



WHITEPAPER

THE POWER BEHIND
COUPA'S SAP INTEGRATION

OVERVIEW

Understanding how Coupa integrates with ERP systems such as SAP ECC and S/4 HANA is an important element in understanding how Coupa's Spend Management platform can benefit a company's business and technical communities. While no integration with SAP ERP is ever 'plug and play' - even amongst SAP's own portfolio of business applications - having the correct connection technologies and best practices makes each integration project faster, more predictable and successful.

This paper provides an overview of how Coupa integrates with SAP ERP systems along with summary case studies showing the level of effort required to complete an integration from actual Coupa customers. It showcases that the tools and capabilities Coupa utilizes – such as a combination of pre-built and SAP certified integrations, auto extending full REST & Flat File API coverage and data extraction toolkits along with the expertise gained from over 90 successful production SAP integrations, significantly accelerate integration efforts, making the integration delivery the shortest part of a typical implementation cycle, typically 4-6 months with a small team.

COUPA CONNECTIVITY BY THE NUMBERS:

Over 90 global SAP implementations; over 90 million API calls per month;
Average API call speed: less than 1 second; Avg go-live time 4 months;
100+ go-lives in 2018;

COUPA AND SAP

Over 25% of the world's companies run SAP, and have for many years. Yet in most companies, user adoption of automated business processes for procurement, invoicing and expense management still hovers around 20-40%. Coupa's modern, easy-to-use, easy-to-configure platform can change that. Coupa's integration to SAP is certified to serve as a strategic front end that extends the reach of your ERP system.

In the same way as SAP's own portfolio of spend solutions integrate with each other, (most of which have been brought under the SAP umbrella via business acquisitions), Coupa uses the same standard integration methods to connect with SAP ERP. Coupa's single platform approach ensures integration across all areas of spend to SAP is straightforward and painless.

WHO IS THIS PAPER FOR?

This paper is designed to provide IT professionals with a high-level overview of how to integrate Coupa into a typical SAP ERP environment and the typical level of effort required.

Further, in-depth content is available [here](#) which covers in much greater depth the more detailed aspects of integration and best practices.

HOW DOES COUPA INTEGRATE WITH SAP?

The options for integrating Coupa and SAP are varied both in their architecture (which objects get integrated and where) and in their means (which integration technologies are used), but taken together they provide a flexible range of proven reliability. A detailed explanation of the specific integration points with example data files can be found online [here](#).



VIEW ANY SPECIFIC INTEGRATION POINTS VIA OUR QUICK LINKS

- Accounting Data from SAP to Coupa
- Vendors from SAP to Coupa
- Users/employees from SAP to Coupa
- Purchase Orders from Coupa to SAP
- Receipts from Coupa to SAP
- Invoices from Coupa to SAP
- Invoice Payments from SAP to Coupa
- Exchange Rates from SAP to Coupa

INTEGRATION APPROACHES

COUPA CUSTOMERS TYPICALLY USE ONE OF TWO APPROACHES FOR INTEGRATING COUPA AND SAP:

- **Coupa API** – (fully documented at <http://integrate.coupa.com>) our standard REST-based APIs can be used by customers who would like to implement more sophisticated integrations and is a common approach for those customers with a middleware platform and resources available to orchestrate integration between Coupa and SAP.
- **Coupa CSV Flat Files** - a standard file format is available for all master and transaction data objects typically integrated between Coupa and SAP and can be leveraged by customers who have the resources available to translate between Coupa's format and the formats needed for SAP.

"Coupa has probably the most documented API's out there, unlike other solutions in this space"

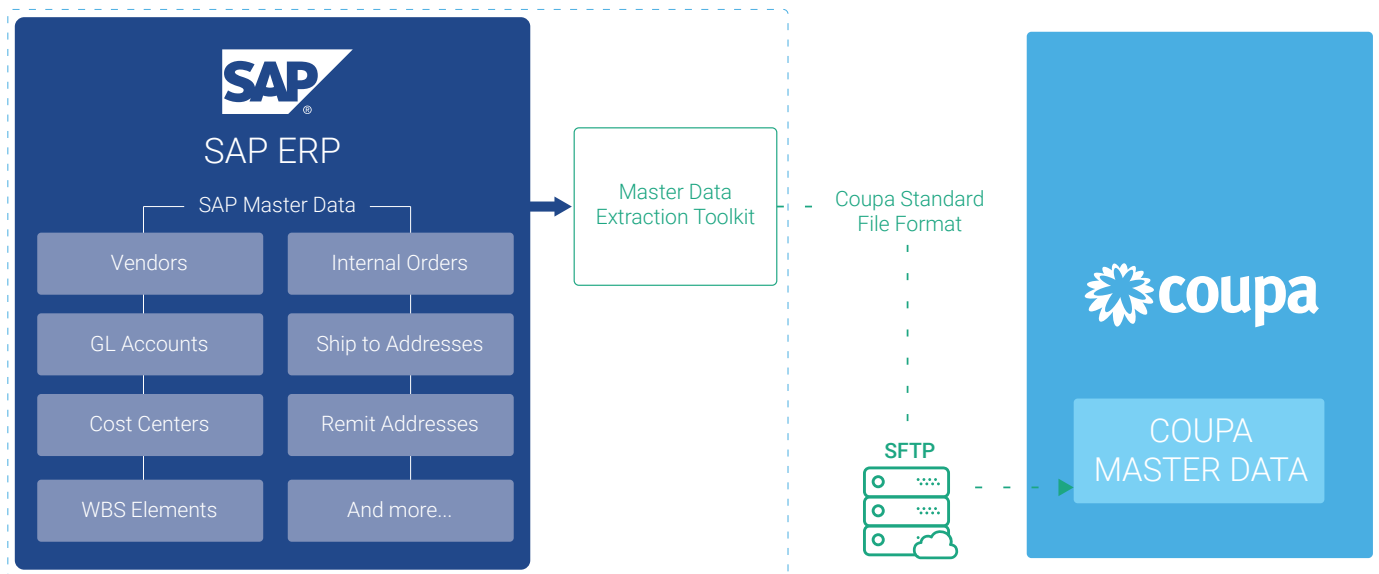
— Automation Integration & Information Manager, Global SI

