

## Procurement Systems Integration Within the Enterprise: Exploring Integration In The Cloud

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### Summary

One of the side effects of the rising stature and role of procurement in the past decade is that the function is no longer a purchasing silo of its own. As a result, procurement – both teams and systems – is interfacing with more systems as it expands its role and reach across the enterprise. An essential component of this expanding charter is the need to increasingly focus on influencing, controlling and managing front-line buying and spending decisions. To be effective, however, the mission requires linking procurement and process more tightly across all of the systems including ERP (financials), inventory management, human resources/human capital management (HCM), vendor management systems (VMS), customer relationship management (CRM) and other business applications.

Spend Matters research suggests that the rising need for connectivity and integration between systems touching on procurement mirrors four current business needs that many companies are looking for from procurement and finance organizations:

- **Flexibility** – Focused on the ability to integrate new systems quickly while adapting to the changing business environment
- **Control** – Influencing and controlling spending decisions on the front lines of the business
- **Visibility** – Insight into both spending activity and decisions, plus broader budgets and the ability to proactively manage cash more efficiently and effectively
- **Forecasting** – Using procurement intelligence for finance-driven forecasting, scenario building, budget building, etc.

In each of these four areas (explored in significantly more detail in the business and integration trend addendum at the end of this paper), business leaders and executives are the ones who benefit most from successful procurement and enterprise application integration.

But integration is just as critical to enable typical employees. On the frontlines of most businesses, properly configured and enabled P2P tools are just as ubiquitous and frequented as CRM or HR systems. More and more casual users that interact with a single system of record on a frequent basis (outside of ERP or employee benefits systems) are now touching on procurement.

For these employees, P2P can ideally serve as a bridge to drive greater accessibility into information contained across other systems – and likewise, can play a key role in the quality and use of data in other systems (e.g., supplier/vendor master). Yet systems integration and visibility is a key foundational component to enable the types of outcomes that typical frontline users are after whether they want to make a basic purchase and “do the right thing” or have a more advanced query or action they want to take.

In short, for both procurement and finance teams – not to mention line-of-business users – P2P and related systems integration has become the glue to cement better overall business strategies and, of course, successful eProcurement and e-invoicing surround strategies.

## Exploring the Evolution of Integration Strategies

P2P integration has never been a walk in the park. In fact, one of the major reasons that so many earlier SAP, Oracle eBusiness Suite, PeopleSoft and Ariba implementations became better known for the size and frequency of the IT integration checks that had to be written during initial deployments (and on an ongoing basis), rather than speed, finesse or spend capture, was due to the internal challenge and expense of behind-the-firewall systems-to-systems integration. Today, the same challenges often remain given the degree to which companies have customized their core financials, inventory and related systems. But business leaders are expecting and demanding more.

For one, companies aren't looking to spend the time it takes to play a test match (to borrow a cricket analogy) to gain early P2P integration success. They're looking to play a Twenty20 (T20) match that can be completed in hours or days – at least metaphorically. Business users should expect and demand more rapid systems integration than in the past. They are also focused on encouraging and enabling the right type of buying behavior rather than just acting as a policeman in a command and control system of P2P enforcement. Ultimately, integration is about making frontline users accountable, not just compliant. For this reason, P2P integrations are impacting the front-line user buyer experience – and changing the experience of the application (rather than just as a necessary byproduct of an initial roll-out).

Consider how finance as well as P&L owners are increasingly looking to bridge internal gaps between buy- and sell-side activities, using the visibility gained from real-time systems integration to gauge overall business activity and enabling balance of trade visibility with key partners when they need it versus having to wait days or weeks for the next report or spend refresh. In other situations, procurement and finance teams want to enable visibility across systems to drive regulatory compliance (e.g., meeting specific industry compliance requirements for financial services and healthcare buying tied to approved suppliers and even individuals from approved services suppliers).

One of the best litmus tests we have seen in looking at how successful (and sophisticated) procurement operations is checking out enabled P2P integration types. From examining these integrations, it is possible to not only deduce what type of industry a company is in (e.g., manufacturing vs. virtual goods vs. people-based) but also the risk gaps that might remain open. In the examples that follow later, we will examine specific integration types in more detail on an industry level.

## Exploring Typical Integration Linkages

Spend Matters observes four types of P2P integrations areas where eProcurement or other frontline buying systems are integrated in real-time.

