TECHNOLOGY WITHIN FINANCE
CURRENT STATE AND THE CLOUDY FUTURE

Abstract

We look at the future of technology use within Finance and Accounting. A survey of our members revealed that the simplification and automation of processes is becoming a priority for most organizations as they grapple with the demands of changing times. In addition, the lines between IT and Functional areas are blurring as technology becomes integrated into everything we do.

In this paper, we explore the transition of IT systems into Cloud Platforms, IT Demand Planning and automation of processes via Robotics Process Automation (RPA) as three emerging trends in our industry.

An EEI-AGA Collaboration
Technology and Finance Task Force
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Technology within Finance: Current State and the Cloudy Future

Background
EEI and AGA have formed a joint Technology and Finance Task Force to educate members and promote best practices based on industry research and an evolving technology landscape in the digital era. The task force was comprised of functional and technical experts from the following member companies: Ameren, Sempra, Duke, Berkshire Hathaway Energy, Southern California Edison, Xcel Energy, PG&E, and TEP.

The Technology and Finance Task Force’s initial goal is to research how companies in our industry are increasing their use of technology within finance to perform essential functions such as record to report and source to settle, and to deliver data insights to our business partners. The first deliverable from the task force is the following report on current and expected future state in the following categories:

Cloud Aspirations
IT Demand Planning
Robotics Process Automation (RPA)
  a) Governance
  b) Use Case Identification, Tools, and Systems
  c) Finance and IT Organizational Structures
  d) Change Management

The task force developed this report based upon the analysis of results from a survey of our members. Twenty-nine (29) EEI-AGA member-companies participated in a survey on these areas and the consolidated results are included in each section of the report. The survey results indicated best practices within the industry as well as helped identify key takeaways.

Potential future research topics for the Technology and Finance Task Force include:

- Management/governance of bots post-implementation
- Deeper dive on successful RPA use cases in utility finance organizations
- Data Analytics in finance
- How technology is impacting the finance workforce
- The use of Agile in finance
- Emerging technologies (AI, machine learning, blockchain)
- The continuous close and real-time financial data
Cloud Aspirations

Summary:
Cloud computing is a new disruptor in the Utility industry. The historical approach of installation of on-premise software is being replaced as the major providers are transitioning away from support of on-premise solutions. Given these changes, many companies within the utility industry are evaluating whether cloud offerings are appropriate for various applications within their companies, including Finance. During this process, each company is determining functional fit, setting the migration approach, identifying financial and accounting impacts, addressing security and SOX requirements, and considering maintenance and support of the application.

Industry Research Results:
In general, companies have been moving slowly into the cloud over the last three to five years. Some have adopted a few applications earlier, while others have yet to move to the cloud. Regardless of the timing, companies are experimenting with cloud technology in a few applications.

Overwhelmingly, companies are taking a phased-migration approach to the cloud where smaller, less integrated systems are moved to the cloud first and leaving the major systems on premise. During this phased approach, companies are finding that there are applications that are not good candidates for movement to the cloud. Heavily customized ERP systems are not good near-term candidates nor are utility-specific applications, such as NERC/CIP. Most journeys to the cloud have started outside of Finance ERP systems. HR and Supply Chain areas have the most adoption, while Finance has gone to the cloud with small, standalone applications. The most popular Finance cloud products are in the account reconciliation, consolidation, investor relations, and reporting areas. Companies are also leveraging the cloud with SOX compliance and budgeting.
There are several drivers for moving to the cloud. Cost reduction is one of the major drivers along with shorter delivery time for new functionality. With a move to the cloud, candidates for reduced costs include supporting the applications, as well as the data center footprint.

Additionally, companies are expecting savings in the cost of upgrades and by reducing customizations. These savings come from less labor with the upgrade and a reduction in hardware costs. Most companies believe that O&M costs will increase initially, but when the systems are fully migrated, there should be a decline. Even though O&M will increase, software amortization will decrease, partially offsetting the O&M. Frequent updates of new features make the cloud attractive to avoid the cost and waiting for more costly upgrades. Companies are also looking to the cloud to provide better performance, drive improved analytics through better data access, and eliminate the need for disaster recovery plans. Overall, success is measured generally by lower costs, better functionality, enhanced user experience, improved performance, and supporting agile product development.