In many cases, Coupa customers will mix and match various integration methods to provide an optimum model for integration. For example, you may leverage Coupa's standard flat-file formats for inbound master data and use the Coupa API's for outbound transactions. The method(s) chosen will vary from customer to customer and Coupa will provide guidance as part of the implementation process.

MASTER DATA EXTRACTION TOOLKIT

Coupa uses a data extraction toolkit to accelerate the process of integrating Coupa and SAP, extracting Master Data from SAP ERP systems like Cost Centers, GL Accounts, WBS Elements, Vendors and more and sending this data to Coupa. The toolkit assists customers with this data extraction and maps the extracted data into standard Coupa formats.

Utilizing SAP's Transport Management System, the toolkit is used as a jumpstart in the extraction of Master Data as part of the first time setup and for any deltas or changes to this master data after the system is in use. This reduces the time and effort required by customers to enable the Master Data integration feeds from SAP to Coupa.



The MDE toolkit is a great way to jumpstart the data extraction of your master data and saves a lot of time and effort rather than starting from scratch.

SAP INTEGRATION FLOWS

A typical integration flow between SAP, Coupa, and the customer's suppliers starts with enterprise master data being passed from SAP into Coupa followed by transactional data being passed on an ongoing basis. The integration scope, processes, and data flows vary based on the set of Coupa products that the customer chooses to deploy. Customers may choose to deploy the entire Coupa spend management suite, a few Coupa products, or even a single product. Some of the most typical data objects that customers choose to integrate are listed below.

FROM SAP TO COUPA

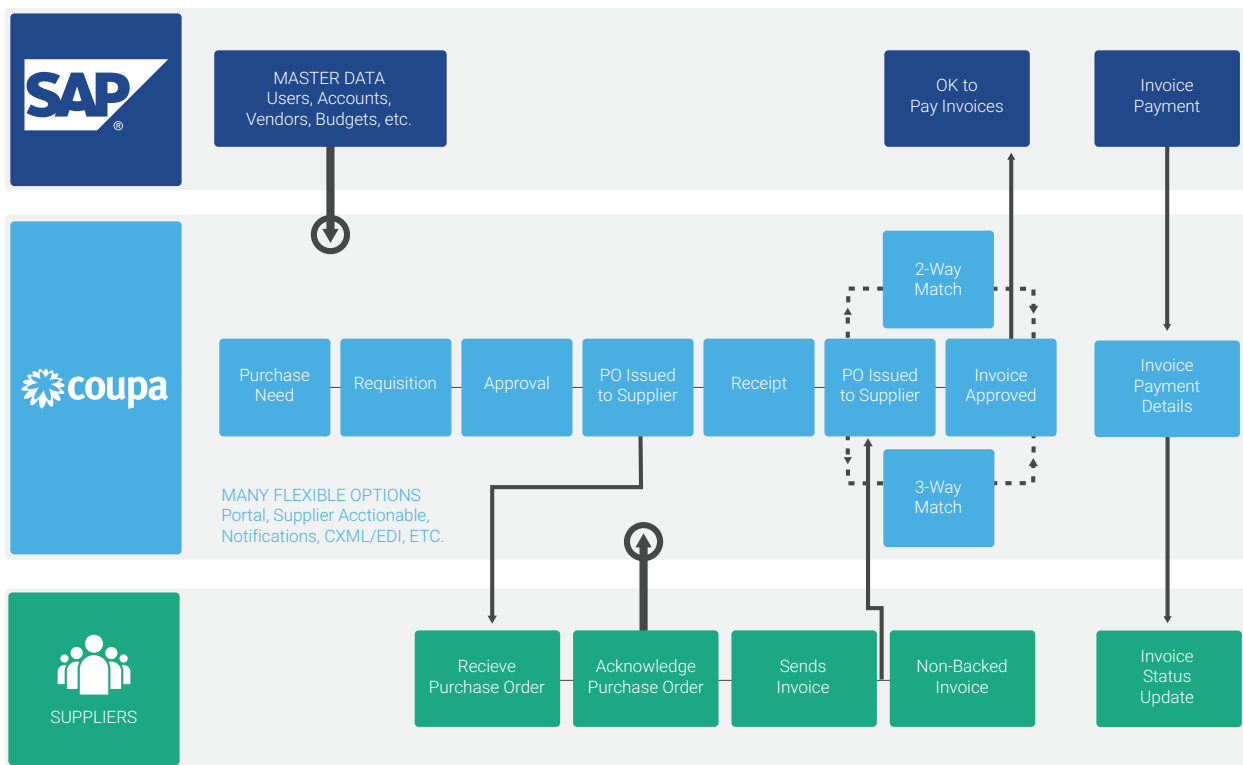
- **Vendors** - vendors with necessary details for completing transactions
- **Accounting Data** - company code, account category, general ledger, project, asset, WBS, internal order
- **Budgets** - budgets for each account to inform purchase approval decisions
- **Exchange Rates** - rates for international payments
- **Invoice Payments** - payments that have been made to suppliers