- The **first** (and most common) is integration into core ERP/MRP environments focused on core financials and inventory
- The **second** is focused on procurement related integrations into a range of toolsets. These may include vendor management systems (VMS), software monitoring/metering/licensing applications, T&E and travel tools, contract management systems, supplier management applications and e-invoicing/AP automation tools
- The **third** is to more generalized business applications outside of procurement that are relatively similar across industries. This can include CRM, HR, specialized inventory, warehouse management, asset management, claims/warranty and related toolsets
- The **fourth** is industry-specific, such as in retail/point-of-sale (POS) systems. Other examples include contract management and e-invoicing capabilities necessary in environments such as oil and gas, where a \$200 million PO might have a single-line item: “drill an offshore well”

Let's explore the first area in more detail, digging into what we might call a “vanilla” cloud integration scenario with a company's core financial system. We should note that no integration is entirely “vanilla,” even in the case of standard ERP/MRP integration, which often forms the connectivity between front line buying and procurement activity and IT/finance systems. In the first area, typical fields that organizations map for integrations are often highly dependent on the specific ERP and business application packages they are integrating with.

In an SAP environment, for example, journal entries linked to cloud-based eProcurement transactions or a frontline buying environment that sits on top of a direct ERP procurement system must tie to specific objects mapped in the SAP environment, including projects, orders and cost centers (GL codes are just the ante). Specific requirements may differ based on the degree of the SAP environment's customization for financial accounting, corporate governance, managerial accounting and related areas.

In the case of supporting plan-driven procurement to consolidate ordering within core SAP ECC integrated with an external P2P system, organizations must consider not only what fields are mapped and integrated but which system relays information to suppliers (and then how supplier updates and responses are integrated back). The complexity of potential P2P integration into SAP integration is limited only by one's imagination – or specifically, the imagination of the IT and finance departments that originally deployed the system. For example, for internal cost allocations, one might opt for simple integration based on standard fields configured within a third-party (or ERP) eProcurement system with ties into inventory systems.

Others might opt for additional integration fields and cross-linked postings – and subsequent fields within the P2P toolset – for areas such as indirect activity allocations, material movements, overhead rates, delivery scheduling, transfer orders and related fields. The number of fields and complexity is fractal. Those that layer on an SAP APO (supply chain) or logistics/warehousing capability for either (or both) sales and demand planning can expect additional mapping requirements (e.g., manufacturing orders, stock movements, deconsolidation, inbound delivery tasks) in tightly coupled P2P and re-skinned front-end direct buying applications.

Supporting similar integration scenarios for other ERP suites requires a similar level of analysis and upfront requirement definition and business planning. However, the naming conventions of Oracle, PeopleSoft, JD Edwards, Infor/SSA solutions and other ERP packages may be different. In retail environments, additional integration types may be required.

## Expanding the Integration Story

In one organization that Spend Matters interviewed recently, a primary objective of P2P integration was to drive more granular and accurate cost accounting and chargebacks to stores on a location-by-location basis while simultaneously enhancing visibility into overall spending and tying orders to delivery. This organization drove its primary P2P integration objectives to focus on three system types: financials, warehouse management system (WMS) and logistics. By enabling real-time linkages across these platforms, the procurement and IT teams were able to enable ordering, tracking, visibility and goods receipts through a single interface. The integration data interchange is tied to P2P workflow that can split orders between different providers and internal inventory.

In splitting orders between suppliers, the workflow and physical movement of goods following an order is completely dependent on the type of goods. For example, office supplies are sent directly to a store from the office supply vendor, but janitorial and cleaning supply orders are routed to a specific vendor that maintains inventory at their warehouse. After an order, they palletize all of the SKUs desired by the individual store and send it on a truck to the store. In contrast, another party handles orders in the case of customer-branded SKUs (bags, gift wrap, etc.), and yet another party handles the fulfillment after the appropriate integration routing.

All of the heavy lifting happening in the back-end through the integrations is transparent to users. Moreover, this organization created a simple 15-page training manual that became the basis of the entire training program to get users up and running on the system regardless of the order routing, logistics and accounting reconciliation happening across internal and supplier systems on the back-end.

## Towards Holistic P2P Integration in the Cloud

As part of the specific research for this paper, Spend Matters spoke with the solution owners of cloud P2P solutions across different industries to better understand both the technical and business outcomes required (and desired) from the tighter coupling of their transactional buying environments with ERP and third-party business applications. One of the concerns we heard repeatedly in these interviews as well as past research is the importance of driving financial awareness and visibility. This can empower the business to make the best decisions while enabling centralized oversight and an information advantage in working with partners.

