



CONTINGENT WORKFORCE VMS INTEGRATION BEST PRACTICES

This summary of contingent worker system to system integration best practices is for contingent workforce professionals from all arenas; program managers, buyers, solutions providers, consultants and staffing suppliers. Created by leading industry experts from all of these areas, this summary serves as one of a series of detailed contingent work best practice guides for our industry that drive standard practices and tested strategies.

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Staffing Industry Analysts Advisory Group (SIAAG)

The Staffing Industry Analysts Advisory Group (SIAAG) is a team of representative industry leaders supporting both buyer and supplier communities with a charter to serve as a collaborative forum for sharing and developing best practices, industry standards and priorities related to key strategic initiatives impacting the future of the contingent workforce. SIAAG has a specific focus on:

- Relationships: develop recommended best practice “rules of engagement” between both buyers and suppliers.
- Globalization: develop a best practice framework for global expansion by region and program.
- Performance standards and metrics: develop performance standards that can be adopted by companies to measure program success.
- Innovation: develop and share innovative solutions that can be leveraged across the industry.

SIAAG team members are selected because SIA recognizes their roles as industry experts and leaders in contingent workforce management. Several years ago this small, select group, consisting of both solution providers and buyer organizations, was created to help drive standardization, elevate the importance of CW programs within buying organizations and the importance of the roles of CW program owners and providers who support the often millions to billions of dollars allocated to contingent talent. Most importantly, SIAAG helps to elevate the contingent workforce profession, both from the buyer and provider perspectives. Currently, there are industry experts representing staffing, IC compliance, consultants, MSP and VMS solutions and buyer organizations across multiple industries.

About Staffing Industry Analysts

Staffing Industry Analysts is the global advisor on contingent work. Known for its independent and objective insights, the company’s proprietary research, award-winning content, data, support tools, publications, and executive conferences provide a competitive edge to decision-makers who supply and buy temporary staffing. In addition to temporary staffing, Staffing Industry Analysts also covers related staffing sectors. The company provides accreditation with its Certified Contingent Workforce Professional (CCWP) program. Founded in 1989 and acquired by Crain Communications Inc. in 2008, the company is headquartered in Mountain View, California, with offices in London, England.

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We provide practical, actionable, forward-thinking advice to help our clients develop their business and consistently treat them with the utmost respect, honesty and care. In our role as advisors we maintain strict confidentiality. We deliver research and editorial judgments that are completely objective and independent of financial considerations.

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INTRODUCTION

There comes a point in the maturity of a contingent workforce program that an automated mechanism is needed to achieve scalability and aid in managing and procurement of non-employee services.

Automation of the contingent worker lifecycle and utilization data is commonly handled via a Vendor Management System (VMS). Typical functionality of a VMS allows for requisition distribution, time tracking, and enhanced reporting capabilities. In most organizations, data needs to flow to or from the VMS and information that drives activities or populates choice lists in the VMS need to stay in sync with other systems in the organization. This data sharing is ideally accomplished by integrating / interfacing systems¹. Integrations connect systems so they are able to ‘talk’ to one another for the purpose of passing data and/or updating choice lists and other information. Examples of integrations that pass data may be the import of hours into the VMS from an outside time keeping system or the export of invoice and spend information from the VMS to an accounting system. Integration can also be built to keep choice lists up to date and in sync with other systems (e.g., cost centers from the financial system, approving manager names from the human resource system)

System-to-system integrations are important to the success of a well-run contingent workforce program. Interfaces help keep large amounts of data synchronized between corporate and VMS systems, eliminate errors caused by manual data entry, and allow vendors and service providers (such as MSPs and suppliers) to better concentrate on strategic activities that add value.

While integrations deliver many benefits, they can also be complicated. A successful implementation and ongoing functionality take work – by both the VMS users and VMS 3rd party providers. Integrations require the dedicated time of several human resources and often times a healthy financial commitment. Without appropriate resource allocation, integrations can ultimately delay an entire project’s go live timeline.

This document aims to simplify the integration landscape for the benefit of all of the key constituents in a non-employee workforce program and is primarily focused on integrations between various systems of a typical organization (ERP, HRIS/HCM , AR/AP, etc.) and a standalone 3rd party Vendor Management System (VMS).