FROM COUPA TO SAP

- **Purchase Orders** - POs that have been approved
- **PO Revisions** - changes to POs that need to be logged in SAP
- **Invoices** - Invoices from suppliers that are approved as "OK to Pay"
- **Receipts** - end user receipt of goods or services from suppliers

EXAMPLE INTEGRATION FLOW: PROCURE TO PAY (P2P)

There are many different integration flows that Coupa customers use to implement Coupa with SAP. A common one is the full Procure to Pay (“P2P”) process. Under this scenario the entire process from purchase requisition through requisition approval, PO, receipt, invoice, and invoice approval is managed through Coupa. Suppliers get many flexible options to connect so that they can receive POs, acknowledge POs and send invoices. Suppliers can upload their information and catalogs and can make comments through the system to ask questions or resolve any issues. Suppliers also receive status updates by email or through the portal. Integration flows with SAP occur at the beginning of the process to bring in master data and at the end to push back process results including approved invoice for payment.



Example of an Integration flow between Coupa and SAP

HOW MUCH EFFORT IS REQUIRED TO INTEGRATE COUPA WITH SAP?

As of Sept 2019 there were over 200 successful global implementations of Coupa with SAP ERP. Implementations are typically – but not exclusively - performed using a combination of Coupa Professional Services, an implementation partner such as a Global SI and a small number of IT personnel on the customer side.

For the purposes of this paper, 7 Coupa customers are highlighted to show, from their perspective, the level of effort required to complete the SAP integration portion of the project with Coupa:

- 1 Global US Medical Technology Company
- 2 Leading US Networking Solutions Provider
- 3 Fortune 500 European Reinsurance Company
- 4 Large European Commercial and Retail Bank
- 5 Fortune 500 Canadian Financial Services Company
- 6 Global Tobacco Company
- 7 Fortune 500 Global Pharmaceutical Company

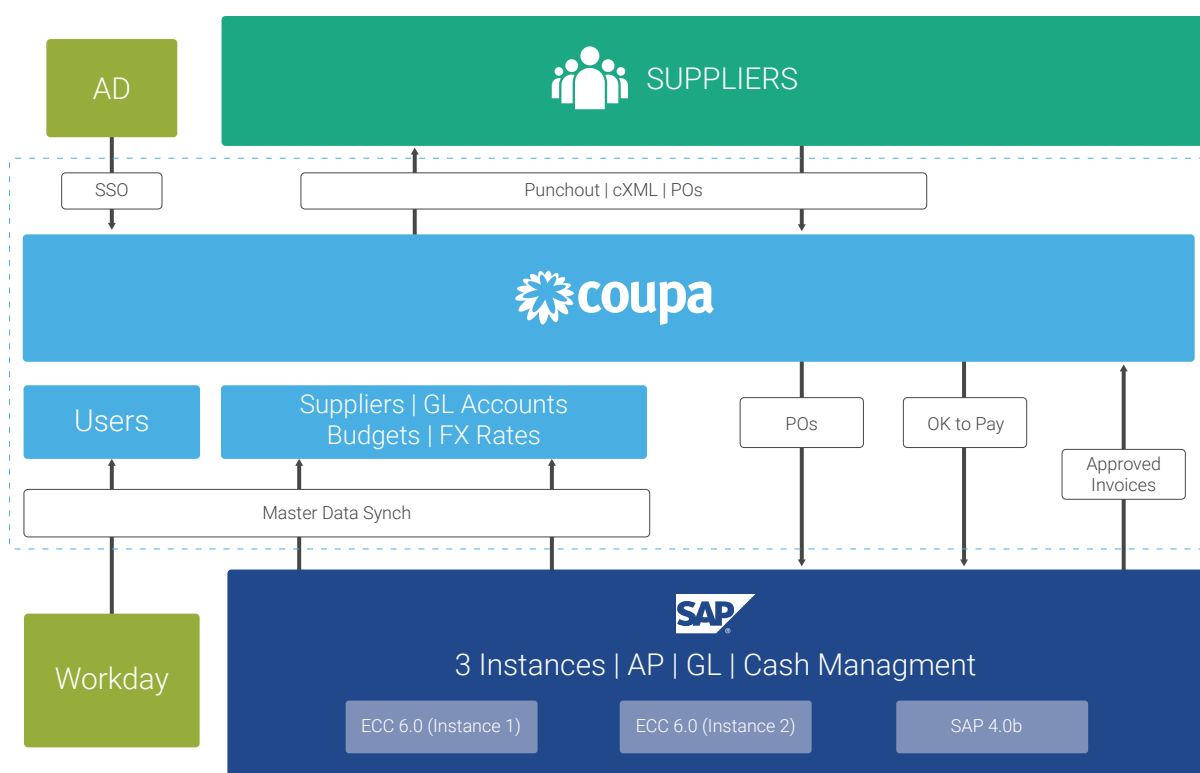
"...a very small Ninja group of business people and a couple of IT guys got together and implemented Coupa, almost overnight. It was just that simple. So we woke up one day, we had Coupa implemented, and everyone was pretty excited about it."