To enable this level of visibility, one organization focused on three primary integrations for frontline buying applications during the initial P2P deployment – financials, customer relationship management and their vendor management system (VMS). For financials integration, the company has leveraged Business Process Execution Language (BPEL) as its integration framework/codebase. Information is exported via the P2P applications through a web services layer. Today, all non-T&E based spend at this organization flows through a cloud-based P2P solution (Coupa). The company is using additional integration glue in the form of a third-party spend analytics platform that sits on top of all of its spending, including indirect, services and T&E. Future plans call for additional integration with the organization's contract management environment.

In focusing on P2P integration in its initial systems rollout, the company saw an opportunity to create a single supplier master/vendor master view and record while supporting rapid global growth and expansion into new locations and geographies. It also saw an opportunity to gain better visibility into the balance of trade with key suppliers who are also customers, looking at the total aggregate relationship (including price and other factors) through looking at a combination of spending and various customer activities as represented in P2P, CRM, financials and related applications.

In terms of specific category integration, VMS proved linkages would prove essential. For companies in the virtual goods industries (financial services, consulting, BPO, etc.), spending on contingent and SOW-based labor represents not only a big input on bottom line performance, but can also impact the top line based on the ability to better serve customers. Through looking at reports based on feeds from P2P, VMS and related toolsets, the procurement organization is focusing on delivering better services based on spending outcomes. Going forward, the company wants to extend its VMS and P2P integration to include contractor/supplier on- and off-boarding (e.g., identity management).

For travel and T&E spend, P2P cloud integration has enabled not just a new level of visibility and insight for category decision makers, but also frontline users and budget holders. For example, by tracking spend and budgets on a real-time basis, users are not guided to mandated outcomes (e.g., stay at the Hampton Inn versus the Marriot), but can see the actual budget impact (and budget availability) based on trips. Users can also use third-party booking sites (e.g., Expedia, Travelocity, Orbitz, Priceline, Kayak) to check whether or not the third-party deal is better than a negotiated corporate arrangement, while staying in compliance with overall budgets and program policy.

One of the lessons learned in the integration process is the challenge of driving to a single supplier/vendor master. Gaining a common view of truth into spending across a rapidly growing global business with hundreds of thousands (or more) GL account code combinations is not something that companies should underestimate not only from a systems integration perspective, but also a P2P performance one as well. In an environment where cost centers may change with potentially a million or more account code combinations to look up and map to, instant queries, responses and updates should not be taken for granted.

One of the most curious aspects of this company's integration experience did not involve any of the various challenges of tying its P2P environment through the cloud into other systems of record (while there were lessons learned in this regard, the overall experience and speed was "very quick," in an executive's words). No, the most curious aspect is the executive dashboard the company is using for overall views into company spending, balance of trade and related activities. The front-end reports are not coming from any of the P2P or spend visibility tools but rather a third-party generated reporting toolset – which of course is proof of the need for integration on the reporting front, given the many options for presenting integrated spending activity within P2P, spend analytics and other solutions.

## Conclusion

Based on our recent and past research (as well as our own experience implementing various procurement systems over the years), Spend Matters cannot overemphasize the importance of prioritizing systems integration as a core component of overall P2P strategy. Some companies may not select specific P2P systems based on the native and cloud integration capability of the toolset over other areas (e.g., ease-of-use).

This needs to change, as we believe it is essential to think about integration even before a selection process begins – and for integration to have at least moderate consideration during a selection process.

## Specifically, Spend Matters recommends:

- Thinking through both industry and company-specific integration requirements as early as possible (i.e., pre-selection)
- Viewing integration as a buy-side looking glass on a complex enterprise world. P2P can – and should – serve as a surface layer for integration to broader business enablement (e.g., enabling a better delivery of services to customers through third-party contractors managed by procurement); indeed, under ideal integration scenarios, a P2P front-end should really serve as a surface layer gateway to a complex world behind the wall (the faucet to a complex array of pipes and plumbing knitting together internal and external business processes, systems and participants)
- Prioritizing integration capability when making a P2P decision by considering a vendor’s track record for integration scenarios while simultaneously considering absolute capability and usability
- Trusting but validating when exploring vendor claims on past P2P integration experience; companies should ask for use-cases and references for similar environments wherever possible; such discussions may surface surprises even around basic areas to suggest further initiative prioritization down the line (e.g., enabling a single or virtual supplier/vendor master)
- Using integration scenarios to better enable procurement to meet specific business requirements today and changing requirements tomorrow; given the importance of P2P systems in enabling overall procurement results delivery both today and tomorrow, companies should look at integration as a continuous process

