For many companies, the cloud computing debate is over. They are no longer asking if they should move to the cloud; instead, they are asking when and how. And while the timing and degree of adoption may vary, many companies now recognize cloud’s compelling capabilities and are making it an integral part of their technology infrastructure and business platform strategies.

The promise of cloud is not lost on finance chiefs: In the Q3 2016 CFO Signals™ survey, cloud computing easily outpaced other emerging digital technologies in terms of deployment, with 80% of respondents saying they used cloud in some form, and in the Q3 2017 edition, process automation via cloud-based services was relatively popular among CFOs who cited substantial implementations.²

As companies explore cloud’s various potential impacts and business uses, however, CFOs are finding that sticky questions related to accounting, fees, and analysts’ concerns keep popping up. And in this issue of CFO Insights, we will address ways CFOs can answer those questions and steer conversations and strategies to the potential implications of cloud migration.

Cloud computing: Resolving some sticky questions
Five questions to consider
With cloud adoption maturing, now seems like a good time for CFOs to address the accounting, financial, and investor-related considerations of cloud computing. Here are five key questions to help get the conversation going:

1. **What is the fee structure?**
   Cloud service fees can be tricky to recognize. If the fee is for a specified period, for instance, the typical approach would be to recognize the related expense ratably over that period. But that could change if there is evidence you did not receive the benefit in a ratable way. Another consideration is the payment options that the cloud service provider (CSP) offers, such as a discount for paying upfront. This can complicate the expense timing determination process, including when to recognize a related asset or liability. The bottom line? It can take judgment to expense cloud service fees in a manner consistent with accrual accounting.

2. **Are we using third-party software applications?**
   Many organizations turn to the cloud for additional processing power to support their own algorithms or applications. However, it is also common to deploy third-party applications in the cloud. The cloud might be private (that is, set up inside your organization's firewall) or public (meaning the application resides on a CSP's servers and people are accessing it through the public Internet). Either way, you should record each purchased application and amortize it over its expected useful life.

3. **Are there other incurred costs?**
   Cloud computing often involves costs for consulting and other types of labor. The applicable guidance for recording such costs depends on the type of cloud implementation you have (Figure 1). Keep in mind there may be tax implications as well. Often these arise from timing differences between book and tax bases resulting from a shift from a capital expenditure (CAPEX) model to an operating expense (OPEX) model. Other conditions with potential tax impacts include transfer pricing and receipt of energy credits.

4. **How do we handle data?**
   Data storage and management are crucial considerations. With cloud computing, companies often have to decide whether to keep data in their own on-premises servers or use public cloud services. This decision can impact data security, compliance, and privacy.

5. **What are the potential risks?**
   Cloud computing introduces new risks, such as data breaches, service outages, and vendor lock-in. It is important to consider these risks and develop strategies to mitigate them.

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**Figure 1: Considerations for accounting treatment of different cloud structures**

Cloud implementations can take many different forms, from providing access to a single software application (software-as-a-service or SaaS) to outsourcing an entity's entire IT infrastructure (platform- or infrastructure-as-a-service—PaaS or IaaS). Each type has different capabilities and is applicable to different situations and company requirements.

Of course, the cloud environment itself can also be implemented in different ways based on the needs of an organization. Common variations include public, private, virtual private, community, and hybrid clouds. It is important to understand the difference between these types of clouds, the demonstrated benefits of each, and their potential tax and accounting implications. Following are high-level accounting considerations for the various cloud types:

<table>
<thead>
<tr>
<th>Cloud parameters</th>
<th>Guidance/Consideration</th>
<th>Applicability for cloud arrangement types</th>
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| **Infrastructure** | Equipment is generally a CSP's property and would be recognized as such and depreciated over its useful life | ✓  
|  | Consider whether service is delivered on premise or hosted by third-party provider | ✓  
| **Hosting arrangement** | Subscription fees are to be generally expensed in period the entity receives the benefit of using the related services | ✓  
|  | Consider service arrangement (access to particular software application on demand via the internet) | ✓  
| **Software** | Consider who produces/maintains software, and whether access is allowed without incurring significant penalty | ✓  
|  | Consider whether software is developed or obtained for “internal use” | ✓  
| **Lease arrangement** | Consider leasing arrangements, who has right to control the use of the underlying assets, any transfer agreement | ✓  

Source: Deloitte Consulting LLP, 2018
4. What are the strategic benefits of cloud adoption?
Companies often focus on cloud’s cost-reduction opportunities. But it is also worth thinking about—and tracking—the more strategic benefits offered by a cloud investment, such as new lines of business, more market share, or greater customer satisfaction. For instance, one major manufacturer moved its after-sale customer service operations to the cloud, where the technology was more advanced than what was available in-house. This significantly improved customer service because it enabled the company to proactively contact customers about their equipment and perform maintenance before problems occurred.

5. How should we make the case with investors?
Because it can involve a shift to more variable costs, some CFOs worry about cloud’s effect among analysts and investors. To gain some insight into this dynamic, Deloitte looked at the filings, commentary, and analyst discussions of a group of public companies that had invested in the cloud. They revealed little concern about the increase in operating expenditures due to cloud adoption. But analysts did show interest in specific revenue opportunities from cloud adoption, underscoring the vital role CFOs can play in providing a persuasive story to share with the investment community.

Clearly, cloud computing’s demonstrated benefits are compelling for many reasons, including cost-reduction. At the same time, it is also clear that other factors should be considered as part of the cloud equation. EBITDA and other key performance indicators may be affected, potentially impacting company performance significantly. Opportunities to consider new business and operating models, new revenue streams, and ways to enhance existing revenue sources may also arise from cloud adoption.

CFOs should be key players in conversations about cloud. They have the opportunity to garner support from stakeholders both within and outside of their organization by articulating the anticipated financial impacts of cloud adoption and how cloud might enable the business to deliver services with greater efficiency and speed. And given the likelihood of cloud becoming an information technology services standard, there is no better time than now for CFOs to become catalysts behind cloud adoption and help define and drive resulting benefits.

Endnotes
1 North American CFO Signals, Q3 2016, CFO Program, Deloitte LLP.
2 North American CFO Signals, Q3 2017, CFO Program, Deloitte LLP.