The needs of the enterprise are consistent with the needs of the business

Continually increasing regulatory requirements are forcing organizations to adopt a centralized approach to managing risk and achieving compliance.

The escalation of fraud from unauthorized insider access, ID theft, and phishing, resulting from non-integrated systems is driving organizations to unify their systems.

An organization can only be as flexible, efficient and agile as its business processes interacting with each other.

- Improve Accuracy, Completeness, & Operational Efficiency

An organization needs to improve the operational efficiency and transparency of their business processes, whether it be for customer or account enrollment, management of complex serial and parallel assembly-line procedures, or organization of managerial functions.

- Drive Cross-Functional Collaboration, Transparency, and Ownership

Delivering a user-centric streamlined experience engages stakeholders and end-users throughout the business lifecycle, provides each with transparency of who's doing what, and provides the ability for each to engage efficiently in their specific tasks.

- Deliver Quick Results across a Consistent Digital Experience

Iteratively progressing through developing an application that spans across a variety of business functions provides organizations with a platform that can be promptly deployed and grow as features are added.

- The Right Partner

Organizations expect a partner who can provide both the business understanding and the technical depth to provide trusted advice and insight, work with them to design the appropriate technical solution, and deliver a high-quality platform in a timely manner.

Examining differentiating factors of BPM helps to build sustainable results in an organization

### Traditional Approach
- Process improvement treated as incremental vs. transformational to "core" business functions
- Focused on IT-centric implementation instead of customer experience
- Technology, process and organizational analysis siloed as drivers of efficiency
- Focus on eliminating costs vs. exploring and transforming cost structure and investment prioritization
- Limited understanding of ongoing risk drivers and impact on clients
- Exploration of client requirements often out-of-scope

### Differentiating Factors

#### Alignment to Strategy
- Links Business Architecture to support corporate strategy, aligning scope, activities and intended client experience
- Recognizes specific functional (e.g., risk control, information technology) and product needs (e.g., life and annuities)
- Drives transformation based on understanding of client, industry and regulatory needs

#### Data Driven Approach
- Fact-based dataset to identify and support improvement across strategic goals
- Creates extensive current state understanding of internal operations, technology, demand drivers, client needs and environmental factors
- Uses business architecture design principles to define an optimized end state
- Builds a prioritized roadmap and detailed plans for implementation

#### Operating Model Perspective
- Uses business architecture as a key driver in executing business strategy through process, technology, organization and footprint
- Builds operating model with efficiency, flexibility for growth and risk reduction
- Delivers on client, industry and regulatory requirements

#### Sustainable Results
- Creates central program management to provide consistent governance and change management in implementation
- Builds internal capability through the development of BPM experts
- Embeds culture of continuous improvement to sustain results
Instituting a Center of Excellence helps to maximize your BPM investment

A BPM Center of Excellence (CoE) brings new skills and ways of working to ensure that the organization, both IT and the business functions, can optimize their investments in and benefits from, a process orientation. The CoE provides architectural guidance, standards, methods and tools and process engineering to deliver enterprise wide BPM programs.

BPM vision & voice enable well communicated, sustainable solutions that resonate with all stakeholders by offering a compelling definition of the future.

Governance structure enables line of sight and monitoring of operational improvement efforts.

BPM talent management and training strengthens capabilities and awareness.

Organization design defines organization structure and decision rights to enable BPM effort across the enterprise.

Interaction model enables the BPM organization to work effectively with different teams to drive change and that linkages are established with other enterprise capabilities.

Deploying BPM tools and methods supports project identification, scoping and improvements to productivity, quality, risk & compliance controls and customer experience.

BPM is a management discipline enabling continuous optimization of select business processes directly affecting enterprise performance goals.

Business Process Management (BPM) is a formal and systematic set of activities and rules to maintain and improve cross-organizational processes and is vital for achieving operational excellence.

Continuous process improvement is enabled through key technology drivers within the basic architecture for BPM. Understanding the value associated with these drivers can assist organizations in promoting their objectives and goals through people, process and technology.

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Appian provides a digital transformation platform that enables tailored business apps with a premier user experience.

Appian is designed to provide the benefits of a COTS application while giving the option to customize to meet business requirements.