— Leading Network Solutions Provider

1 Global US Medical Technology Company

- Production Coupa Customer with 3 instances of SAP and Workday integrated and live
- Core Integration Model for Multi Instance ERP developed in 4 months. Integration technically available for 5 instances of SAP
- 7 Integrations Interfaces
- 4 IT resources @ 75%

49,000 Employees; \$10B Annual Revenue; S&P 500 Company

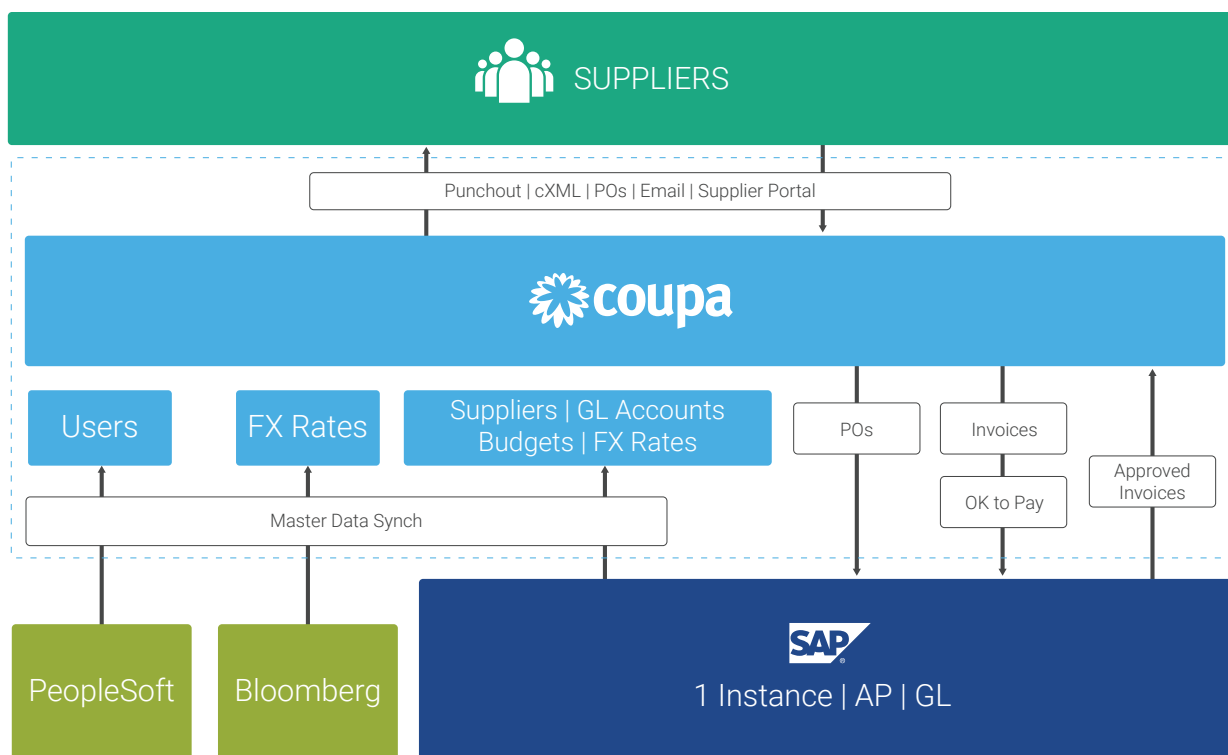


Integration Type	SAP Integration Point	Method	No. of SAP Instances	Integration Time	Resources Utilized
Master Data	Suppliers	FF	3	4 Months	1 x IT PM; 2xDeveloper; 1xMiddleware expert; 0.5 FTE per month maintenance
Master Data	Lookups (multiple)	FF			
Master Data	Budgets	API			
Master Data	Exchange Rates	FF			
TX	PO	API			
TX	Invoice	API			
TX	Invoice Payment	FF			

2 Leading US Networking Solutions Provider

- Instances of SAP, PeopleSoft and Bloomberg
- Production Coupa Customer with 1 instance of SAP integrated and live
- Core Integration Model for Multi Instance ERP developed in 3 months
- 8 SAP Integrations Interfaces (10 total)
- 2 IT resources @ 50%

9,000 Employees; \$5B Annual Revenue; S&P 500 Company



Integration Type	SAP Integration Point	Method	No. of SAP Instances	Integration Time	Resources Utilized
Master Data	Suppliers	FF	1	3 Months	1x SAP Developer @ 50%; 1x SAP Integration Expert @50% 0.25 FTE for Maintenance
Master Data	Lookups (multiple)	FF			
TX	PO	API			
TX	Invoices In	FF			
TX	Invoices Out	API			
TX	Invoice Payment	API			

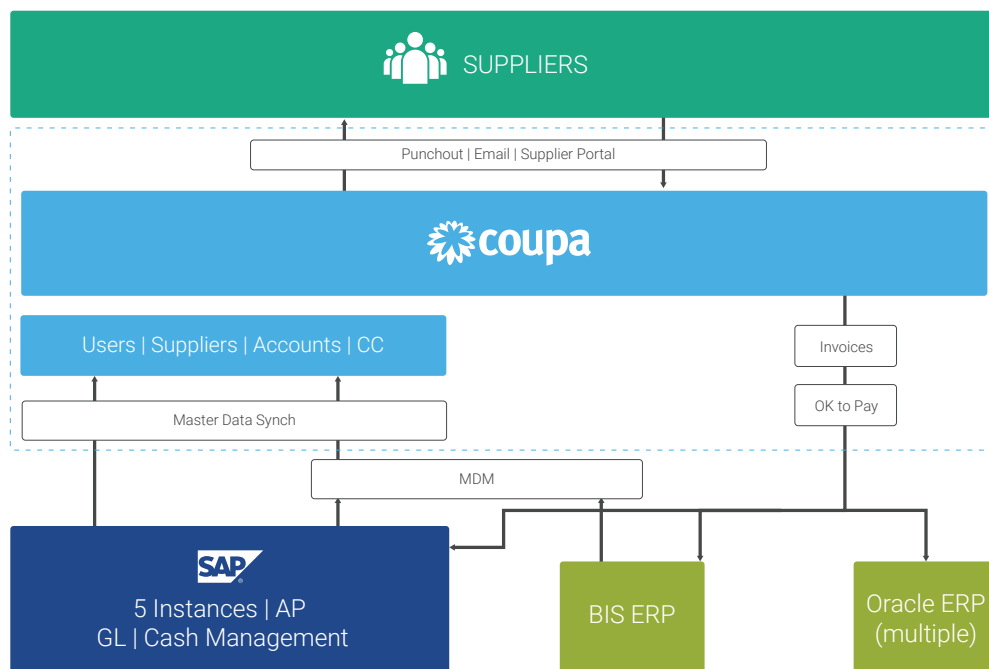
"As opposed to many traditional IT projects, that are labor intensive and require a lot of IT expertise, this one just didn't."

