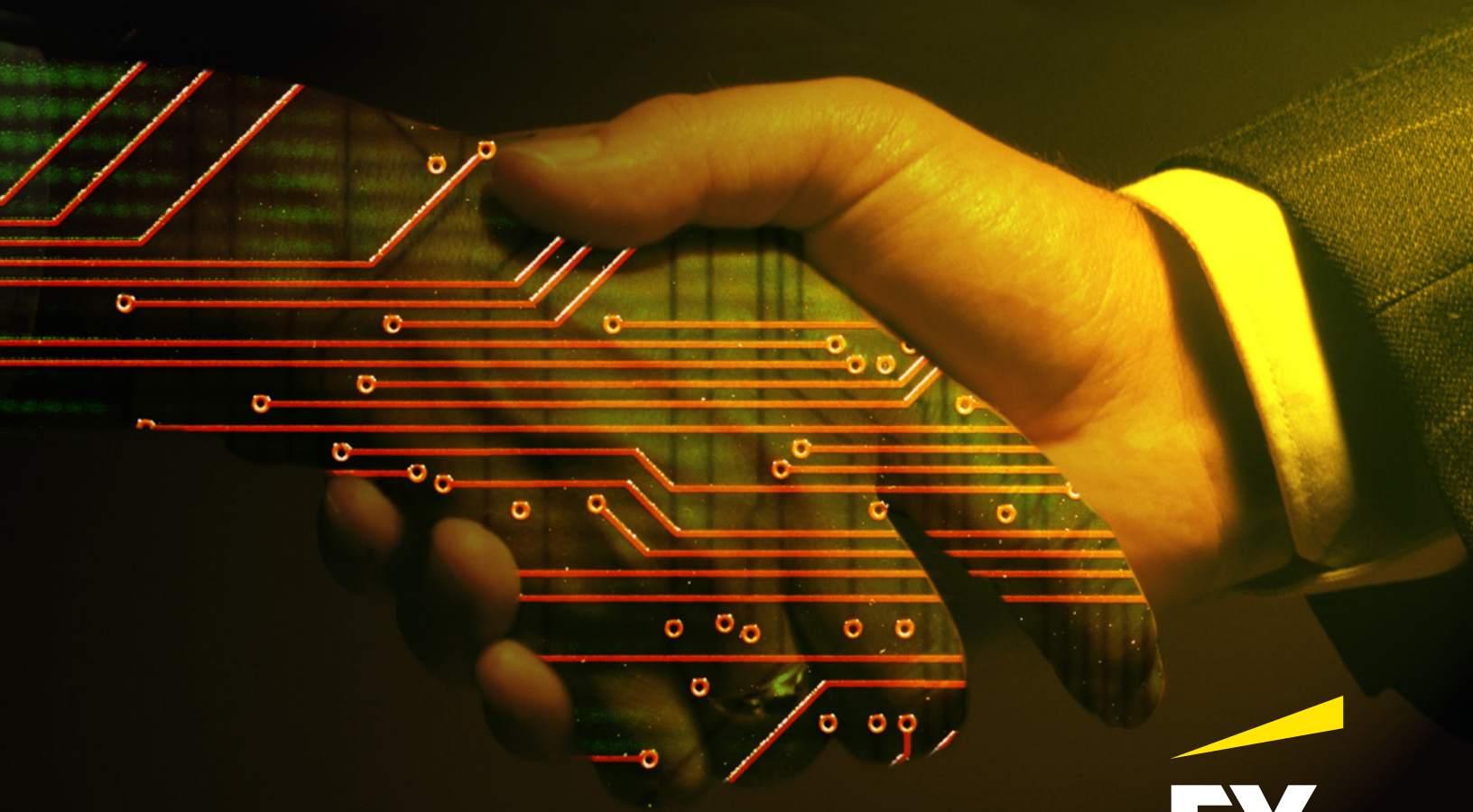