**Top 3 benefits that CxOs look for in a BPM solution:**
- Faster time to market
- Highly configurable & extensible low code platform
- Ease of long term maintenance at predictable costs

**PwC leverages Appian features to realize these benefits:**

- **Graphical Model-Driven Composition Environment**
  - Support for an object model driven UI that increases ease of use and adaptability —what you model is what you execute and automate

- **Human Interactions**
  - Ability to tailor user experience to organization unit, role, etc.

- **Business Activity Monitoring & On-Demand Analytics**
  - Support for analytic services that help a person, application or device by providing the Next-Best-Action

- **Business Rules Management**
  - Business objectives, the strategies, as well as the various execution initiatives are all captured in one unified platform

- **Connectivity**
  - Ability to integrate standard APIs as well as out-of-the-box adapters
Think big, start small, deliver iteratively

1 | Strategy & Assess
   | Establish vision, goals and objectives

2 | Iterative Design
   | Define high level design and dependencies to achieve iterative delivery of the solution

3 | Build
   | Agile methodology to deliver capabilities in each sprint

4 | Testing & Deployment
   | Conduct smoke test, QA test and automated regression testing

5 | Adoption
   | Help in change management, continuous improvement and post-implementation reviews

A well-guided development program is key to delivering scalable quality business solutions

PwC has developed standards & best practices to help accelerate your Appian project
- Descriptions
- Rules and Constants
- Structure and Naming Convention
- CDTs and Data Store Entites
- Querying
- Portal Reports
- Process Model and Display Names
- Process Model Security
- Process Model Alerts
- Archive Settings
- Sub-Processes
- Process Model Variables and Data
- Forms in Process Models
- Folders and Documents
- Notifications – Emails and Tempo Posts
- Annotations
- Process Model Workflow
- Records
- Actions & Related Actions
- Security
- SAIL Interfaces
- SAIL Variables and Data
- User Profile
- SQL Naming & Structure
- SQL Functions and Stored Procedures
- SQL Security
- Forms: Header, Button, Sections Layout
- Language & Helper Text
- Validations
- Record Dashboards
- List Views
- Tempo Reports
- Landing Pages
- Icons and Images
- Links
- Grids
- Audit

Application Health
- Run Appian health check often to know more about environment issues

Community
- Use plug-n-play apps, utilities and plug-ins from app market and shared components for deployment on existing Appian application

Reusable Blocks
- Re-use the expression, query rules instead of creating new Appian objects

Document Management
- Gain more control and flexibility by storing document metadata (name, type, security level) in Appian database

Dos
- Avoid querying huge data on multiple loads impacting memory consumption and degrading performance
- Avoid use of various logics in interface, such as many if-else conditions
- Handle ‘SaveInto’ logic from SAIL interface rather than having multiple ‘Script Task’ nodes
- Avoid using view definitions for handling data grouping and use Appian Query Aggregation functions for faster access

Don’ts
- Descriptions
- Rules and Constants
- Structure and Naming Convention
- CDTs and Data Store Entites
- Querying
- Portal Reports
- Process Model and Display Names
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### How is Robotics different?

<table>
<thead>
<tr>
<th>Robotic Automation Process (Robotics)</th>
<th>Service Oriented Architecture</th>
<th>Business Process Management System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Goal</strong></td>
<td><strong>Automate existing processes</strong></td>
<td><strong>Re-engineer processes</strong></td>
</tr>
<tr>
<td>Integration Method</td>
<td></td>
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<tr>
<td><strong>Presentation</strong></td>
<td><strong>Integration</strong></td>
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<tr>
<td><strong>Presentation</strong></td>
<td><strong>Integration</strong></td>
<td></td>
</tr>
<tr>
<td>Who will do it?</td>
<td><strong>Operations Employees</strong></td>
<td><strong>Software Engineers</strong></td>
</tr>
<tr>
<td><strong>Operations Employees</strong></td>
<td><strong>Software Engineers</strong></td>
<td><strong>BPM Engineers</strong></td>
</tr>
<tr>
<td><strong>Technical Approach</strong></td>
<td><strong>Use existing applications</strong></td>
<td><strong>Create integrations</strong></td>
</tr>
<tr>
<td><strong>Use existing applications</strong></td>
<td><strong>Create a new application</strong></td>
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<tr>
<td><strong>Benefits</strong></td>
<td><strong>Benefits</strong></td>
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<td><strong>Drawbacks</strong></td>
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</tbody>
</table>