– Leading Network Solutions Provider

3 Fortune 500 European Reinsurance Company

- Pilot instance integrated in 6 weeks
- Production Coupa Customer with 1 instance of SAP integrated and live
- Core Integration Model for SAP ERP developed in 2 months
- 8 integrations Interfaces
- 2 IT SAP developers @ 50%

14,000 Employees; \$33B Annual Revenue; S&P 500 Company



Initial POC

Integration Type	SAP Integration Point	Method	No. of SAP Instances	Integration Time	Resources Utilized
TX	Invoices	FF	1	6 weeks	2x SAP Developer @ 50%;
TX	Invoices	FF			
TX	Invoices Payment	API			

Full Deployment

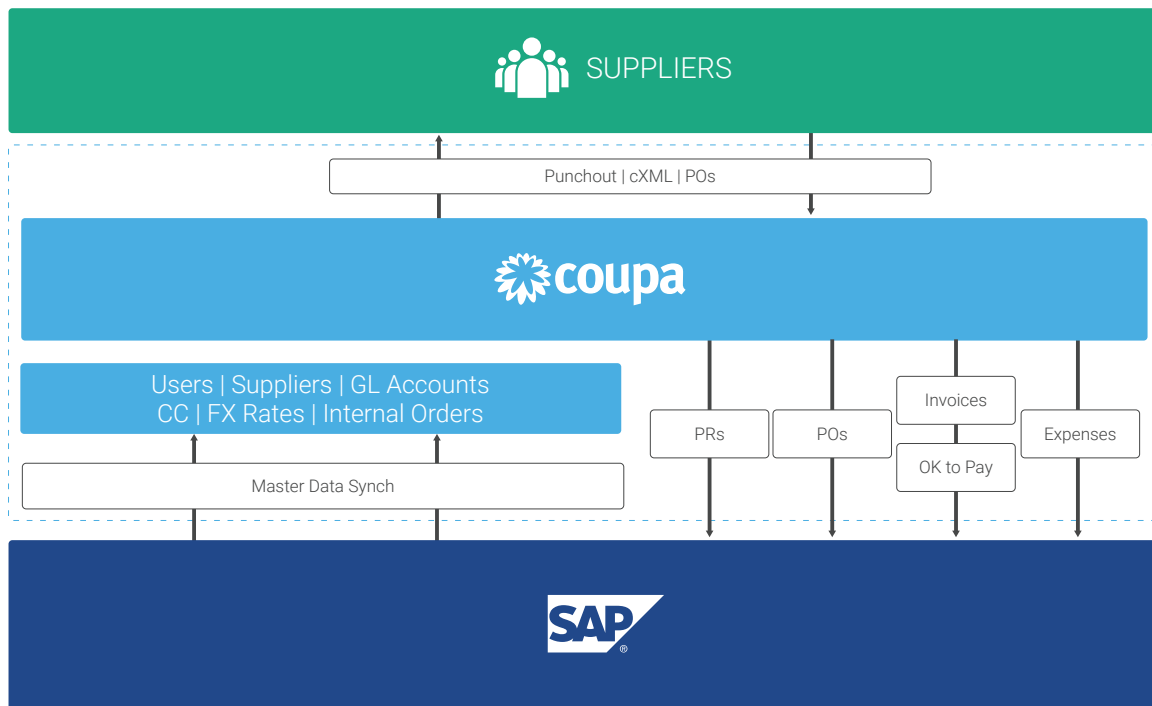
Integration Type	SAP Integration Point	Method	No. of SAP Instances	Integration Time	Resources Utilized
Master Data	Suppliers	API	1	2 Months	2x SAP Developer @ 50%;
Master Data	Lookups (multiple)	FF			
Master Data	Budgets	FF			
Master Data	Exchange Rates	FF			
TX	PO	API			
TX	Invoices	FF			
TX	Invoices	API			
TX	Invoice Payment	API			

*This customer created their own Web Services integration layer to accommodate all traffic to/from their SAP ERP estate (not just Coupa traffic). This work represented the bulk of their integration work. The time and resource noted above only represents the time allocated to integrating Coupa with SAP after this layer was created.