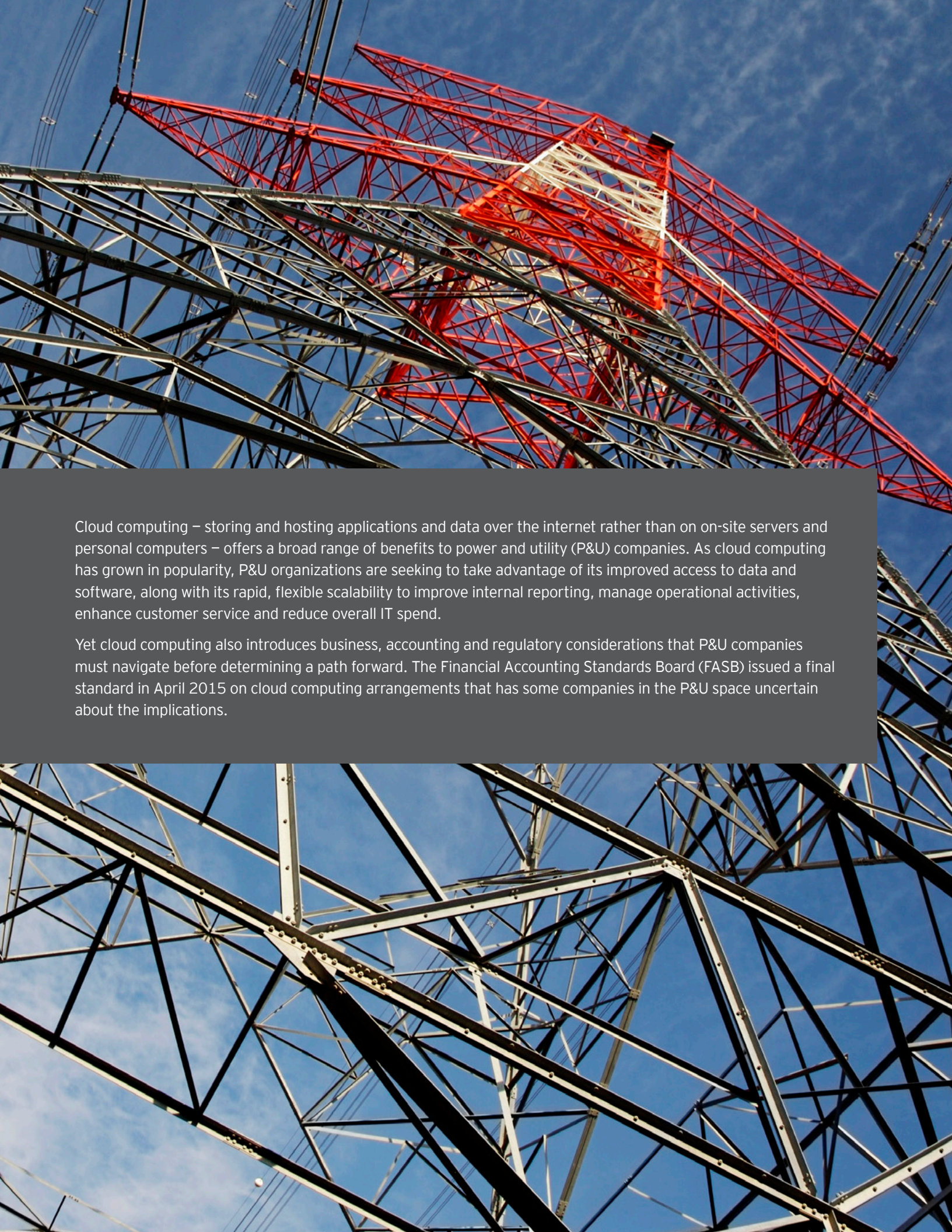