While the benefits of a cloud solution are apparent, as with any new technology, concerns also arise. Capital and O&M assessments complicate the decision to move to the cloud, as accounting guidance is relatively new and still has some important differences in treatment compared to on-premise solutions capitalized as Property, Plant & Equipment (PP&E). Generally, the development, implementation and integration of the cloud application can be capitalized, but some costs that benefit multiple years may still have to be charged to expense under GAAP. Further, cloud costs must be recorded as O&M expense while on premise capitalized costs are recorded as depreciation and amortization. This disparate treatment affects metrics such as EBITDA.

Additionally, differences in how cloud versus on-premise solutions are treated for regulatory purposes can negatively affect the economics of moving to a cloud solution. Generally on-premise costs are recorded in PP&E, which is included in rate base and earns a return. However, recording multi-period

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1 In August 2018, the Financial Accounting Standards Board (FASB) issued ASU 2018-15 *Customer’s Accounting for Implementation Costs in a Cloud Computing Arrangement that is a Service Contract*. The guidance requires a customer in a cloud computing arrangement that is a service contract to capitalize certain implementation costs as if the arrangement was an internal-use software project (e.g., integration, coding, configuration, customization, etc).
cloud solution costs as a prepaid asset or regulatory asset often requires an explicit request to include such amounts in rate base. Importantly, some regulatory jurisdictions are allowing companies to create regulatory assets included in rate base for ongoing subscription costs.\(^2\)

Cybersecurity is a concern for the industry as cloud applications are evaluated. Security of the data, both company data and personally identifiable information, is critical. Companies are concerned about unauthorized access and how the data is encrypted to meet the standards of the on-premise environment. SOX compliance is another concern as well as agreements for non-compliance. The damage to the company for non-compliance can far outweigh the limitation of the liability of the vendor. Companies also see data model issues stemming from integrating their customized code block with cloud applications creating change management issues and end user confusion. However, most companies anticipate a restructuring of the data model before an ERP implementation.

The model to support a cloud solution for most companies is still being defined and varies based on the application. Internal IT resources currently supporting on-premise applications are expected to transition to supporting the integration layer, as well as software in Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) solutions. For Software as a Service (SaaS) applications, the vendor would provide support while the business groups would be responsible for configuration. The arrangement for this new support model needs to be carefully structured, as the transition from internal resources to an external vendor response model requires expectations to be set on both sides (e.g. specific Service Level Agreements (SLAs), Hours of Operation for support). Companies are seeing a need for an integration layer between the cloud applications and the on-premise applications, which is generally seen as a customization that requires IT to maintain.

**Best Practices Identified:**

As companies are moving to the cloud, the majority are taking a phased migration approach where each system is evaluated to determine what cloud functionality exists. Companies that have moved to the cloud are finding a better out-of-the-box solution fit with minimal customizations. This approach of configuration over customization is preferred with cloud technologies. When needed functionality does not exist, companies are leaning toward changing business practices to align with the software’s available functionality to minimize additional support needs.

As companies look to the cloud to reduce overall application and support costs, another best practice is to take advantage of the cloud’s ability to provide new functionality quicker and more often. Major upgrades every few years are avoided and are replaced by small, more frequent updates that can be achieved without the expense of a major upgrade project.

Best practices around data security and access continue to evolve; however, most companies acknowledge that relying entirely on a software vendor to secure their data in the cloud is not a

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\(^2\) In November 2016, the Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC) issued a resolution encouraging state regulators to consider whether cloud-computing and on-premise solutions should receive similar regulatory accounting treatment, in that both would be eligible to earn a rate of return and would be paid for out of a utility’s capital budget.
prudent approach. Additional safeguards, such as firewalls and secure transfer protocols, are being implemented to ensure that cloud applications are not interfacing directly into on-premise systems.