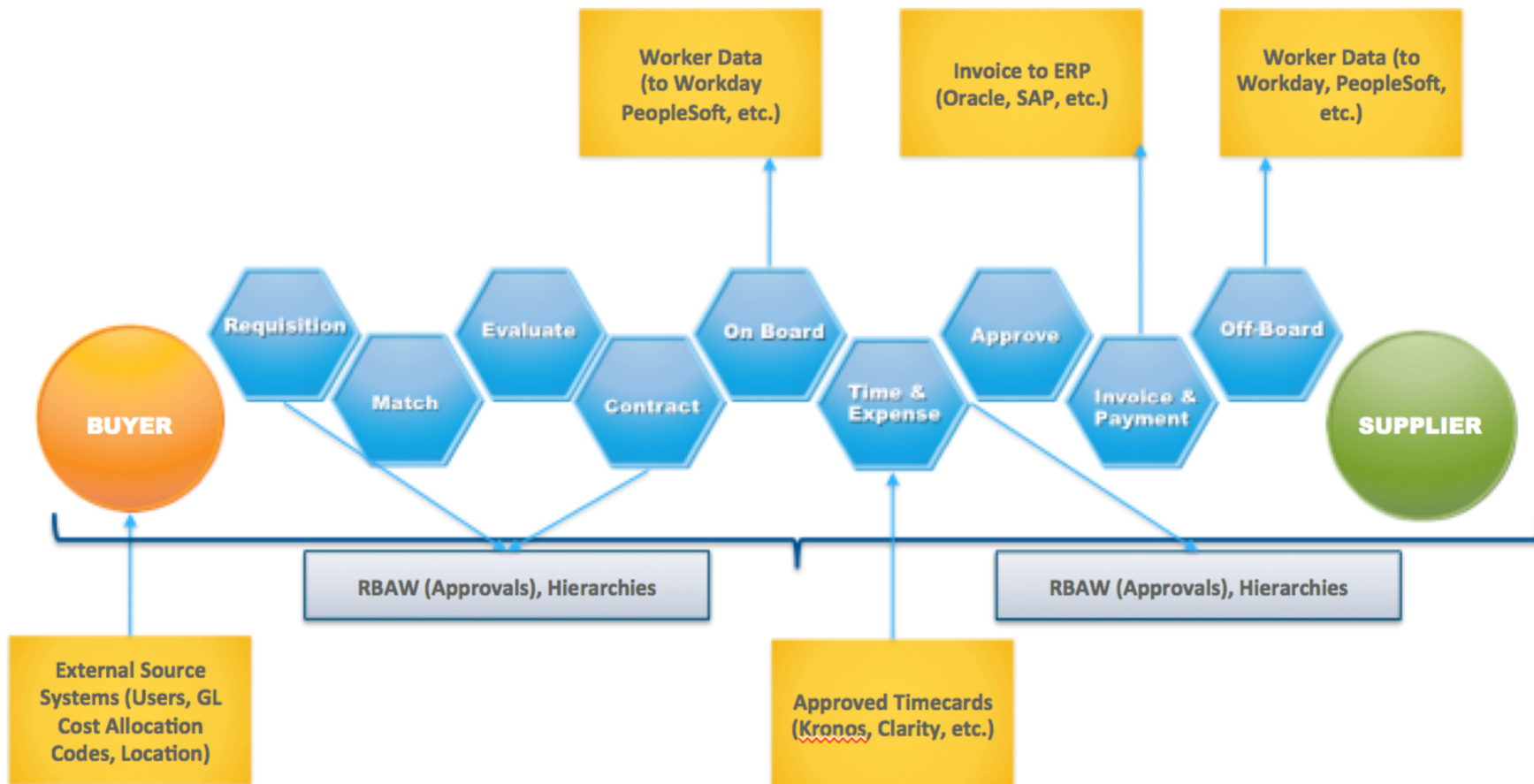
It will provide guidance as to which integrations are (and are not) considered best practices, suggested prioritization of implementing various integrations, and general key elements that companies need to consider as they build out their integration strategy and program.

The information in this document was compiled via a series of discussions and interviews with stakeholders from across the Contingent Workforce ecosystem – VMS and MSP providers, client users, and suppliers.

¹*this document uses the words “integration” and “interface” interchangeably*

TYPICAL INTEGRATIONS

Integrations transfer two types of data: reference (or meta) or transactional. Both types can flow from either the client system to a provider system or vice versa and both can be critical to a client’s business process. The major difference is that reference data integrations provide data that feeds into (and becomes part of) a transaction (such as a requisition or timecard) whereas transactional integrations include just that, transaction related data (such as information about a worker or an invoice). This section will lay out the most common (read best practice integrations) and describe the systems involved, key data elements, and relative prioritization. **Typical Integration Touch Points in the Contingent Labor Process**



INTEGRATION ORDER/PRIORITY

The table below describes the most common integrations and is organized in the order in which the integration comes into play in a typical procure-to-pay process. Note that there are generally not integrations specific to the statement of work (SOW) process but that certain integrations described here – users and cost codes for example – certainly can play a part in it.

