Unlocking the Value of Continuous Monitoring and Control Automation Capabilities in SAP Process Control

Determining Where and How to Begin an Implementation

protiviti

Powerful Insights. Proven Delivery."
Introduction

Automation of controls is a key approach to improving efficiencies around business processes, enhancing visibility of business risks and increasing operational effectiveness. Choosing the correct technology, identifying the right functionality to deploy, and understanding how to get the most value out of the solution are fundamental aspects in the success or failure of control automation initiatives.

Organizations looking to invest in SAP Process Control (SAP PC) as part of their investment in SAP governance, risk and compliance (GRC) can improve a wide range of compliance challenges, operational controls and business processes by enabling:

- Risk reduction – by sending automatic notifications when exceptions occur
- Increased transparency around business processes – by empowering business teams and internal audit groups with consistent reporting on control status
- Increased efficiency of testing and compliance – by managing multiple compliance frameworks and enabling control test results to be applied to multiple controls from different regulations
- Automation of control monitoring – by enabling SAP PC to continuously monitor and report on master data, business transactions and SAP configuration changes or exceptions
- Automation of policy management – by allowing companies to centralize and manage the process of policy acknowledgement, thus reinforcing controls

Many companies don’t know how or where to begin to take advantage of the SAP PC solution. And when they do start an implementation, many still don’t understand how to use the solution’s capabilities to their full advantage, therefore failing to maximize their investment. This white paper provides an overview of high-value SAP PC functionality to consider in an implementation and the initial steps to starting a deployment.
END-TO-END MANAGEMENT OF COMPLIANCE AND CONTROLS

Organizations can benefit from the SAP PC solution not only to improve compliance and control documentation, but also to continuously monitor master data, system transactions and SAP configuration parameters; manage company policies proactively; and reduce operational risk by enabling automated alerts when control exceptions occur. Organizations can use SAP PC to institute automated, exception-based monitoring of compliance or business performance controls by extracting relevant data directly from SAP systems and keeping management informed about potential control exceptions that may affect compliance, risk status or overall business performance. An overview of basic SAP PC functionality is shown in Figure 1 below.

<table>
<thead>
<tr>
<th>SAP Process Control Functionality</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document</td>
<td>Document controls and policies centrally; map to key regulations and impacted organizations</td>
</tr>
<tr>
<td>Scope</td>
<td>Perform periodic risk assessments to determine scope and test strategies</td>
</tr>
<tr>
<td>Evaluate</td>
<td>Evaluate control design and effectiveness; raise and remediate issues</td>
</tr>
<tr>
<td>Monitor</td>
<td>Perform automated, exception-based monitoring of ERP systems</td>
</tr>
<tr>
<td>Report</td>
<td>Support decisions and promote accountability with insightful analytics and sign-off</td>
</tr>
</tbody>
</table>

Figure 1: The SAP PC application can help organizations automate compliance, controls monitoring and internal controls management.

There is high-value functionality in the application that organizations should explore, not only to manage multiple compliance frameworks more effectively, but also to enhance their business processes. Examples include:

- **Continuous Control Monitoring (CCM):** A key strategy for control governance that includes defining rules in the SAP PC “Rule Engine” to monitor master, transactional and configuration data against predefined benchmarks on an ongoing basis to provide alerts when changes occur (e.g., a rule to monitor whether payment terms are changed for a specific vendor account group).

- **Integration with SAP Access Control:** SAP PC is integrated with the Access Risk Analysis functionality in SAP Access Control to monitor segregation of duties (SoD) and other access violations. This is helpful because unresolved access risks can be routed using SAP PC for further investigation or to assign mitigating controls in the event the SoD violations cannot be resolved.

- **Control Framework:** Organizations can use SAP PC to “harmonize” compliance and control structures across relevant regulations. Controls (e.g., compliance, audit, risk, IT and legal) can be centralized, and documentation of processes, risks and controls can be streamlined in the application.

- **Policy Management:** SAP PC enables efficient storage, approval and management of policies throughout the policy life cycle. With an automated approach to policy management, organizations can speed distribution of and improve communication about compliance policies and expedite acknowledgement and adoption by employees of new policies or policy changes. Additionally, policies and controls can be linked to improve reporting capabilities.

- **Compliance Certification Process:** Sign-off certifications and disclosure surveys in SAP PC allow organizations to document employee acceptance of responsibility for internal controls, such as those for Sarbanes-Oxley Section 404. By utilizing embedded analytics and reporting capabilities, organizations can gain continuous insight into the status of compliance and controls based on reliable and auditable data.
• **Workflow:** Organizations can use SAP PC to schedule end-to-end workflow-driven tests, self-assessments, and monitoring activities to execute test strategies and confirm the control framework is designed properly. If issues arise during either automated or manual evaluations of controls, they can be tracked in the application through to remediation and issue closure.

