Clearing the fog

Breaking through financial barriers to adopt cloud technology in healthcare

The Canadian health system is starting to understand the value in migrating to the cloud. What do digital health leaders need to know to accelerate their pace of modernization?

80% of Canadian Healthcare CEOs believe driving digital transformation at a rapid pace is critical to attracting and retaining talent and patients.[1] While publicly-funded healthcare organizations are eager to realize the advantages of migrating to the cloud, financial standards and capital and operating budget constraints are inhibiting the sector's pace of modernization.

Cloud adoption and transformation represents a large step in the modernization journey of many publicly-funded healthcare organizations in Canada. The benefits of cloud adoption are well-known; primary drivers include increased flexibility and agility to scale, improved security posture, and heightened access and availability of technology assets.

Recognition of the advantages of cloud technologies also extends beyond health service providers. For example, in Quebec, the Ministry of Cybersecurity and Digital (MCN) issued Decree 596-2020, has mandated the consolidation of computer infrastructure and optimization of processing and storage of government data through the priority use of the external cloud.[2] Under the mandate, Healthcare and Social Services organizations are expected to complete their migration by the end of 2025.

If the benefits of cloud technology are well understood, why have so few organizations made the jump?

Navigating the storm: Partnering Finance and IT to maneuver barriers

To date, most healthcare organizations have hosted their IT infrastructure within self-managed data centers. Adopting cloud technology means replacing these physical data centers with software-as-a-service (SaaS) arrangements offered by a hosting provider. Leveraging a cloud provider differs in that the clients can choose from a set of options and pay according to how much they consume. Because the provider manages the back-end requirements, they can achieve economies of scale that are passed on to the client.

Traditionally, organizations have capitalized their IT infrastructure costs and amortized these costs over time. Because cloud computing and SaaS technologies are paid for on a subscription-based model, these costs cannot be capitalized in the same way. If healthcare organizations are to adopt cloud technology, what existing standards impact the accounting treatment for these costs?

While most public sector healthcare CIOs are familiar with Canadian technology procurement and traditional capital investment requirements, few have the accounting background required to manage the enterprise budgeting shift required to support cloud computing. This is where it is critical for the CIO to partner with their organization's CFO to navigate the accounting complexity.

Public healthcare CFOs in Canada look to the Public Sector Accounting Standard (PSAS) to understand the financial regulations in place to guide the treatment of cloud computing costs. However, the PSAS does not have explicit guidance on cloud computing or SaaS-based arrangements. Looking through the Generally Accepted Accounting Principles

[1]KPMG 2022 CEO Outlook - KPMG Global. KPMG. Published October 4, 2022.
[2]Programme de consolidation des CTI - Québec. infratech.gouv.qc.ca.

(GAAP) hierarchy to other accounting frameworks such as the International Financial Reporting Standards Foundation (IFRS) and the Accounting Standards for Private Enterprises (ASPE), there is a similar lack of specific guidance (with the exception of configuration & customization costs). So, what then?

Where no specific accounting standards exist through PSAB or the GAAP hierarchy, organizations should apply PSAB first principles (referenced here as GAAP). Under GAAP, organizations should apply the definition of an asset to determine whether the associated costs can be capitalized and amortized, similar to how traditional IT infrastructure costs were previously accounted.

Defining cloud technology as an asset

Under GAAP, three characteristics must be demonstrated to justify the existence of an asset so it can be capitalized:

1. The asset must embody future economic growth benefits that involve a capacity, singly or in combination with other assets, to provide goods and services, to provide future cash flows, or to reduce cash outflows
2. The entity must be able to control the economic resource and access the future economic benefits
3. The transaction or event giving rise to the entity's control must have already occurred

While criteria #1 and #3 are easily met by cloud technology, SaaS and cloud-computing arrangements generally do not result in ownership of an asset. Therefore, we need to examine the specific elements of control to understand whether cloud expenses can be capitalized. Under PSAS, a public sector entity controls the economic resource and access to the future economic benefits when it:

- Can benefit from the economic resource through its capacity to provide goods and services, to provide future cash inflows or to reduce cash outflows
- Can deny or regulate access to those benefits by others
- Is exposed to the risks associated with the economic resource.

IFRS and GAAP have created committees to assess the correct accounting treatments for cloud computing arrangements.[3] Both bodies concluded that the terms and conditions of most SaaS and cloud computing arrangements do not allow for organizations to take possession of the cloud technology. Specifically, they observed that the right to receive future access to the provider's cloud technology does not, at the contract commencement date, give an organization the power to obtain the future economic benefits flowing from the cloud technology itself and to restrict other's access to those benefits. This, in turn, means that organizations would not be allowed to capitalize the cloud subscription costs.