Cloud computing offers benefits and challenges to power and utility companies

For regulated entities, an IT strategy that involves cloud computing requires careful consideration

The EY logo, consisting of the letters 'EY' in a bold, white, sans-serif font. A yellow chevron shape is positioned above the 'Y'.

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Cloud computing – storing and hosting applications and data over the internet rather than on on-site servers and personal computers – offers a broad range of benefits to power and utility (P&U) companies. As cloud computing has grown in popularity, P&U organizations are seeking to take advantage of its improved access to data and software, along with its rapid, flexible scalability to improve internal reporting, manage operational activities, enhance customer service and reduce overall IT spend.

Yet cloud computing also introduces business, accounting and regulatory considerations that P&U companies must navigate before determining a path forward. The Financial Accounting Standards Board (FASB) issued a final standard in April 2015 on cloud computing arrangements that has some companies in the P&U space uncertain about the implications.

Utilities open to the cloud

Today's enterprise IT world is increasingly conducted in the cloud, as companies move both infrastructure and applications to large-scale providers rather than invest in their own on-site hosting.

Public utilities, however, have traditionally been willing to invest in on-site hardware and IT systems because those expenses can earn an authorized return on investment as part of the company's rate base. In addition, some utilities have had security concerns about hosting critical operations such as demand response, customer billing and security applications in the cloud.

In recent years, however, those barriers have mostly been erased, as proof of concept in real-world environments has shown P&U companies the very real benefits that cloud computing can deliver – flexibility, speed and a greater ability to keep pace with rapid technology advancements without continued investment in bulky, patchwork legacy systems.

Cloud computing also makes it much more cost-effective to access the raw power needed for complex data analytics, such as the vast amounts of data made possible by smart meters – a growing area of need for utilities. P&U companies should consider the combination of business, accounting and regulatory considerations when evaluating the solution that is most appropriate for the utility's needs.

Business considerations

Many utility companies have aging legacy systems. Current IT road maps must consider whether to continue to utilize the historical approach of on-premise IT solutions or consider a cloud computing arrangement as an alternative. Many other industries have begun to utilize cloud computing arrangements to fulfill their business needs, citing enhanced security, improved customer service and more flexible payment streams as drivers when selecting these solutions.

Accounting considerations

For most utilities today, the question is not whether moving to the cloud can be beneficial; it usually centers on the best approach to doing so. Determining the right cloud computing arrangement is especially critical for regulated companies who will want to recoup their investment while earning a return on the investment. The two primary considerations are: the ability to capitalize costs (e.g., software license costs, implementation and other up-front costs) for accounting purposes in the cloud computing arrangement and therefore include those costs in the utility's rate base; or gaining regulatory approval for recapturing costs that are not capitalizable for accounting purposes.

Accounting Standards Update (ASU) 2015-05, *Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*, states that, if a cloud computing arrangement includes a software license, then the customer should account for the license element of the contract as they do other software licenses. The license should be capitalized as an intangible asset as codified in ASU 2016-19, *Technical Corrections and Improvements*, and amortized over an appropriate useful life through expense on the income statement.

An arrangement includes a software license if it meets both of the following criteria:

- ▶ The customer has the contractual right to take possession of the software at any time during the hosting period without significant penalty.
- ▶ It is feasible for the customer to run the software on its own hardware or contract with another party unrelated to the vendor to host the software.

If an arrangement does not meet these criteria and therefore does not include a software license, the customer accounts for the software element as a service contract.

The guidance in Accounting Standards Codification (ASC) 350-40, *Intangibles - Goodwill and Other - Internal-Use Software*, addresses how customers that obtain software licenses evaluate whether to capitalize or expense certain costs but does not address the treatment of these costs when software is accounted for as a service (i.e., cloud computing arrangements that do not include a software license). That is, the FASB did not address the accounting for implementation and other up-front costs incurred by customers in service arrangements in ASU 2015-05. The FASB announced during November 2016 that it is

considering a potential project on implementation costs in cloud computing arrangements. As such, companies should monitor developments in this area.

Because these costs can be significant, careful consideration should be taken to determine the appropriate accounting. For example, a customer that makes payments to a supplier of cloud computing services in advance of the related service period may determine it is appropriate to defer those costs as a prepaid asset. Up-front payments the customer makes that relate to enhancing the functionality of the software service the customer will receive over time should also generally be treated as a prepaid asset that is expensed over the term of the arrangement.

Customers also may capitalize certain costs they incur to modify or enhance their existing internal-use software that will continue to be used in conjunction with software services that they will receive under a cloud computing arrangement. ASC 350-40 provides guidance on determining whether to capitalize or expense costs related to internal-use software.

Customers generally expense certain costs when the related service is rendered (e.g., employee training or data conversion), regardless of whether a cloud computing arrangement includes a software license. Likewise, customers in both types of arrangements account for costs related to business process reengineering activities under ASC 720-45, *Business and Technology Reengineering*.

In addition to accounting considerations associated with the software component in a cloud computing arrangement, utilities will need to consider the accounting for any hardware components associated with the transaction. If a hardware element associated with the cloud computing arrangement is fully devoted to a utility, the utility should consider if the use of the hardware represents a lease arrangement that should be accounted for under ASC 840, *Leases*, or, after its adoption, ASC 842, *Leases*. Under current accounting guidance, an arrangement is typically a lease if the arrangement conveys the “right to use” the specified property, plant or equipment. An example of a potential lease arrangement in a hosted environment might relate to an identified, dedicated server that is maintained by the host in its cloud environment.

