTU's expectation: "Completely and entirely. We even got our team scores on the same day, so we could hold an award ceremony at our joint dinner event. We are the living proof that it is possible to learn a lot in one day, while having fun along the way. Since the simulation, we have introduced new roles in our organisation. Now, we will start changing our processes and implement them in our new organisation." ■

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