However, an important finding of the committee was that some contracts might convey rights to a cloud technology depending on the specific language and stipulations used in the agreement itself.[3] Specifically, as part of a SaaS arrangement, an organization could obtain rights that give it the ability to direct the use, and obtain the benefits from use, of the cloud computing technology that is delivered to the customer at contract commencement. For example, if an organization had a genuine right to possess cloud technology and the ability to host that software on its own (or a third party) server, they would likely control a copy of the software. In that case, the organization would have power to obtain the future economic benefits flowing from the rights and to restrict the access of others to those benefits and, in turn, could theoretically capitalize the costs associated with that asset. In practice, however, most cloud computing arrangements are typically treated as service contracts by default, and the subscription costs associated with cloud technology are operationalized.

While barriers to capitalizing cloud subscription costs exist, healthcare organizations may have an avenue to demonstrating control through modifying language in their contract with a SaaS provider. Problem solved? Not quite.

Balancing the books: Challenges of operationalizing cloud costs

Many Canadian provinces, such as Ontario, Quebec, and Alberta, mandate that public-sector healthcare organizations must balance their revenues and expenses each fiscal year and must not incur a deficit.[4,5,6] Absorbing cloud computing costs into operating budgets means that organizations must either increase revenues or decrease other expenses to compensate and maintain a balanced budget.

Given that healthcare is a publicly-funded industry in Canada, organizations are not able to increase revenue in the same way that private healthcare companies or other industries could. More importantly, it is difficult for healthcare executives to increase administrative expenditures (i.e., IT costs) relative to spending on the delivery of care, especially in the aftermath of COVID-19 where organizations are under pressure to do more with less. Increasing operating spending on IT may be perceived as taking away expenses that could otherwise be used to provide services to patients, even if it has the potential to improve operational efficiency and productivity in the long run.

[3]Financial Accounting Standards Board, Memo, Project: Issue No. 17-A, "Customer's Accounting for Implementation, Setup, and Other Upfront Costs (Implementation Costs) Incurred in a Cloud Computing Arrangement That Is Considered a Service Contract", Issue Summary No. 1, Supplement No. 1", dated September 28, 2017

[4]Ontario Public Hospitals Act, RSO 1990, c P.40, <https://canlii.ca/t/55693>

[5]Quebec Act respecting health services and social services, CQLR c S-4.2, <https://canlii.ca/t/55xnp>

[6]Alberta Health Act, SA 2010, c A-19.5, <https://canlii.ca/t/5259r>

Given that on-premise IT infrastructure was financed through capital expenditures, existing financial standards do not easily allow for the capitalization of SaaS subscription costs, and there is little room in existing operating budgets to account for these additional expenses, there is a disincentive in Canada for public healthcare organizations to invest in cloud technology.

Increasingly, the choice between on-premise and cloud technology options is narrowing. Many systems or solutions are now offered only in the cloud, cloud options are more frequently superior to their on-premise counterparts, and vendors are increasingly responding to procurements with a cloud-first approach. But how can public healthcare organizations navigate the fog of the financial and operational barriers?

Clear skies ahead: Strategies to move forward with cloud adoption

KPMG's Digital Health and Corporate Finance Leaders have teamed up to advise public sector healthcare clients on strategies to help them accelerate the pace of modernization that the cloud can offer.

Review cloud computing contracts for opportunities to demonstrate control

CIOs, CFOs, and legal teams should collaborate closely to optimize the technical, financial, and legal approach required to facilitate the transition to the cloud. The CIO should first define the scope of an asset and the requirement for the appropriate level of control from the cloud or SaaS provider. Then, the CFO can help interpret the accounting standards aligned with the level of control indicated in the cloud or SaaS arrangement, so that costs associated with the cloud technology may be considered for capitalization, if appropriate. Together, they should provide direction to their legal team to construct legal terms and conditions that are commensurate with the level of control over the asset or service being considered.

Explore shared service back office models

Another innovative approach that some health finance leaders are looking into is the idea of creating a shared services organization for purposes of holding the vendor cloud costs or long-term service agreements of member hospitals / healthcare organizations. This could result in a different reporting outcome for the participating organizations under the accounting standards, I.e., capitalizing cloud/SaaS costs, depending on the specific facts of the particular arrangements.

Engage public funders and emphasize the role of cloud in enabling health system transformation

Long-term change to truly eliminate the barriers to cloud adoption requires partnership with provincial governments, who set policy, along with flexible funding models for healthcare organizations in their jurisdictions. Public healthcare organizations can engage government and regulators to vocalize the policy-driven challenges associated with expensing cloud-related costs. Funding models that do not treat capital and operating expenditures as rigidly are essential. Through further collaboration, healthcare executives and policymakers should explore opportunities to update budgeting requirements that not only support, but also incent the adoption of cloud technologies to improve resiliency, agility and security of technology and information that underpin the transformation we all strive for in our public sector health system in Canada.

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