4 Large European Commercial and Retail Bank

- Production Coupa Customer with 1 instance of SAP integrated and live
- Core Integration Model for SAP ERP developed in 9 months
- 11 Integrations Interfaces
- 3.5 IT Resources

10,000 Employees; >€5B Annual Revenue

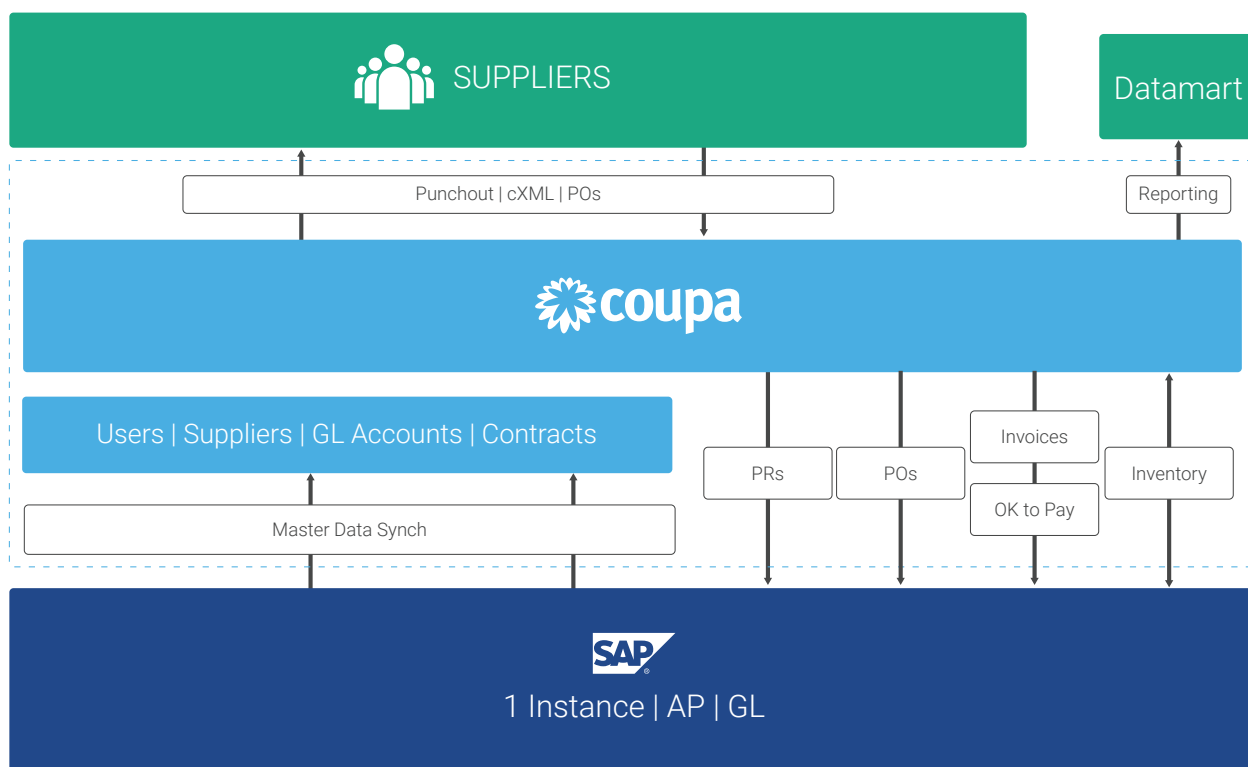


Integration Type	SAP Integration Point	Method	No. of SAP Instances	Integration Time	Resources Utilized
Master Data	Suppliers	FF	1	9 Months	3.5 FTE's (mix of SAP developer, IT, PMO; 1.6 FTE per month for maintenance)
Master Data	Users	FF			
Master Data	Lookups (multiple)	FF			
Master Data	Exchange Rates	FF			
TX	PO	API			
TX	Invoices In	API			
TX	Invoice Out	API			
TX	Invoice Payment	API			
TX	Receipts	API			
TX	Expenses	API			

5 Fortune 500 Canadian Financial Services Company

- Production Coupa Customer with 1 instance of SAP integrated and live
- Core Integration Model for SAP ERP developed in 5 months
- 9 Integrations Interfaces
- 3 IT resources @ 75%

