Modern IT:
Is it possible to forego employees and infrastructure?

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By developing a flexible and efficient strategy to address current requirements, companies must fundamentally reorganize their IT infrastructures. This article discusses three possible application scenarios of Modern IT: Bimodal IT, IT Factory and Zero IT.

Competitive pressures are steadily increasing. It means that today's IT must be positioned so it can respond to ever accelerating and individual business demands and provide the appropriate services. At the same time, IT costs must be kept in check or even reduced. No wonder many IT department managers are caught between a rock and a hard place.

Three important areas of Modern IT

The "Modern IT" concept is one possible approach. It is based on the idea that companies must pay attention to three interlinked areas to ensure the successful implementation of the digital transformation - namely employees, skills as well as data and technology. Because even the best employees are unable to keep up with the competition if systems are too slow, or if they fail. And even the best developers armed with extensive analytical data cannot build fail-safe and high-performance applications if the development processes are not ideal.

Therefore, companies must analyze all three areas and must use the available potential in order to move ahead of the competition with agile processes and to lay an essential foundation for long-term success. This is only possible with a restructured IT organization. In this context, they can choose between big all-in-one service solutions and small modules - a bit like big Playmobil sets and flexible Lego blocks.
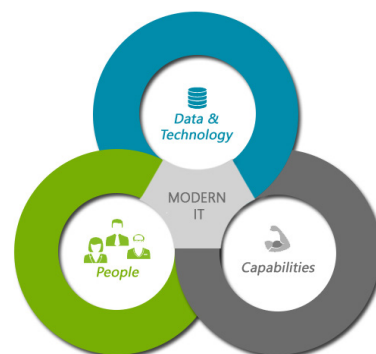
The modern IT framework

- The advantage of comprehensive services is that they are highly-standardized and therefore can be used out of the box. Exact prices can be calculated quite easily. However, these solutions do not normally offer a lot of flexibility in terms of adjustment and redesign.

- Small service modules, on the other hand, offer a lot of flexibility since they can be configured as needed. Depending on the number of modules and the degree of adjustment, prices can vary quite significantly. Companies should also watch that the modules are highly-standardized, so that they can be easily combined and used immediately.

Different scenarios

These two general variants give rise to many concrete scenarios for the configuration of IT departments. The ideal solution will depend on the company's focus on different skills in order to provide the best support for the business activities. Here are three typical examples as a guide:

1 In this scenario, the focus is on always buying (or brokering) the most cost-effective or best IT service with a lot of flexibility and independent of the different providers and using these to create the business service - in this case, the "IT Factory" scenario is often the best approach.

2 Commodity IT should be separate from the Innovation Business IT, so that the departments can work at different speeds while different skills are made available in-house - this is usually an ideal case for the "Bimodal IT" scenario.

3 Another requirement is that as much standardized IT as possible should be outsourced, so that staff can be made available for innovation - this usually calls for the "Zero IT" scenario.

In these examples, there may be combinations and overlaps, depending on the underlying motivations. There are also numerous other variants that can be considered for special cases. But exactly what do these three sample application scenarios look like?

IT Factory

In the IT Factory concept, IT fulfills the role of the Service Broker. This means: Commodity services are traded by the IT department similar to a stock exchange. Departments and employees can change providers for applications, just like an electricity provider. The vision: "IT from the electric socket".

This concept allows for multi-Cloud approaches that are typically depicted with the corresponding orchestration or service integration layers. In this context, defined containers - differently sized electricity packages, as it were - can also be used, and the best provider for a certain time can be determined. The portability of systems is an important factor in this scenario, so that shifting from one provider to another is as easy as possible. To this end, the services must be standardized across different providers, so that - analogously speaking - several electricity providers can be used at the same time, in order to create the optimum packages.

The orchestration layer assigns the requirements provided by the business to the right target environment, and automatically ensures the provision of network, DNS, Active Directory Groups and so on based on good service integration. These are required for e.g. the use and administration of a virtual machine. Now, new resources can be made available quickly and efficiently, and no longer required capacities can be reduced. The responsibility for smooth service provision remains entirely with the IT department.

Modern IT areas of IT Factory:

Data & Technology:
- Infrastructure services / Commodity
- Use of platforms

Capabilities:
- Strong service management / service integration required
- Strong standardization of IT architecture

People:
- Multi-provider environment
- Business with fluctuating needs (e.g. seasonal business)
- IT organization views itself as Service Broker

Advantages:
- Providers can be changed easily
- IT services are procured from the best source depending on the requirements
- IT provides the business with a homogeneous and easy-to-understand service catalog

Bimodale IT

In Bimodal IT, new digital services are developed with agile and rapid processes, and they change over to stable operations as soon as they have reached a certain level of maturity. Using the electricity analogy, new device infrastructures are flexibly tested using a multiple socket outlet and extension cables and connected to permanently installed cables after adequate testing.