**Key Takeaways and Future Research Suggestions:**

The key takeaway is that companies are looking toward the cloud to realize the benefits of smaller system updates, rapid deployment of new functionality, and potentially lower costs. In this effort, however, companies are being methodical in their cloud adoption by waiting until the software is ready and proven to replace on-premise solutions.
IT Demand Planning

**Summary:** Industry transformation requires us to take steps over the next few years to mitigate risks and capitalize on opportunities to sustain superior long-term shareholder and customer value creation. IT capital expenditure project selection should focus on leveraging digital technologies to enhance customer experience and gain operational efficiencies to keep customer rates competitive. As such, many companies in our industry are experiencing significant year-over-year increases in IT/Digital capital expenditures.

IT demand planning is driven by an integrated roadmap including IT investments, milestones, timelines, governance and action plans, metrics and value realization. Demand planning initiatives should be directly aligned to IT/Digital strategy and the overall strategy of the organization. The IT/business teams involved in IT demand planning should prioritize and budget for new investments based on a number of factors including regulatory requirements, technology lifecycle, value realization (cost, customer satisfaction, co-worker engagement) and risk mitigation. Cross-functional business-IT councils, as well as Business Relationship Managers, are blurring the functional lines to more closely integrate technology and functional expertise.

**Industry Research Results:** Most companies have a formalized process for IT Demand Planning that includes a partnership between IT and business, and the formal process forecasts at least five years into the future.

![IT Demand Planning Typically Forecasts 5+ Years](image)

Half of the member-companies that responded to the survey formally conduct IT demand planning once a year, however best practice suggests a more ongoing process would ensure reprioritization to meet business needs and proactive allocation of capital to the most strategic initiatives.
**Key Takeaways and Best Practices:**

- IT planning should be a continuous formalized process that is a collaboration between IT and the business, with a business-centric focus (aligned to business objectives). Certain companies responded to the survey that Business Relationship Managers work alongside the business to gather IT strategic and betterment needs.

- Some companies mentioned cross-functional governance councils such as technology planning committees exist to review, prioritize and approve projects. In addition, separate project management offices exist to track and evaluate project outcomes.

- IT should be a thought leader to find alignment in synergies between the enterprise, and to provide the knowledge around best-in-class technology solutions to meet business objectives.

- IT demand planning opportunities should be tracked in a system of record, with a business case that clearly articulates cost and value.

- IT demand planning should leverage shared technology interests, for example:
  - Technology to provide better insight to costs, preventative activities, and real time data to make decisions.
  - Utilization of automated work flows, robots, and other technology to increase efficiency and reduce O&M.

- Companies should invest in foundational capabilities to enable long-term strategic goals, including CI/CD (Continuous Integration and Continuous Delivery) applications, mobility, cloud, analytics, automation tools, etc.

- Value realization and capture is a maturing process within the industry. Many companies responded that they currently do not have a formalized process to track value achieved from IT capital expenditure projects. Approximately 25% of companies that responded stated that value capture is a shared responsibility between the Finance and Digital organizations.
Robotics Process Automation (RPA):

Robotic process automation ("RPA") is an emerging technology that can be utilized to automate a wide array of processes which can create significant value for the business. There are many processes within the finance and accounting space consisting of manual activities being performed by human employees that could potentially leverage RPA to significantly reduce the amount of time an employee has to spend performing these activities. In addition to employee time-savings and the potential for strategic time reallocation, RPA can execute business processes with more accuracy and significantly faster than a human employee.

RPA Governance

Summary: RPA has become a prominent topic of discussion as companies find ways to integrate digital labor into operations. There is a need to identify relevant risks and ask the right questions before diving into implementation. Without proper governance, the benefits of digital labor can quickly vanish. By doing the initial legwork, companies can position themselves for success. Streamlined processes and effective controls can help pinpoint issues early and ensure a positive ROI. The best way to do this is to think broadly about risk and oversight.

Best Practices Identified: Industry experts have identified the following best practices for RPA:

- **Project Selection:** Establish a formal methodology to inventory, analyze, prioritize, and select projects. Automating a bad process can destroy the ROI. Consider fully documented, less complex processes with high volume as prime candidates; re-engineer and streamline processes before subjecting them to automation.

- **Usage:** Establish a formal protocol that spells out a shared approach to RPA across business units and departments. Define the type of access a bot can have and define methods of identification and recognition of bots as digital workers within the company. Cost sharing / cost allocation strategy should be defined in advance of deployment as well as tools to monitor the operation of bots and measure benefits.