Integration Name	Receiving System	Purpose	Recommendation	Level of Effort
Consolidated Electronic Invoice	ERP from VMS	Create AP records in client's ERP	Required for go-live	Medium Impact: 16-64 hours
User and Approval Hierarchy	VMS from HRMS	Create and maintain user accounts, drive transaction approval routing	Recommended for go-live	Low Impact: 8-40 hours
Single Sign On (SSO)	VMS	Grant user access to VMS from client's network	Not mandatory, but recommended for go-live	Low Impact: 8-40 hours
Cost Codes	VMS from ERP	Create and maintain cost accounting values	Recommended for go-live	Low Impact: 8-40 hours
Client Locations	VMS from ERP	Create and maintain client locations	Not mandatory	Low Impact: 8-40 hours
Contractor Data (Provisioning)	HRMS and/or Provisioning System(s) from VMS	Grant and maintain contractor access to buildings and systems	Not mandatory, but recommended	High Impact: 24-96 hours
Timecard Feed	VMS from Timekeeping Systems	Load approved timecards in VMS	Not mandatory, depends on business process	Medium to High Impact: 16-96 hours

RED: Highest Priority

GREEN: Medium Priority

ORANGE: Low Priority

GENERAL INTEGRATION STANDARDS

There are key areas to review and agree upon for each integration.

Security: Whether a secure transport method and encryption is required is based on the information that is being transferred and client security protocols. This may vary by integration type and the data being transferred.

File Transfer: A good standard rule for integration is that the system that created the file will then send the file. Common transfer types are FTP, FPTS, sFTP, HTTP, HTTPS, etc.; the exact method should be determined by the client's IT team.

File Types: File types are determined by the integration type, most batch files are generally a flat file (CSV, pipe-delimited, etc.) Also you will see some VMS's support real-time messaging via APIs to transfer the data. Most VMS can support either full data files (where all data associated to a particular integration (all users, for example) is sent) or delta files (where only new or changed data is sent); the method to use will be determined by the client and provider during the implementation process.

Frequency: Frequency is determine by the type of integration and the types of data that is exchanged. Most batch files are sent on a daily or weekly basis.

Data set for the integration: The exact data needed is determined by the business process, reporting needs, and type of integration. For example, in a location integration, is only the city and state level needed or is there a need to define the exact building location for the workers in case of emergency.

STANDARD INTEGRATIONS: USERS

Type, purpose, key elements, client systems, file transfers and schedule involved in integrations by integration component.

Integration	Purpose	Key Elements	Client Systems	File Transfer	Schedule
USERS	Create, maintain, and terminate user records in the VMS	<ul style="list-style-type: none"> • Grant system roles and responsibilities • Approval related data – drives approval workflows <ul style="list-style-type: none"> ○ Employee ID ○ Reports to User ○ Spend Authority • Email address (used to generate notifications) • Default locations (to persist to requisition/assignment) • Default cost allocation codes (to persist to requisition/assignment) • Can create user hierarchy in the VMS for visibility and approval purposes 	PeopleSoft, Workday, Oracle, SAP – e.g. HRMS, HRIS	Generally supported via a batch file	Daily

STANDARD INTEGRATIONS: SINGLE SIGN ON

Type, purpose, key elements, client systems, file transfers and schedule involved in integrations by integration component.

Integration	Purpose	Key Elements	Client Systems	File Transfer	Schedule
Single Sign On	Enable Security Provisions and User Adoption by allowing client users to access the VMS via the clients network without having a separate login to the VMS	<ul style="list-style-type: none"> • Allows users to access the VMS through the client's corporate network • Allows clients to enforce security rules (password complexity and change frequency) • Facilitates user adoption – no additional password required • Typically enabled through SAML standards <ul style="list-style-type: none"> ○ SAML version 1.1 (Browser Post Profile) and the equivalent ○ SAML 2.0 interaction (Web Browser SSO Profile) with both Service Provider initiated and Identity Provider initiated POST bindings (preferred) 	Lightweight Directory Access Protocol, or LDAP services Active Directory	Integration with API	Real time

STANDARD INTEGRATIONS: COST ALLOCATION CODES

Type, purpose, key elements, client systems, file transfers and schedule involved in integrations by integration component.