• **Risk-Based Scoping:** SAP PC also can be used to perform periodic risk assessments to determine scoping and test compliance strategies (i.e., which organizations and processes are in scope and what key controls are required). Risk-based scoping helps prevent over-testing of controls, which is costly, and under-testing, which is risky.

### THREE STEPS TO BEGIN UNLOCKING THE VALUE OF SAP PC

A U.S.-based FORTUNE 500 manufacturing and distribution company with global operations engaged Protiviti to determine the potential return on investment (ROI) and value of the implementation of the SAP PC solution. The client wanted to automate controls and processes to reduce compliance testing time and costs. It also sought to reduce its risk exposure by taking steps to ensure relevant parties would be notified immediately of any exceptions or configuration changes around key controls for master data, configuration data and transactional data.

Protiviti’s team of SAP experts used the following three-step process, including the creation of a pilot implementation (or proof of concept) to help the manufacturing company implement SAP PC.

**Step 1: Identify Controls and Processes to Automate, and Determine Expected ROI**

One of the most important, as well as most challenging, steps in the implementation of SAP PC is achieving consensus among key parties as to what processes and controls should be automated and what functionality to implement. Workshops with key compliance, audit and business process owners should be conducted to identify which areas in the business could benefit from compliance automation. For instance, where is significant time being spent on compliance testing due to the need to analyze large samples or create multiple screenshots? Or, what detective controls could be monitored more proactively to help reduce risk?

These discussions should yield a “wish list” of controls and processes that could be automated to create specific value for the organization. For example, a monthly report on manual journal entries (JEs) might be identified as a sample control to automate. Using SAP PC functionality, the organization could then build and implement a “Business Rule,” or CCM, that would alert the finance department any time – and only when – a manual JE over a certain dollar amount is created and/or a set tolerance is changed or disabled.

For any organization, the minimum end goals of using SAP PC are a reduction in testing time, immediate notification of a potential problem, and the opportunity to remediate the issue promptly. Figure 2 illustrates the potential benefits that could be realized by the organization through effective use of the SAP PC solution.

---

1 Protiviti recommends that organizations conduct a pilot or proof of concept of SAP PC to determine what value the use of the application could provide to the business.
Automation Opportunities | Related SAP PC Functionality | Potential Benefits
--- | --- | ---

**Compliance and Operational Control: Monthly Report on Vendor Changes** | Rule Engine – Master Data Exception report and automated alerts when key vendor master fields are changed | • Risk Reduction – Automatic alerts when selected vendor master fields are changed • Increased consistency in master data records • Reduction in testing time

**Confirmation that Production Environment Is Locked for Changes** | Rule Engine – Configuration Control Exception reports and automated alerts if configuration changes | • Risk Reduction – Automatic alerts when the production environment is open for changes

**Compliance Control Documentation for Multiple Compliance Initiatives** | Unified Control Framework – Load multiple compliance frameworks and link to same test (test once for multiple regulations) | • Increased visibility to control status and remediation activities • Reduction in testing time – One test can be applied to multiple controls

**Quantification of Potential SoD Risks** | Rule Engine – Transactional Data Exception reports notifying when users are given access with SoD Risks | • Risk Reduction – Automatic notification if SoD violations occur

---

**Figure 2: Example of Automation Opportunities with SAP PC.**

It is important to work with SAP PC experts during the implementation, particularly during the early design and scoping phases. Knowledgeable parties can help identify less-obvious opportunities for value creation and provide insight on which controls can and should be automated. (Some compliance controls and processes are simply too complex or critical to automate.) They also will be aware of preconfigured controls that can help organizations avoid building technical requirements for controls “from scratch.”

**Step 2: Plan the Implementation: Start With a Pilot or Proof of Concept**

Using a control automation “wish list,” an organization can define the scope of its SAP PC implementation. Do not try to adapt or “mold” the solution to current processes; instead, conduct a pilot to see what the solution can do for the organization. Some companies approach SAP PC pilot implementations as part of larger SAP initiatives. For example, in the case of the manufacturing company Protiviti assisted, the SAP PC pilot was a workstream within the SAP Access Control upgrade and security redesign project. (These concurrent projects enabled the reduction of overall implementation costs due to shared resources.)
Scoping SAP PC projects can be a potential pitfall, especially when organizations spend too much time in this stage. Following are recommendations for improving scoping efficiency:

1. Go for “quick wins” first. Identify which parts of the business can benefit the most initially from automation of compliance controls and processes and CCM. Below are a few examples:
   - Version control issues resulting from the tracking of Sarbanes-Oxley controls in Microsoft Excel.
   - Spending significant time correcting inventory costs due to incorrect inventory pricing (master and transactional data issues).