- **Configuration and Testing:** A centralized project team, preferably under the center of excellence (CoE), is best suited to conduct planning, gathering requirements, testing, and getting formal approvals from multiple stakeholders. A strong project team of experienced people can identify issues upfront and save costly rework.

- **Operation:** People in this role monitor the capacity, availability, and performance of bots in production. A centralized control room with the ability to monitor and control every bot is recommended. Define and document what control room staff can and cannot do with the bots and bot ID’s. Create plans for unexpected downtime, repairs, opportunities for improvements etc.

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Technology within Finance: Current State and the Cloudy Future

- **Compliance:** A comprehensive strategy to monitor bot compliance with various rules and regulations is essential. Design controls and review them periodically to ensure that the controls are effective. This is extremely important in cases where the digital worker assumes different roles and may run into segregation of duty issues.

- **Cybersecurity and Data Privacy:** Bots may access multiple systems and confidential information daily making them a target for hackers. Assess these risks and define measures to prevent unauthorized access of any kind.

- **Backup Plans:** Contingency plans should be defined in case the bots cannot carry out their assigned role. Monitor availability of human staff that can perform the tasks in the event backup is needed.

- **Change Management:** A well-defined communications plan is crucial for securing “buy-in” for RPA adoption from all concerned stakeholders including executives and employees of all departments involved. The plan should address the who, what, when, where, and why aspects of automation. It should highlight the benefits of RPA and strive to answer potential concerns that employees might have regarding their role in a post-RPA era.

- **Documentation:** Comprehensive and easily available documentation of all controls, procedures, and contingency plans can spell the difference between success and failure for new technologies like RPA.

**Industry Research Results:**

A survey of EEI and AGA member companies was conducted regarding governance measures in place for RPA. Approximately one half of the members have either implemented RPA or are in the process of implementing it. For those companies that have implemented RPA:

- Bots are operated/controlled by IT (60%) and Business (40%) however, business is always responsible for the transactions performed by RPA.
- There are significant concerns about segregation of duties and many companies have not yet defined RPA specific controls.
- The survey also indicates that many companies have RPA implementation localized in a department or functional area as opposed to a companywide deployment.

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4 The task force identified the following Deloitte article that provided some good quick information on robot identity best practices: [https://www2.deloitte.com/content/dam/Deloitte/in/Documents/risk/in-ra-bot-identity-management-presentation-final-print-noexp.pdf](https://www2.deloitte.com/content/dam/Deloitte/in/Documents/risk/in-ra-bot-identity-management-presentation-final-print-noexp.pdf)
Following is a summary of the numeric survey results:

<table>
<thead>
<tr>
<th>EEI-AGA Survey Results - Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>1. Use RPA?</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>2. Who Controls/Operates BoTs</td>
</tr>
<tr>
<td>IT</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>3. What IDs do the BoTs use</td>
</tr>
<tr>
<td>System (Generic)</td>
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<tr>
<td>4</td>
</tr>
<tr>
<td>4. Who is responsible for Transactions</td>
</tr>
<tr>
<td>Business</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>5. Review Process Defined for BoT Access</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>6. IDs BoTs use for different automations</td>
</tr>
<tr>
<td>Same</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>7. Concerned about segregation of duties?</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>8. Specific new SOX controls?</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

**Key Takeaways and Future Research Suggestions:**

- Establish an RPA Center of Excellence to systematically deploy the technology across the organization instead of in silos.
- Select processes that have been scrutinized or optimize processes before embarking on automation effort.
- Companies along the RPA journey have experienced that it shines a spotlight on process opportunities within an organization, including opportunities to optimize business processes as well as supporting processes (e.g., access management and compliance).
- Drive robust communication among various stakeholders throughout the RPA lifecycle.
- Think of the bots as “digital workers” and design their entire lifecycle from onboarding procedures to termination and disposal requirements.
- Design effective controls as a formal work stream, right from the beginning; assign responsibility for each step of the process to individuals (humans) to ensure that those steps are carried out.
- Document, document, and document every aspect of RPA and socialize them.
- The Technology and Finance Task Force recognizes that a deeper dive on management/governance of bots post-implementation should be a future research topic. For example, what processes need to be in place to ensure proper monitoring of bot performance and backup plans for breaks in critical processes.
Accenture provided a summary of "Automation done right":