## Researched and produced in co-operation with Coupa.



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## Research Addendum

### Integration Requirements Directly Map to General Company, Finance and Procurement Business Trends

The rising need for connectivity and integration between systems touching on procurement mirrors four current business needs that many companies are looking for from procurement and finance organizations. In the main text of this research brief, we explored these four areas in a rapid manner:

- **Flexibility** – Focused on the ability to integrate new systems quickly while adapting to the changing business environment
- **Control** – Influencing and controlling spending decisions on the front lines of the business
- **Visibility** – Insight into both spending activity and decisions, plus broader budgets and the ability to proactively manage cash more efficiently and effectively
- **Forecasting** – Using procurement intelligence for finance-driven forecasting, scenario building, budget building, etc.

For those with the time who are curious to learn more about the subject, we've included this research addendum on the four areas.

**Greater flexibility** – In this regard, companies must be able to integrate systems quickly as they begin to expand inorganically (especially in cases where systems rationalization could be quarters, years or even decades off). The rapid integration of transactional buying (e.g., eProcurement, T&E, travel), compliance (e.g., eProcurement + financials + contract management) can make the difference between realizing bottom line synergies or not within the critical first and second years following a transaction.

Another example falls in rapid location/store expansion in the retail and food service/restaurant sectors. In these cases, companies can't afford to have a frontline procurement toolset – let alone stand-alone back-end tools – that can't communicate and relay information unless they want to waste a lot of in-store, IT, and systems analyst time on batch uploads and manual intervention to run and integrate reports.

**Greater control** – In the current business climate, companies value greater control more than ever. In driving overall frontline user compliance for buying activities, integration between procurement toolsets and third-party applications can make the difference between not only capturing additional spend under management, but affecting better outcomes as well (e.g., reduced overall spending, directing spend to key supplier partners to gain volume discounts/rebates). So much spend is purchased outside of what companies traditionally use front-end eProcurement for.

This is why integration, for example, between eProcurement tools, VMS systems (services procurement), travel and T&E is so important. Without the ability to triangulate to overall spending, budget and related supplier impact (volume trending, balance of trade, etc.) companies are operating in a control black hole for spending, which can lead to inane policies that often backfire when tighter control is needed (e.g., flagging POs above a certain amount for additional approvals, but not multiple POs tied to a single vendor under a threshold) across categories and systems.

**Greater visibility** matters for finance and procurement organizations that must become better at anticipating and forecasting cash flow and working capital requirements. From Spend Matters' view, there is not a business need more tightly correlated – in looking at positive outcomes – with systems integration between the right front-end and decision support procurement tools with core financials, supply chain, asset and inventory management packages.

Our research suggests that when companies stitch together different applications where spending resides through batch-refresh based spend visibility capabilities alone, the visibility into buying activity, liabilities (e.g., supplier invoices and maturities) is almost always rear facing. To drive greater visibility, procurement and finance teams can invest in business-driven, real-time linkages/tie-ins between both front-end transaction buying systems and other systems of record.

**Better forecasting** is a finance holy grail. But it is possible. Companies that can gain greater insight into buying activities through systems linkages have taken the first step to enabling better forecasting. Forecasting liabilities, cash flow, risk and related metrics tied to the corporate entity as well as individual business units/P&Ls and suppliers/partners is just the start in this regard.

More sophisticated companies that Spend Matters has researched and surveyed are beginning to think more holistically about forecasting in even more strategic areas – commodities, supplier quality, procurement/supplier fraud and overall relationships with suppliers (e.g., considering game theory in how to approach large-scale engagement and negotiations based on past and forecast buying trends and related patterns). Enabling this type of forecasting on anything more than a periodic, one-time basis is predicated on tight systems linkages.

As anyone who has gone through a sales and operations planning (S&OP) exercise knows, the process of gathering un-integrated systems data can consume 90% or more of the time for a given project or assignment, leaving precious little time to focus on the actual forecasting, modeling and scenario building. The same holds true of analyzing P2P (and broader company spending) activity and coming up with budgetary and planning placeholders, not to mention more advanced forecasting and planning activity (e.g., being able to put a more aggressive target on post-merger integration synergies from combining procurement functions and spend leverage of two organizations).