72,000 Employees; \$35B Annual Revenue; Global Company

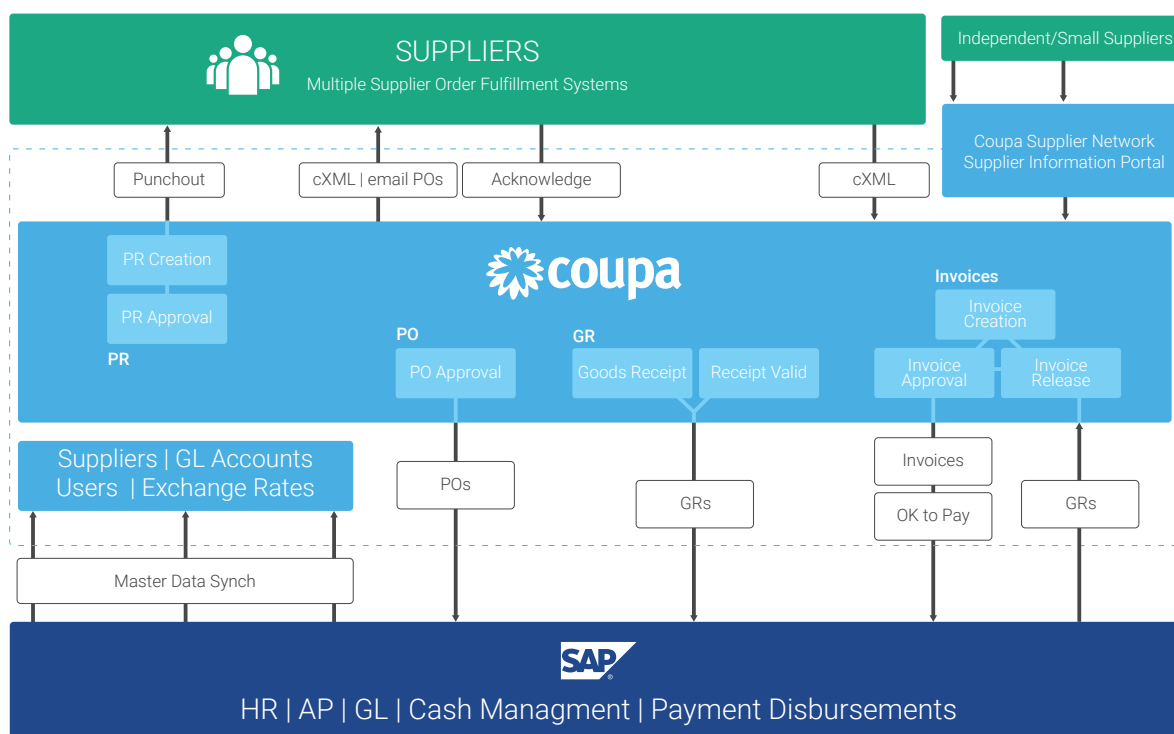


Integration Type	SAP Integration Point	Method	No. of SAP Instances	Integration Time	Resources Utilized
Master Data	Users	FF	1	5 Months	5 (3 x IT, PMO and business); 0.5 FTE per month for Maintenance
Master Data	Suppliers	FF			
Master Data	Lookups	FF			
Master Data	Contracts	FF			
TX	Req	FF			
TX	PO	FF			
TX	Invoices	FF			
TX	Invoice Payment	FF			
TX	Inventory	FF			

6 Global Tobacco Company

- 5 instances of SAP
- Production Coupa Customer with 1 instance of SAP integrated and live
- Core Integration Model for Multi Instance ERP developed in 4 months. Integration technically available for 5 instances of SAP
- 13 Integrations Interfaces
- 2 IT resources @ 100%

82,000 Employees; \$80B Annual Revenue; S&P 100 Company



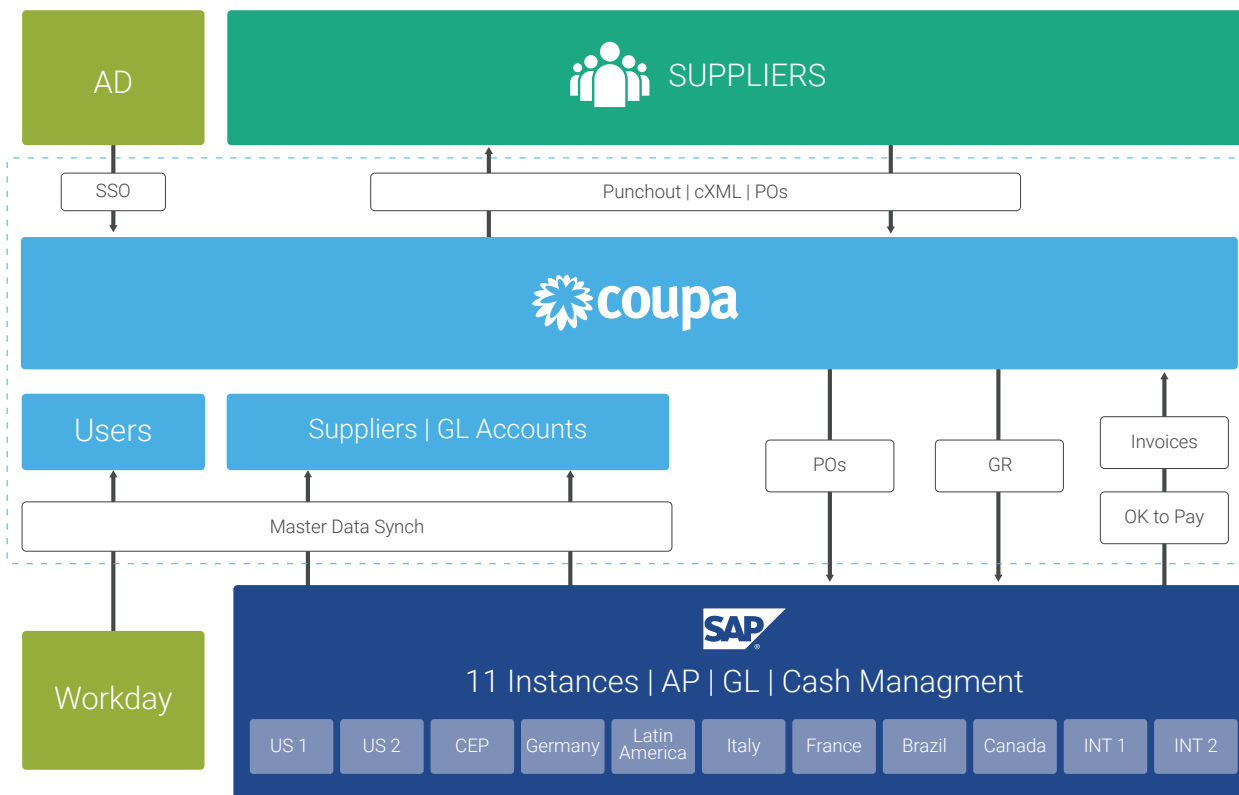
Integration Type	SAP Integration Point	Method	No. of SAP Instances	Integration Time	Resources Utilized
Master Data	Users	FF	5	4 Months	4 (2 x IT, PMO and business); 1.5 FTE per month maintenance
Master Data	Suppliers	API			
Master Data	Remit to	API			
Master Data	Lookups	FF			
Master Data	Exchange Rates	FF			
Master Data	Approval Chain	FF			
Master Data	Approval Groups	FF			
Master Data	Account Validation Rules	FF			
TX	PO	API			
TX	Goods Receipt	API			
TX	Invoices In	FF			
TX	Invoices Out	API			
TX	Invoice Payment	FF			

*The integration is now built and completed for all ERPs and has been rolled out in Europe. Phases 2-5 will replicate across regions globally using the same integration.