2. Start with one process (e.g., IT controls) to gain an understanding of the level of effort required around configuring CCMs. Then, move on to business processes, starting with limited controls (e.g., five, 10, or 15).

3. Focus on simple controls first, to create quick wins and learn how to leverage SAP PC functionality in your organization.

4. If the organization is already using SAP Access Control, quick wins can include:
   - Running periodic SoD reports in SAP PC and sending exceptions automatically to end users/role owners.
   - Setting up SAP PC to execute mitigating controls and confirming whether they are effective.

5. Identify high-value areas: Where does the organization need more controls so it can mitigate the potential for fraud and other risks? Where can the organization reduce compliance testing costs? For instance: A three-way match (e.g., purchase order, goods receipt, and invoice) requiring approval on payment of invoices that exceeded a certain tolerance setting; this control may be tested several times a year. This means that several months could pass while improper invoices are being paid. A CCM can be built into SAP PC so that relevant parties will be notified immediately by email when invoice tolerance settings are changed.

**Step 3: Track Progress and Continue to Expand**

After a pilot implementation of SAP PC is complete, companies can look at lessons learned and see what business units, departments or controls can be automated next. The pilot also will provide end users with initial knowledge on how to configure the solution and run reports. At this stage, organizations may want to provide end users with access to create their own Business Rules.

Project scorecards and heat maps can be used to determine whether SAP PC is providing the expected value and help the organization identify additional processes and business units that could benefit from automated controls and continuous monitoring. Demonstrating results is an essential part of gaining buy-in for expanded use of SAP PC in the business, as well as engagement by end users, who are essential to helping the organization derive value from the software.

The sample scorecard shown in Figure 4 illustrates how the automation of selected SAP Change Management IT General Controls helped the manufacturing company Protiviti assisted to reduce risk and create specific benefits beyond time saved for internal audit, external audit, and IT.

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Internal Audit</th>
<th>External Audit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefits</strong></td>
<td>• Immediate notification when user accesses transaction code SCC4 to change production client settings. Ensures user who made changes has appropriate access. Ensures the changes made to client settings were approved.</td>
<td>• Reduce hours spent on testing non-key change management controls.</td>
</tr>
<tr>
<td><strong>Timesavings</strong></td>
<td><strong>2 Hours</strong> (Per testing cycle)</td>
<td><strong>2 Hours</strong> (Per testing cycle)</td>
</tr>
</tbody>
</table>

Figure 4: Sample scorecard showing how SAP PC application has created specific benefits for key groups in the organization.
The heat map in Figure 5 shows the “before and after” impact of implementing automated compliance controls in three key risk areas: standard cost changes, customer credit control, and three-way match tolerances. These risks have moved from their current state of “Occurring” or “Likely” to either “Rare” or almost “Indiscernible” in terms of their occurrence.

![Heat Map](image)

**Figure 5:** Sample heat map showing positive impact of controls automation in three risk areas.

**CONCLUSION**

Unlocking the value of SAP PC requires that organizations define their short- and long-term GRC road map, and take time to understand how their investment in SAP GRC technology can create benefits for the business – from immediate reductions in compliance risk to operational efficiencies and long-term value creation.

Protiviti offers the following insights about SAP PC based on our experience helping to develop the business case and implementing this technology for our clients:

1. **Identify the right sponsors:** Which people in the lines of business, internal audit and IT need to buy in and support this effort?
2. **Outline roles and responsibilities:** Who will be the decision-makers, input providers and stakeholders in the process?
3. **Clearly define scope:** Invest the right amount of time and limit initial controls to configure. Consider enlisting third-party experts to make this process more efficient.
4. **Focus on “quick wins” first:** Understand current problem areas. In short, where does the organization need to improve its compliance initiatives and reduce risk immediately?
5. **Build and socialize your business case:** Leverage pilot results to determine which additional business processes and controls can benefit from automation.

