General Assembly

Seventy-fourth session
Agenda item 141
Joint Inspection Unit

Managing cloud computing services in the United Nations system

Note by the Secretary-General

Addendum

The Secretary-General has the honour to transmit to the members of the General Assembly his comments and those of the United Nations System Chief Executives Board for Coordination on the report of the Joint Inspection Unit entitled "Managing cloud computing services in the United Nations system" (A/74/691).

Summary

In its report entitled "Managing cloud computing services in the United Nations system" (A/74/691), the Joint Inspection Unit analyses the different cloud computing frameworks, strategies, policies and practices in selected United Nations organizations.

The present note reflects the views of organizations of the United Nations system on the recommendations provided in the report. The views have been consolidated on the basis of inputs provided by member organizations of the United Nations System Chief Executives Board for Coordination, which welcomed the report and partially supported its conclusions.

I. Introduction

1.   In its report entitled "Managing cloud computing services in the United Nations system" (A/74/691), the Joint Inspection Unit analyses the different cloud computing frameworks, strategies, policies and practices in selected United Nations organizations, with a view to identifying valuable information regarding best practices. It further analyses innovative approaches and related lessons learned, current risk management mechanisms, system-wide governance, security and data privacy issues arising from the use of cloud computing.

II. General comments

2.   Organizations welcome the report and express their appreciation for the comprehensive review. The report is seen as a useful input for organizations that are considering moving more information and communications technology (ICT) applications to the cloud.

3.   The report provides a sound baseline as organizations need access to more detailed resources to effectively manage the risks that are unique to cloud computing. In particular, the issues surrounding data residency, data privacy and respect for privileges and immunities are complex and still carry uncertainty to the extent that they have not been broadly tested across the United Nations system. Having access to legal analysis and operational guidelines would also help organizations to navigate this complexity.

4.   Organizations concur with the inspectors' views that cloud computing offers the opportunity to manage ICT service delivery with more agility, improved business continuity, improved security and service delivery at reduced cost. However, the business case and adoption strategy of each organization need to be designed explicitly to meet these four objectives; otherwise there is a risk that the organizations will not experience the benefits of cloud adoption.

5.   In the context of the reform of the United Nations, several organizations recognize the need for synergy and consistency in leveraging and sharing common experiences and policies.

6.   Organizations note that the adoption of cloud-based solutions has increased at a fast pace since the collection of the data underpinning the report. Noting that the services delivered by the United Nations International Computing Centre itself have shifted significantly, organizations find it timely to reflect on current and future opportunities as well as their specific needs. The report, however, contains concrete proposals for extending the mandate of the Centre into new service areas that may be provided system-wide. Many organizations are of the view that such proposals would be better addressed within the management committee and not as currently formulated in recommendation 5.

7.   In reference to paragraph 170, the World Tourism Organization confirms that it has moved from Sharefile to One Drive through Office 365 licenses provided by the Centre and that United Nations privileges and immunities are now covered under the same conditions applicable to other organizations of the United Nations system.

8.   Last, organizations suggest that the impact of the cloud adoption on the required network bandwidth would benefit from further elaboration. In the specific cases, moving applications to the cloud (in whatever form suitable) frequently requires an increase in the quality and quantity of connectivity services available in a specific geographic location. This element can have cost implications, but could also pose

specific risks owing to unavailability of functions necessary for the provision of services.

9.   The organizations, therefore, partially support the proposed recommendations.

III.   Comments on specific recommendations

Recommendation 1

The executive heads of the United Nations organizations should ensure that business continuity planning includes strategies and measures to mitigate the risk of failure by cloud service providers to deliver the contracted services.

10.   Organizations support the recommendation.

11.   Several organizations are currently implementing business continuity plans designed to equally provide solutions hosted locally as well as in the cloud, even though they find it challenging to implement executable disaster risk and business continuity plans in a cost-effective and reliable manner.

12.   Some organizations are currently experiencing issues with the geographical location of data centres and with the number and location of data centres complying with the United Nations requirements, and note that these are having an impact on their ability to implement best practices.

Recommendation 2

The governing bodies of the United Nations organizations should request the heads of their respective organizations to include provisions in their financial strategies that facilitate the adaptation, responsiveness and efficient use of operational expenditures and capital investments related to new technologies.

13.   Noting that the recommendation is addressed to the governing bodies, organizations support it, except in cases in which the proposed approach has already been endorsed and reported to the respective governing body.

14.   Organizations report that in the case of traditional service providers, an information technology operational expense can be predicted relatively accurately and committed in the financial system in advance. With a cloud service provider, expenditure can depend on actual usage, which is not fully predictable; actual expenditure may therefore vary considerably from budget predictions.

Recommendation 3

The executive heads of the United Nations organizations should put in place periodic procedures to ensure that their corporate ICT strategies, including those for cloud computing services, are aligned with the organizations' business needs and priorities, and yield value for the investment.

15.   Organizations support the recommendation and observe that cloud computing services are as much business-driven, as ICT-driven.

Recommendation 4

The executive heads of the United Nations organizations should ensure that a comprehensive risk analysis exercise is undertaken before contracting ICT services, including cloud-based services. The risk analysis exercise should consider both technical and financial risks and benefits, and relevant safeguards should be included in the service-level agreement.

16.   Organizations partially support the recommendation.

17.   While organizations assess the third-party information security risks of all external service providers, including cloud providers, before contract execution, they noted that the flexibility of the organizations to negotiate contractual security requirements is limited or non-existent with certain large cloud providers. In particular, such matters as the right to audit, the process to assert or protect an organization's immunities and privileges, data breach response service-level agreements, and liability and indemnity provisions, are difficult to negotiate with some providers.

18.   Some organizations note that additional risk mitigation measures may also be included as "safeguards" in a service-level agreement, including measures of a strategic nature, such as avoiding dependency on a specific supplier or a specific platform.

Recommendation 5

The General Assembly should review and update the mandate of the United Nations International Computing Centre, and consider, inter alia, diversifying the membership of the Centre's Management Committee and delegating appropriate levels of authority with respect to decision-making on digital information technologies, including cloud computing initiatives.

19.   Organizations note that the recommendation is addressed to the General Assembly.

20.   In terms of governance, it is not clear how the proposed recommendation would lead to a strengthening of the service delivery of the United Nations International Computing Centre to its clients. Furthermore, organizations find the proposed diversification and delegation of authority unclear. Finally, they find that the recommendation does not seem to address at all the role of the Centre's current Advisory Group in a future governance set-up of the Centre.

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