Integration	Purpose	Key Elements	Client Systems	File Transfer	Schedule
Cost Allocation Codes Cost centers, profit centers, departments, business units, G/L codes, WBS, project codes, etc.	Create, maintain, and terminate cost allocation codes in the VMS	<ul style="list-style-type: none"> • Ensures only valid codes are used for transaction creation in the VMS <ul style="list-style-type: none"> ○ Codes are referenced at time of requisition, assignment, SOW, expenditure, and invoice creation • Can support code interdependencies to ensure valid string creation • Can create cost allocation code hierarchy for visibility and approval purposes • Can drive budgetary related process • Used for default cost allocation codes on user records if needed 	ERP Systems including SAP, Oracle, PeopleSoft, Lawson, Microsoft Dynamics	Generally supported via a batch file	Weekly

STANDARD INTEGRATIONS: CLIENT LOCATIONS

Type, purpose, key elements, client systems, file transfers and schedule involved in integrations by integration component.

Integration	Purpose	Key Elements	Client Systems	File Transfer	Schedule
Client Locations	Create, maintain, and terminate client location information in VMS	<ul style="list-style-type: none"> • Ensures only valid locations are used for object creation • Codes are referenced at time of requisition, assignment and SOW creation <ul style="list-style-type: none"> ○ Locations include attributes which tie into taxation (i.e. zip code for US locations for US Sales Tax on contingent labor) • Used for default locations on user records if needed 	ERP Systems including SAP, Oracle, PeopleSoft, Lawson, Microsoft Dynamics	Generally supported via a batch file	Weekly

STANDARD INTEGRATIONS: WORKER INFORMATION AND TIMECARDS

Type, purpose, key elements, client systems, file transfers and schedule involved in integrations by integration component.

Integration	Purpose	Key Elements	Client Systems	File Transfer	Schedule
Worker Information	Create, maintain, and terminate worker records in the client system HRMS, Badging or provisioning systems	<ul style="list-style-type: none"> Typically used to manage worker access to client systems/buildings, to provision equipment, and support headcount tracking Record types may include creation, update, rehire and termination of a worker in VMS Client system may send the VMS a worker ID of some sort – can be used to track workers (and prevent duplicates) across assignments 	Workday, Remedy, ServiceNow, PeopleSoft, SAP	Batch file or messaging	Daily or Real time
Timecards	Creates approved timecards in the VMS from data sent from client utilized time systems	<ul style="list-style-type: none"> Used to load approved timecards into the VMS Data sent from a timekeeping system <ul style="list-style-type: none"> Time clocks in a light industrial environment Project tracking systems in an IT environment Timecard upload supports time in/time out and standard time format (RT, OT, DT, Custom Identifier) 	Kronos, Clarity, Microsoft Project	Generally supported via a batch file	Weekly

STANDARD INTEGRATIONS: INVOICE

Type, purpose, key elements, client systems, file transfers and schedule involved in integrations by integration component.

Integration	Purpose	Key Elements	Client Systems	File Transfer	Schedule
Invoice	Create, AP records in client ERP systems to facilitate supplier payments	<ul style="list-style-type: none"> • Level of detail varies by client and ERP requirements • Ideal is automatic load with no human intervention or approvals required • Limitations by geography – invoicing rules • May be backed up with a human readable PDF invoice • No purchase orders – VMS replicates PO functionality 	ERP Systems including SAP, Oracle, PeopleSoft, Lawson, Microsoft Dynamics	Generally supported via a batch file; sometimes via a format/method such as EDI (electronic data interchange)	Weekly, biweekly or monthly

ALTERNATE INTEGRATION: PURCHASE ORDER

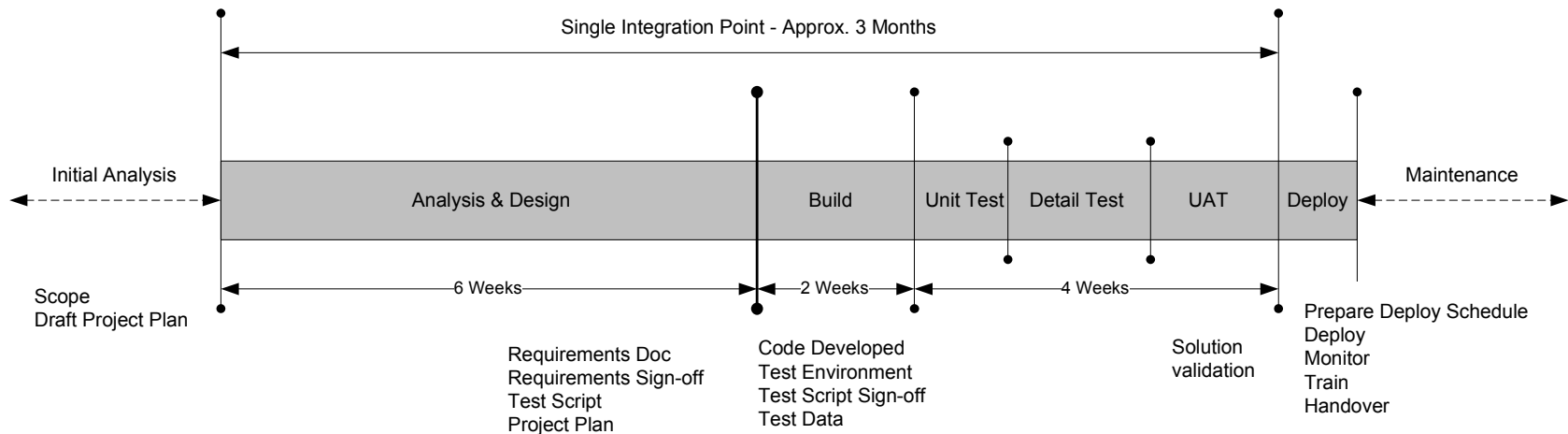
Type, purpose, key elements, client systems, file transfers and schedule involved in integrations by integration component.