### Benefits

- Does not require many software developers
- Does not require knowledge of integration or data layers of required applications
- Potentially the quickest to implement
- Optimizing staff at a fraction of cost
- Best in operationally focused organizations
- Modern applications have integration layers
- Integration layers (APIs) typically don’t break on new releases
- Exposing new services is proven to improve agility of business
- Services can be reused
- Services can be monetized and sold
- Can break if user interface changes as vendors upgrade versions
- Can ossify business in current applications
- Does not encourage creation of APIs
- Need Robotics governance and SMEs
- Cost of operating “robots” may be higher than other options
- Requires integration architects and developers
- Legacy applications often don’t have integration layers/APIs which may require work to create (and may rely on Robotics)
- Requires carefully integration strategy planning
- Redesign of business process can unlock efficiency and improve business outcomes
- Robotics, NLP, OCR, and other ‘AI’ can be part of a new BPM process
- Often still requires human interaction
- Requires a new vendor solution and expertise if BPM is not already used
- Limits interface and integration options to those available in vendor solution
- **Data Analytics Engine**

### Process Discovery

The use of data to find inconsistencies and inefficiencies in processes by analyzing system log files to trace and map how processes are executed.

### Process Automation Orchestration

The use of RPA, BPM and cognitive tools to automate processes as well as to centrally coordinate and control the flow of those processes.

- Reduce errors and inefficiencies resulting from manual tasks
- Build highly efficient and automated end-to-end business process – combining Appian with RPA from Blue Prism will allow more steps of a process to be automated
- Easy integration with existing applications as both Appian and Blue Prism sit on top of the existing IT applications

### Process Prediction

The use of analytics to identify meaningful patterns in the data captured during the steps of an automated process to predict future outcomes in the performance of the process.
Success of an Intelligent Automation program revolves around a robust development and tracking methodology backed by strong execution.

Intake and Prioritization
- Collect and gather data through surveys, workshops and process mining
- Assess process and opportunities for suitability, complexity and value
- Use process discovery methods and identify and tweak cost and benefit levers
- Produce tactical implementation plan and rollout schedule backed by business case

Govern and Support
- Create a Center of Excellence and operating model framework to govern and provide best practices for the deployment of intelligent automation
- Ensure the right controls, security and risk mitigation are developed for a digital workforce
- Define roles and responsibilities
- Monitor operational performance metrics and coordinate solution maintenance
- Manage Infrastructure and Vendor Relationships

Benefits Tracking and Change Management
- Drive operational excellence through efficient and reliable oversight of the automation program
- Constantly monitor organizational design to ensure impact of automation is aligned and fully recognized
- Develop strategic trainings and communications to best equip talent and optimize the workforce

Design, Develop and Deploy
- Design and build holistic solutions comprising of various cognitive capabilities focused on the end-to-end processes
- Orchestrate the flow of the intelligent automation solutions centrally
- Identify meaningful patterns in the data captured during the steps of an automated process to predict future outcomes of the process’ performance
- Select the best automation strategy and vendor that solves the problem

Implementing BPM and RPA using Appian and Blue Prism

<table>
<thead>
<tr>
<th>Appian</th>
<th>Blue Prism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>Start</td>
</tr>
<tr>
<td>Appian process triggered</td>
<td>Construct web service URL using parameters</td>
</tr>
<tr>
<td>User populates investor onboarding form*</td>
<td>Confirmation number generated</td>
</tr>
<tr>
<td>Investor details stored in database</td>
<td>Enter data into the form and creates submission</td>
</tr>
<tr>
<td>Invoke Blue Prism Process</td>
<td>Blue Prism triggers investor onboarding web form</td>
</tr>
<tr>
<td>*Manual Operation</td>
<td>Blue Prism reads scanned investor request form and extracts information</td>
</tr>
<tr>
<td>Confirmation number returned to Appian</td>
<td>Outputs: Confirmation Number, Investor ID</td>
</tr>
<tr>
<td>Outputs: Confirmation Number, Investor ID</td>
<td>Outputs: Confirmation Number</td>
</tr>
<tr>
<td>Appian task triggered to review information</td>
<td>Email sent to notify user of new task</td>
</tr>
<tr>
<td>Email sent to notify user of new task</td>
<td>User reviews investor details and approves with comment</td>
</tr>
<tr>
<td>User reviews investor details and approves with comment</td>
<td>Investor details updated in database</td>
</tr>
<tr>
<td>Investor details updated in database</td>
<td>End</td>
</tr>
<tr>
<td>Email sent to notify user of task completion</td>
<td>End</td>
</tr>
</tbody>
</table>