Automation done right

1. Prioritize the process to be automated
2. Don't use automation to fix what is broken
3. The business case is critical for success
4. Lead with business and enable with IT
5. Select the right automation tools
6. Adopt a best-of-the-technology ecosystem strategy
7. Combine RPA with AI for breakthrough results
8. Leverage automation to evolve the workforce
9. Software development basics still matter
10. BOTS do need to be managed

RPA Use Case Identification, Tools, and Systems

Summary:
Initial identification of potential RPA use cases can be effectively managed by focusing on processes that are less complex, rules based, and highly-repetitive.

Processes that are identified as falling into this category should then be further evaluated from an automation feasibility standpoint. If the process meets the following criteria, it is likely to be a strong candidate for RPA:

- Exists within an electronic environment,
- Easily mapped into distinct rule-based decisions,
- Pulls data from and puts data in the same place every time, and
- Experiences a low number of process exceptions.

The following are process activities that have been found to meet the above four criteria and are strong use cases for RPA utilization:

- Data scrapping, copying, pasting/inputting from multiple sources (i.e. email, websites, PDFs) into another system/source,
- Data matching between multiple sources (i.e. account reconciliation), and
- Navigating within multiple applications to perform rule-based tasks and calculations that follow if/then logic.
Industry Survey Results:
The EEI-AGA Finance and Technology Task Force survey specifically requested feedback around processes that exist within member-companies' finance and accounting functions which they have evaluated as being potentially strong use cases for RPA. From the companies that were surveyed, the following use case categories were communicated. The percentages shown below are based on 77 responses.

(1) Other consists of any use case that had two or less mentions in the survey results.
The following graph shows the non-RPA systems currently being employed by the surveyed companies to complete these processes. The percentages shown below are based on 73 responses.

(1) Other consists of any systems or applications that had two or less mentions in the survey results.
A total of 16 companies out of the 29 that were surveyed have selected or are currently in the process of selecting an RPA vendor. The following chart displays the RPA vendors who have already been selected or are being considered for selection. In some instances a single company has selected, or is in negotiations with, more than one vendor, therefore the total vendor count is higher than the total number of companies being represented below.

Key Takeaways and Best Practices:
When adopting RPA technology, the following should be considered in addition to the use case identification and evaluation criteria:

- Not every process is automatable. However, even when the process is not fully automatable, portions of a process might be, and business value can still be derived from partial automation. Additionally, in some cases, the current process may not be ready for automation and therefore would require additional process re-engineering to get to the point of being automatable. Process optimization is best practice prior to automation. A process can be optimized differently for the purpose of automation than it might be for manual work. For example, error logic should be taken into account when automating a task.

- Prioritization and resource allocation is key to ensuring success throughout a company’s automation journey. The types of RPA projects need to be evaluated and prioritized from a feasibility standpoint and IT and business resources need to be properly allocated to ensure the
right people are being utilized.

- Certain companies have set minimum thresholds for the number of annual hours returned to the business through an automation use case in order to produce a positive return on investment (ROI) on the project. Minimum thresholds between 500-2,000 annual hours have been used to produce positive ROI's. Other times, automation use cases that result in high risk mitigation are selected even though they may not directly result in a positive ROI on the project.

- RPA may not be the best solution for an automation use case – instead, utilizing embedded system capabilities or specific tools for that use case may be preferable (e.g., an account reconciliation tool). Also, RPA may be a stop-gap solution as embedded technology in base applications continues to advance.

- Stakeholder buy-in is imperative at both management and process-owner levels. Change management needs to occur early and be inclusive.

Future Research Considerations:
As mentioned above, the top identified use cases within the finance organization were account reconciliations, journal entry calculations and posting, customer billing and payment, and invoice processing and payment. As the industry matures its RPA implementation, the Technology and Finance Task Force should consider providing a deeper dive on successful use cases within utility finance organizations.