Integration	Purpose	Key Elements	Client Systems	File Transfer	Schedule
Purchase Order	Create POs, Goods Receipts, Invoices	<ul style="list-style-type: none"> • Create Purchase Orders, Obtain Approvals for financial obligation, track funds depletions and control spending • Purchase Order, Goods Receipt, Invoice • Either request generated in Purchasing software then flows to VMS for sourcing, or at the time of Work Order creation, approvals route in Purchasing software, then updates Work Order with PO Number. 	Oracle, SAP, Ariba, Purchasing software etc.	Integration with API	Real Time
		<p>Things to consider:</p> <ul style="list-style-type: none"> • The VMS tools already creates a “Three-way match” and has established controls so the client does not have to utilize POs. • PO Integrations may restrict the ability to Extend or modify a Work Order in the VMS and may cause the users to create multiple POs for one assignment. • “Three-way match” <ul style="list-style-type: none"> ○ Worker Order represents the PO. VMS validates funds are remaining at Timesheet and Expense approval, Approved amounts are not exceeded, and Approvals obtains for expenditure. Work Order controls both cost and time elements of the assignment. ○ Timesheet, Expenses and miscellaneous billings represent the goods receipts. ○ Invoices created in the VMS represent the Invoices in the Purchasing system. • PO options to consider: <ul style="list-style-type: none"> ○ PO per Work Order with PO Line Item details by spend expenditure – disadvantages as listed above ○ PO per Work Order with total committed spend only – middle road ○ Blanket PO for the total Program or No PO needed – feeds can be done for data for reporting 			

IMPLEMENTATION CRITICAL PATH

As you start the Design and Discovery phase of your Implementation, it is critical to start the sessions that will require integrations as soon as possible. Integrations are normally the longest duration items during an implementation and, as a result, can impact your timelines. Some integrations require programming by either the VMS or Client’s development teams. Client and VMS development teams may have set release schedules and will have to fit your program into their roadmaps and release dates. It is important that the integration plan be well thought out and that it includes sufficient time to define requirements, develop code, and test the integrations before a program goes live. Additionally, integration and business requirements are often interrelated so it is important that be taken into account when designing processes.

Categorize your integrations into phases as shown in the Integration Order/Priority section listed above. Start off your program with uploads and downloads utilizing the VMS’ standard file formats such as Invoice Download, Worker Download, Timesheet Upload or other integrations that are done via batch file. This will enable you to Go Live first and then automate when schedules permit. This way you can implement faster and start receiving the benefits of the VMS system. We see that in the majority of clients they modify their configuration and integrations after they go-live. We also see integration changes and additions when programs are expanded to additional business lines or countries, in such cases rework is often required.



WHEN INTEGRATIONS ARE NOT AN OPTION

As we've said, integrations are important to ensure up to date information and data accuracy vs. manually keying information. Even though that's true, there are times when clients – for whatever reason – simply can't or won't build a certain integration. In those cases there are other options as outlined below. Even in such situations there are things that providers can do to help the process – for example it is easier for an AP Clerk to manually enter an invoice if he/she has one standard invoice document to do it from rather than X different invoices from each supplier.

- Client System to VMS Integrations
 - Manual data entry by program offices, MSPs, and/or end users
 - Example: manually created user account records
 - Bulk uploads; most VMSs support the ability to do a mass data upload via a defined format
 - Example: bulk cost center uploads
- VMS to Client System Integrations
 - Manual data entry by client side personnel
 - Example: manual invoice entry by an AP Clerk