7 Fortune 500 Global Pharmaceutical Company

- Production Coupa Customer with 11 instances of SAP integrated and live
- Core Integration Model for SAP ERP developed in 7 months
- 6 Integration Interfaces
- 8 IT resources @ 75%

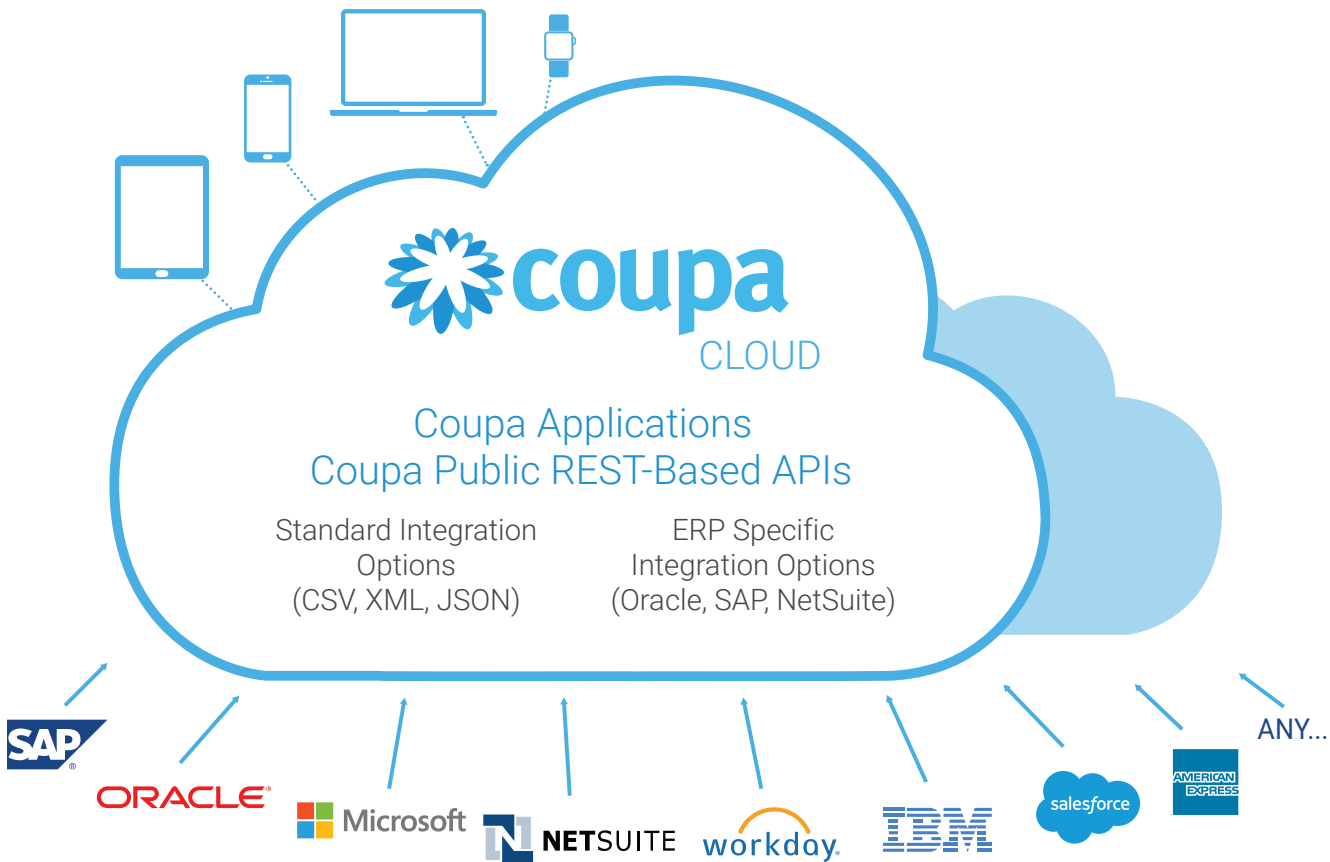
110,000 Employees; \$33B Annual Revenue; CAC 40 Company



Integration Type	SAP Integration Point	Method	No. of SAP Instances	Integration Time	Resources Utilized
Master Data	Suppliers	API	11	7 Months	8 (mix of Middleware, SAP, PMO and architecture)
Master Data	Lookups	FF			
TX	PO	API			
TX	Goods Receipt	API			
TX	Invoices	API			
TX	Invoice Payment	FF			

COUPA'S INTEGRATION PHILOSOPHY

Coupa is an open standards-based platform, utilizing a single, common underlying set of connection technologies across the entire platform. Unlike other source-to-pay solutions currently in the market, Coupa enables a single instance to be connected across multiple ERP solutions, even if they are from multiple vendors. This provides a massive advantage for global organizations with a multitude of ERP solutions spread across geographies and business units. Coupa is your one-stop-shop for all your spend management needs.



ADDITIONAL RESOURCES



Complete set of documented API's, with examples:
<http://integrate.coupa.com>



Sanofi case study:
<https://www.coupa.com/pdf/case-study/Sanofi.pdf>

ABOUT COUPA

Coupa Software (NASDAQ:COUP) is the cloud platform for business spend. We deliver “Value as a Service” by helping our customers maximize their spend under management, achieve significant cost savings, and drive profitability. Coupa provides a unified, cloud-based spend management platform that connects hundreds of organizations representing the Americas, EMEA, and APAC with millions of suppliers globally.

The Coupa platform provides greater visibility into and control over how companies spend money.

Customers – small, medium, and large – have used the Coupa platform to bring billions of dollars in cumulative spend under management. Learn more at www.coupa.com.

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