Finance and IT Organizational Structures for RPA

Summary: As explained above, companies can benefit from establishing a Center of Excellence (CoE) to help systematically drive automation technology deployment across an enterprise. An effective automation CoE provides a set of clearly articulated, business-related services in support of an enterprise’s automation objectives and will help drive and enable successful automation adoption at a company.

Best Practices Identified: A well-chartered and effective automation CoE provides several services to an organization, which can broadly be divided into two categories:

- Automation governance and strategy: The core of any automation CoE is to centralize activities that should be done once for an entire enterprise, rather than within silos. This avoids duplication of effort and expense by taking an enterprise approach to activities such as RPA governance & controls, automation strategy, technology selection, RPA training, cybersecurity, and vendor relationships.

- Automation execution: The effort required to define, design and deliver automations across the numerous departments of an organization can either be centralized as part of the CoE or federated
out to multiple delivery centers in various business units. An automation execution function includes personnel that are devoted to automation development, process architecture, project management, and bot monitoring & controlling.

The suite of services provided by a CoE helps guide the organizational structure of the CoE and determines how it fits within an organization. Three general models exist, as described below:

- **Centralized**: A centralized approach puts the automation governance & strategy function as well as the automation execution function into one centralized team, and includes representatives from the business and IT. Enterprises that are just establishing automation capabilities typically default to this model while the capacity is being established by the organization. A centralized approach tends to work well in organizations that are highly-centralized and already contain a shared services culture. The benefits and drawbacks of this model include:
  - **Benefits**
    - Easiest to enforce governance and strategy
    - Least risk of duplicated effort
    - Greater opportunity for economies of scale
    - Creates high level of automation expertise within the CoE
  - **Drawbacks**
    - Greater risk of bot development bottlenecks
    - Less connected to stakeholders
    - Can be more difficult to spread adoption
    - Larger organizations risk losing control over RPA if BUs go off on their own

- **Federated or Hybrid**: A federated approach splits the automation governance & strategy function of the CoE from its automation execution function. Under this model, individual business units create teams which drive their own automation execution, but follow centralized governance and strategy that has been established by one enterprise-wide CoE team. After initial automation capabilities have been established by a centralized team, enterprises will often migrate to a federated model to scale the automation initiative. The benefits and drawbacks of this model include:
  - **Benefits**
    - Captures benefits of the centralized model related to governance & strategy, less effort duplication and economies of scale
    - Allows for synergies and knowledge sharing
    - Encourages widespread adoption and improves stakeholder engagement
    - Enables both functional and deep automation expertise
  - **Drawbacks**
    - Smaller business units may struggle to identify adequate talent or sufficient resources to adopt this approach
    - Requires careful planning and prioritization
    - Effective governance is necessary to mitigate risk losing control over RPA
    - Requires a strong training function within the central CoE team

- **Decentralized**: With a decentralized approach, all the functions of the CoE are replicated for each business unit. In effect, this approach does not create a Center of Excellence at all since automation governance and strategy is duplicated across business units. This tends to create drifting standards
and practices as well as increased cost from duplicated efforts. This approach is generally not advised or planned, but often emerges when companies fail to take a planned enterprise approach to automation.

**Industry Research Results:** Of the 19 survey respondents that are establishing RPA capabilities, 17 have also either established a CoE or are in the process of establishing one. Of the 17 member companies that are establishing CoEs:

- 10 members are adopting a centralized model, with the CoE housed within either IT or Shared Services. These centralized CoEs will contain both automation governance and strategy and automation execution functions.
- 7 members are adopting a federated or hybrid model, with the centralized CoE focused on supporting, governing and enabling the automations that will be executed by the business units.
- Most of the CoEs are focused on RPA specifically, but are contemplating other broader automation functions spanning the spectrum of work (i.e. smart workflows, character recognition, machine learning, AI, natural language tools, etc.)
- Most companies are establishing a CoE containing 4 to 6 personnel, although 2 respondents identified their CoE will contain 20+ personnel

**Key Takeaways:** Emerging automation technologies are in the process of reshaping the business landscape. When successfully implemented, emerging technologies such as RPA can help businesses drive down costs while simultaneously improving operating efficiency and effectiveness. To reap these benefits, it is critical for organizations to adopt automation technologies in a proactive, thoughtful and deliberate way. A well-chartered and effective Center of Excellence can help an enterprise accomplish automation success by executing on a cohesive, enterprise-wide strategy.