The key with any SAP PC initiative is to start small and build on that success. Not every control or process in the organization can be automated. But many can and should be, and a strategic and measured approach to controls automation can help organizations to reach an ongoing state of continuous compliance.
ABOUT PROTIVITI

Protiviti (www.protiviti.com) is a global consulting firm that helps companies solve problems in finance, technology, operations, governance, risk and internal audit, and has served more than 35 percent of FORTUNE 1000® and FORTUNE Global 500® companies. Protiviti and its independently owned Member Firms serve clients through a network of more than 70 locations in over 20 countries. The firm also works with smaller, growing companies, including those looking to go public, as well as with government agencies.

Protiviti is a wholly owned subsidiary of Robert Half (NYSE: RHI). Founded in 1948, Robert Half is a member of the S&P 500 index.

About Protiviti’s SAP Application Control Design and Enhancement Practice

Protiviti’s ERP control specialists help companies optimize the configuration of their SAP controls to enhance compliance and risk management capabilities, as well as integrate GRC software solutions to improve continuous control monitoring and compliance automation capabilities.

Contacts

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone Number</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Harrison</td>
<td>+1.713.314.4996</td>
<td><a href="mailto:john.harrison@protiviti.com">john.harrison@protiviti.com</a></td>
</tr>
<tr>
<td>Toni Lastella</td>
<td>+1.212.399.8602</td>
<td><a href="mailto:toni.lastella@protiviti.com">toni.lastella@protiviti.com</a></td>
</tr>
<tr>
<td>Holly Marrs</td>
<td>+1.713.314.5146</td>
<td><a href="mailto:holly.marrs@protiviti.com">holly.marrs@protiviti.com</a></td>
</tr>
<tr>
<td>Ronan O'Shea</td>
<td>+1.650.678.0260</td>
<td><a href="mailto:ronan.oshea@protiviti.com">ronan.oshea@protiviti.com</a></td>
</tr>
<tr>
<td>Aric Quinones</td>
<td>+1.404.240.8376</td>
<td><a href="mailto:aric.quinones@protiviti.com">aric.quinones@protiviti.com</a></td>
</tr>
<tr>
<td>Carol Raimo</td>
<td>+1.212.603.8371</td>
<td><a href="mailto:carol.raimo@protiviti.com">carol.raimo@protiviti.com</a></td>
</tr>
<tr>
<td>Kyle Wechsler</td>
<td>+1.212.708.6369</td>
<td><a href="mailto:kyle.wechsler@protiviti.com">kyle.wechsler@protiviti.com</a></td>
</tr>
</tbody>
</table>
### THE AMERICAS

**UNITED STATES**
- Alexandria
- Atlanta
- Baltimore
- Boston
- Charlotte
- Chicago
- Cincinnati
- Cleveland
- Dallas
- Denver
- Fort Lauderdale
- Houston
- Kansas City
- Los Angeles
- Milwaukee
- Minneapolis
- New York
- Orlando
- Philadelphia
- Phoenix
- Pittsburgh
- Portland
- Richmond
- Sacramento
- Salt Lake City
- San Francisco
- San Jose
- Seattle
- Stamford
- St. Louis
- Tampa
- Washington, D.C.
- Winchester
- Woodbridge

**ARGENTINA**
- Buenos Aires

**BRAZIL**
- Rio de Janeiro
- São Paulo

**CANADA**
- Kitchener-Waterloo
- Toronto

**ASIA-PACIFIC**

**AUSTRALIA**
- Brisbane
- Canberra
- Melbourne
- Perth
- Sydney

**CHINA**
- Beijing
- Hong Kong
- Shanghai
- Shenzhen
- Beijing
- Hong Kong
- Shanghai
- Shenzhen

**INDONESIA**
- Jakarta

**INDIA**
- Bangalore
- Mumbai
- New Delhi

**JAPAN**
- Osaka
- Tokyo

**SOUTH KOREA**
- Seoul

**SINGAPORE**
- Singapore

### EUROPE/MIDDLE EAST/AFRICA

**FRANCE**
- Paris

**GERMANY**
- Frankfurt
- Munich

**ITALY**
- Milan
- Rome
- Turin

**THE NETHERLANDS**
- Amsterdam

**BAHRAIN**
- Manama

**QATAR**
- Doha

**KUWAIT**
- Kuwait City

**OMAN**
- Muscat

**SOUTH AFRICA**
- Johannesburg

**SOUTH KOREA**
- Seoul

**UNITED ARAB EMIRATES**
- Abu Dhabi
- Dubai

* Protiviti Member Firm
** Protiviti Alliance Member

© 2014 Protiviti Inc. An Equal Opportunity Employer M/F/D/V. PRO-0314-103051
Protiviti is not licensed or registered as a public accounting firm and does not issue opinions on financial statements or offer attestation services.