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PwC’s Technology Delivery Services

Why PwC

PwC has a team of professionals with in-depth experience guiding critical digital systems, launching and executing large scale complex transformation and modernization programs. We’re prepared to help you from day one.

PwC brings success-focused delivery methods and accelerators along with customized tools and processes to focus on driving effective leadership, confidence in progress and delivery and control.

PwC has executed large digital transformation projects for many of our clients and has met the mark and, at times, exceeded the mark on quality, development velocity, project management and on-time delivery.

PwC is a leading professional services firm with a strong reputation in delivering business process redesign and engineering for our clients ailing from varying business problems.

We provide architectural guidance as well as the hands-on engineering skills needed to support delivering your transformation program, onsite, onshore remotely and offshore.

We believe in human-centered design with impact: Connecting the ideal human experience to the business transformation that makes it real.
Driving an optimized technology program to support key business functions requires continuous decisions on the overall strategy and component selection.

A scalable and comprehensive technology program needs to address three levels to be effective in supporting business functions and delivering business value:

1. **Strategy**
   - What are the business objectives technology will be addressing?
   - What are the capabilities that should be incorporated?
   - What are the initiatives that should be prioritized?

2. **Architecture**
   - How will technology platforms and tools support the solution?
   - How will information exchange be handled throughout the solution?
   - How will additional non-functional requirements be addressed?

3. **Execution**
   - How will this technology be implemented and deployed?
   - How will iterative change be handled?
   - How will the solution be validated to user and technical requirements?

Effectiveness
- Capabilities able to address business scenarios and events

Efficiency
- Speed in operating and interacting with systems to achieve a business outcome

Cost
- People, platforms, and operations to develop, maintain, and support solution

Consistently realizing value for our clients on digital projects by providing breadth and depth of focus from strategy through execution:

Delivering Value Leveraging Technology from "Strategy through Execution"

**Strategy**
- Improve efficiency and service quality, reduce application portfolio risk, improve customer service, manage overall expenditure
  - Conducted an application rationalization exercise for a regional retail bank and identified immediate large savings for the short-term and provided a framework and process to ensure initiative alignment and portfolio management.
  - Revising the overall labor costs, reducing hardware and software maintenance costs, increasing capabilities
  - Identified and eliminated redundancy in functionality, technical platforms and infrastructure within IT environment for an investment and insurance company.

**Architecture**
- Reduce time-to-market, increase resource efficiency, increase automation, reduce defects
  - Automated report generation and data validation for a large global asset manager. PwC consolidated data from ad-hoc sources and provided a scalable report automation framework that allowed employees to focus on higher value add analysis and commentary.
  - Reduce time to respond to regulators, reduce fines to regulators for tardy responses, increase savings on overall payouts
  - Helped to architect a mutual fund fee remediation analytics platform for a major wealth management firm. The platform processed restitution payments for thousands of clients and enabled responses to clients in a shorter time.

**Execution**
- 25% reduction in software cycle time, 5x reduction in defect hiding cycle time, 15% increase in resource efficiency
  - Helped client to create and implement a customized iterative software development process based on Agile for a medical device company. This process tied planning through development and testing and created a continuous feedback for learning.
  - Improve user experience, time-to-market for changing regulations, and operational efficiency
  - Redesigned and developed the licensing system for a nationwide organization of financial regulators. PwC helped to design the customer journey, configure the multi-component cloud infrastructure, and develop and test the application across data, middleware, and omni-channel layers.

www.pwc.com/digital

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