Bimodal IT therefore describes an IT organization that integrates DevOps methods, for example to achieve a closer collaboration between development and support. At the same time, other IT teams such as operations and security can also merge to increase the speed and quality of the products that are developed and made available.

Close collaboration between the teams requires the creation of a global IT governance system as well as high-level processes and methods. Moreover, role descriptions including skills and authorities for the new IT positions in the organization and their dependencies must also be developed for the collaboration. This enables stable and classically operated commodity and core systems (such as critical systems with demanding stability requirements e.g. a bank's trading platforms), and also allows for the agile and rapid development of new products, e.g. apps and digital products. As a result, it allows for the creation of a dual-speed IT organization.

Modern IT areas of Bimodal IT:

Data & Technology:
- Mixture of well-defined IT services as well as innovative and new technologies

Capabilities:
- Classic IT service management (stable operations according to defined processes with clear roles / responsibilities, inputs and outputs)
- DevOps and agile development
- Use of scrum and start-up methods for the rapid training of prototypes and solutions (these are transferred to stable processes as of a certain level of maturity).

People:
- Business with a lot of digital competition
- IT organization consists of a classic work team that works according to defined directives, procedures etc., as well as agile project teams that develop rapid solutions.

Advantages:
- Rapid fulfillment of customer needs
- Testing of new ideas and fast practical testing (fail early and often)
- Reduction in risk due to stable and secure operation of core applications and systems

Zero IT

In the Zero IT concept, the company procures highly-standardized IT services as standard Cloud services, which are managed by external partners. Using the electricity analogy, it means that while the supplier company delivers electricity to the house connection, the company's electricians also look after the connection and operation of the devices.

Commodity applications such as office or e-mail, but also mostly standardized services such as ERP and network applications, are well suited for Zero IT. By outsourcing the services, the company can devote more energy to current and future business processes, because the many possible applications for digitization require a focus on the core processes in the context of the business strategy. Success is achieved with the help of Zero IT through:

- the digitization of commercial, technical and administrative processes
- the creation of the required degrees of freedom for new innovations
- the creation of a solid basis in IT for digitization projects
- the development of new business models in a homogeneous, transparent and high-performance business environment

It is particularly in the collaboration between the departments and IT that the digitization of processes also increases the company's attractiveness to new employees. At the same time, the IT department is also relieved of time-consuming and cumbersome routine activities. For example, the provision and management of hardware components form part of the IT services that

are provided by the partners. Standardized IT support is also outsourced to a partner. In principle, the company no longer needs its own infrastructure or internal IT staff, since all services are provided by third parties. But it does need the corresponding expertise for governance and provider management. Similarly, individual application support usually also remains in-house.

Modern IT areas of Zero IT:

Data & Technology:
- Pure use of commodity services in infrastructure and applications

Capabilities:
- Provider management to manage external service provision

People:
- Business with below-average IT dependency (IT is a less critical factor and subject to fewer fluctuations and changes)
- IT organization is reduced to an absolute minimum to manage the providers

Advantages:
- Concentration on the core business
- IT operating risk is transferred to the provider
- Cost transparency and scalability
- Partner can provide rapid support with innovations

Customized solutions required

These three scenarios represent the frequent strategies adopted by IT organizations in order to meet the current requirements for the digital transformation. But companies must be aware that there are no universal standard solutions. The era of "One size fits all (companies)" has come and gone. Standard sizes from the rack are replaced with made-to-measure solutions. At the same time, they must not only be created as customized solutions but must also be flexible, so they can be adapted to different body shapes as needed.

This calls for the development of strategies that take into account the motivations, goals and possible advantages for each company.

The resulting concepts are supposed to change the IT organization so that it can provide optimum support for the business. But many companies are unable to cope with the requirements for modern IT organizations. Therefore, they should bring in competent advisors at an early stage - advisors such as Campana & Schott, who understand both business and IT and who use a strategic and long-term approach. Based on their experience, they not only develop the right solution based on best practices and proven scenarios but are also able to modify it quickly if needed.

Conclusion

Modern IT organizations must flexibly adjust to the given business requirements and may have different features in this regard. Each company must define and regularly update its own IT scenario to drive forward the digitization process for the long term and efficiently based on a solid IT environment. Experienced external advisors help with the development of tailored solutions (considering modern IT concepts) to ensure that the company is on the right track over the long term.