Regulatory considerations

As utilities evaluate their cloud-based solutions, we believe it is important to include regulatory considerations in order to establish the most successful path for achieving optimal cost recovery. In this regard, we believe one of the critical questions that should be addressed is:

What are the key regulatory-related risks you face in carrying out your IT cost recovery strategy and how can they be mitigated?

Utilities should be able to demonstrate successfully the recoverability of costs incurred for the benefit of regulated customers. As with any utility expenditure, this includes meeting the used, useful, reasonable and prudent standards that apply industry-wide. However, in addition, it is important to also consider the appropriateness of capital and expense accounting policy and to verify that the selected approach is synchronized by jurisdiction with both the firm’s overall regulatory and tax strategy.

For public utilities, regulatory implications of cloud computing specifically must be considered, since the Federal Energy Regulatory Commission (FERC) has not changed its rules on allowing lease payments to be included in rate bases.

If a company’s cloud computing arrangement contains a software license as described above, then the license is accounted for as an intangible asset that would typically be included in rate bases in most jurisdictions.

If a company’s cloud computing arrangement does not contain a software license, the software service costs are typically not eligible for capitalization under accounting rules. However, there may be some jurisdictions that would allow for rate recovery, especially if the utility can show that it is reducing its overall IT costs or improving its service in ways that will ultimately benefit consumers. In other words, all or part of those software costs might be expensed for accounting purposes, but recorded as a regulatory asset with proper approval.



Support for recovery of investments associated with cloud computing solutions appears to be gaining momentum in the industry. At the annual meeting of the National Association of Regulatory Utility Commissioners (NARUC) in November 2016, a resolution was approved by NARUC's Board of Directors encouraging state regulators to consider whether cloud computing and on-premise solutions should receive similar regulatory accounting treatment, i.e., both would be eligible to earn a rate of return and would be paid for out of a utility's capital budget. The passage of the resolution is significant in that it reflects a growing consensus among regulators that cloud-based platforms are becoming state-of-the-art technologies that can provide stronger value to customers over conventional on-site IT systems, and that ratemaking policies should encourage a utility's adoption of cloud-based technologies by acknowledging that in appropriate circumstances, existing rules may be interpreted to allow utilities to capitalize cloud-based technology investments.

Therefore, to achieve the best regulatory outcome, utilities need to carefully design, develop and propose solutions that include input and guidance from regulators prior to finalizing a cloud computing arrangement. Mitigating the risk through a proactive regulatory strategy can provide a substantial benefit.

From a regulator's point of view, allowing some flexibility in how utilities treat cloud computing costs could be preferable to requiring them to continue to purchase IT hardware, software and services the old-fashioned way just to protect recovery.

Looking forward

Given the advantages of cloud computing, and the complexity it brings to the accounting and regulatory functions, it makes sense for P&U companies to consider IT in a more strategic, long-term manner.

The first step is developing an "IT road map" that outlines technology needs for the next several years and provides a strategy for achieving maximum performance and flexibility. Also, companies should have an accounting representative on the IT governance committee – as well as IT representation on accounting and controls governance committees, and teams evaluating financial reporting internal controls – to allow the utility to have proper input on future plans.

As the IT environment changes and new technologies expand what is possible, P&U companies must keep pace in order to continue to meet the demands of the markets they serve. And, as the regulatory environment continues to change, it is especially important for P&U companies to stay aware and informed about new accounting standards related to IT implementation to support compliance.



How EY can help

EY Power & Utilities Sector combines a diverse set of skills, insight and experience from across the organization to provide focused service and advice to clients who seek assistance with the accounting, tax and regulatory considerations required for successful execution of cloud computing initiatives. EY can help develop and execute an agile business strategy to support power and utilities companies in adapting to a constantly changing environment, thereby seizing opportunities and advising/recommending risks at every stage of your value chain. We are focused on leveraging the power of digital technology to drive efficiency across an organization, from strategy to execution.

Contact us

Financial Accounting Advisory Services

Susan Bell

+1 404 817 4865

susan.bell@ey.com

Jennifer Booth

+1 404 817 4388

jennifer.booth@ey.com

Angela Nagy

+1 404 817 4319

angela.nagy@ey.com

Fraud Investigation & Dispute Services

Michael Ballaban

+1 305 415 1601

michael.ballaban@ey.com

Christopher Smith

+1 617 375 3774

christopher.smith1@ey.com

Advisory Performance Improvement Services

Paul Roberti

+52 55 5283 1300

paul.roberti@mx.ey.com

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