A set core functions ought to be centralized within a CoE—functions such as governance & controls, automation strategy, technology selection, training, cyber security, and vendor relationships. Centralizing these functions helps avoid duplication of effort and drives cohesive automation strategy and governance across an enterprise. On the other hand, it may be appropriate to house automation execution functions (such as demand management, bot development and bot maintenance & control) either within the centralized CoE team or federated across various business units. Each organizational structure contains benefits and drawbacks which companies should evaluate against their own unique circumstances. Organizations will set themselves up for future automation success by taking a proactive and mindful approach to the design and structure of key CoE functions.

**RPA Change Management**

**Summary:**

Change management is the application of structured processes and tools that enable individuals and groups to transition from a current state to a future state, to achieve desired goals. However, change management is less about the physical or virtual tools used to instigate change but rather it deals with the people side of change.
Throughout industry publications concerning the integration of RPA, the advice to companies was to have strong communication and clear strategies surrounding the implementation, adoption and usage of automation technologies and capabilities.

**Industry Research Results:**

Out of the 29 companies surveyed, many were unable to share change management insights due to the early stages of RPA implementation. However, the few that were able to provide answers had similar results:

- Employees are both excited about the possibilities of RPA implementation and skeptical about job reduction.
- Communication is key! Share successes on use cases and milestones while addressing fears often and in a direct manner.
- Involve stakeholders, and those that will use the automation, early in the process.

**Best Practices Identified:**

According to Deloitte, “Understanding how RPA will affect your existing workforce, and coupling delivery with appropriate change management and organizational design are critical steps for organizations looking to make the leap.” When developing future strategies, accounting for the organization’s current attitude around automation and process redesign methods, will be critical.

In 2016, PricewaterhouseCoopers stated four focuses to lift and sustain worker productivity in the move towards automation:

- Stakeholders being clear on the business strategy and the required values and behavior that align with the strategy.
- Creating a work environment that drives productivity and addresses the needs of knowledge workers.
- An integrated approach to getting people engaged, aligned, thinking and behaving productively.
- Empowering people with the latest technology so that they bring the best to every interaction and moment.

Automation, though increasing knowledge workers’ productivity, can cause upsets in the culture of a company. To combat the possible issues, strong leadership alignment should supplement an empowering and clear strategy.

**Key Takeaways and Future Research Suggestions:**

The largest takeaways from industry research is that communication is the key to success in integrating RPA, or any automation capabilities, into a corporation’s strategy and culture.
RPA has many functions, but it is not an “auto-bot.” It can mimic rules-based, repeatable processes but lacks an understanding of creativity and judgement needed for analyzation; therefore, potential use cases need to be re-engineered to best suit this type of automation. To create automation-friendly processes, involve the individual or team that was previously performing or that will use the result of the task when redesigning it. This will ensure that the process will add maximum value to the company while investing the stakeholders in its adoption and usage.

Automation can be a frightening topic for employees so, to combat this fear, involve the users in the automation creation. This will prove that RPA is not out for their job but is being implemented to supplement their jobs.

Technologies that provide cognitive and machine learning capabilities are rapidly approaching enhancements to the automation landscape, and the Technology and Finance Task Force will include these topics, along with data analytics use cases within the finance organization, as future research topics.
Technology within Finance: Current State and the Cloudy Future

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John Crennen   Xcel Energy
Sara Dudley-Smith   Berkshire Hathaway Energy
Blake Groen   Berkshire Hathaway Energy
Edward Leonard   Duke Energy
Jamie Loomis   Ameren
Patricia McKee   Tucson Electric Power
Stacie Palazzo   Entergy
Nichole Pejoro   PGE
Joe Pennino   Southern California Edison
Cody Rice   Berkshire Hathaway Renewables
Mark Siedband   Ameren
Graham Suchman   Berkshire Hathaway Energy
John VanDenPlas   Alliant
Doug Allen   AGA
Randall Hartman   EEI