Managing cloud-based services with ISO/IEC 20000-1

Many customer organizations that provide services are using cloud service providers (CSP). The growth of CSP usage can be explained by factors such as the cloud computing expectations, clarification of the data security and privacy regulations or the development of hybrid work models. Frankly, a greater proportion of the “risk” of being a service provider has been now contracted to the CSP – the CSP must own the equipment, provide the necessary levels of security, availability, capacity, and continuity. All day-to-day operational tasks (e.g., change, maintenance...) are performed by the CSP. The service provider certainly needs to define the service properly and ensure the contract with its CSP is accurate and fulfills their customer’s needs (as well as the service provider needs!).

Benefits of cloud computing are:

- Reduced costs (e.g., hardware/software investments)
- Reduced on-premise hardware which reduces the service provider’s carbon footprint
- Increasing resources for innovation and creativity (e.g., instead of resources being consumed by daily maintenance activities, they could be redirected and invested in advancing the overall organization)
- Accelerated the time to market
- Improved scalability and flexibility by scaling up resources and storage to meet business demands
- Optimized data availability. Integrity, and safety
- Exploiting the CSPs security features and expertise.

Service provider organizations have this responsibility to deliver services to their customers. CSPs have the responsibility to manage their part of the contract or agreement, including processes and technology, to support end-to-end service delivery. Remember, the service provider which has engaged at least one CSP, must monitor the contract and ensure the agreed services are delivered. It is quite possible that the service provider has multiple CSPs which can also support multiple service providers! This is the level of complexity that must be managed.

A Service Management System (SMS) that conforms to the requirements specified in ISO/IEC 20000-1 can be a powerful tool for CSPs and service providers to achieve high service quality, delivery of value, increased agility, and reduced risk. When looking at the requirements of ISO/IEC 20000-1, the International Standard for Service Management, we can identify numerous areas that should be considered.

First, consider the organizational objectives – does outsourcing some of its technical capabilities fit within those objectives? If yes, the choice of using CSPs will be reflected in Clauses 4 (Context of the organization), 5 (Leadership), and 6 (Planning). Within those three clauses, the service provider must think of how to engage CSPs but also re-engage when any of the internal or business provided services change.

To engage the chosen CSP(s), Supplier management (clause 8.3.4, specifically 8.3.4.1) details the set of requirements for managing the CSPs relationship. The requirements that have been gathered for a specific service will be included in the contract with CSPs and then managed accordingly. How the service provider wants to engage with CSPs (e.g., when to receive reports and in what format, how to manage change and
support, etc.) will also be included in that contract. This is the single most important clause when contracting with CSPs.

Clause 8 (Operation of the service management system) is also important. How these activities are managed would be captured in the contract between the service provider and its CSPs. But. Remember that to be able to claim conformity to ISO/IEC 20000-1, the service provider must retain some elements of their infrastructure (e.g., telephony, network), so ensure the service provider’s internal operations, performed on its end-to-end services, are compatible with the CSPs services. This is where a service integrator may become important to the service provider.

To ensure that all CSPs contribute effectively to the end-to-end service delivery, a service integrator layer which is positioned between the customer organization (in this case, the service provider) and the CSPs can be required. This layer can provide standardized, reliable, and sustainable interfaces between the service provider systems of record and the ones of its CSPs.

For more information on ISO/EIC 20000-1 and service integration, see ISO/IEC 20000-14, Guidance on the application of Service Integration and Management to ISO/IEC 20000-1, which is scheduled to be published in Q4 of 2023.

Lastly, the final two clauses of ISO/IEC 20000-1 are Performance evaluation (Clause 9) and Improvement (Clause 10). These two clauses and their application to a CSP relationship are critical. Remember the relationship has been defined by a contract (clause 8.3.4.1) and that contract should have performance review dates as well as how to handle changes and improvements. Utilizing the requirements from clauses 9 and 10 when writing and agreeing the contract will make performance evaluation and improvement efforts clearer.

In line with the UN’s Sustainable Development Goals (SDGs), utilizing CSPs will address not only SDG 9 (Industry, Innovation, and Infrastructure) but also SDG 11 (Sustainable cities and communities) and SDG 13 (Climate action). We must all look to improve our climate and our communities! For more information about these goals, see https://sdgs.un.org.

If you have a specific interest in how ISO/IEC 20000-1 can be used, please join our LinkedIn group (https://www.linkedin.com/groups/12777402/) and start a conversation!

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