

Workforce Management Solutions A Buyers Guide

Infogencer White Paper - September 2014

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Introduction

The widespread adoption of dedicated Workforce Management (WFM) solutions continues to gain momentum as organizations increasingly recognize that the level of control and visibility needed in managing their workforce resource is rapidly outstripping the capabilities provided by existing HR applications and processes. Unlike many other areas of their operations that have for a long time seen the adoption of sophisticated solutions to optimize value (such as Enterprise Resource Planning, Supply Chain Management, Customer Relationship Management, Business Intelligence, Business Process Management and so forth) - the management of the underlying human resource has remained a largely administrative, and often manual, undertaking. In our view this is a situation that has to change if organizations are to maximize the value from their workforce resources, while at the same time minimizing its cost and risk. To achieve this, organizations need to have a much greater level of visibility and control of their workforce resources and workforce processes. Without the underlying support that a capable Workforce Management Solution can provide, this can be difficult, if not impossible to achieve. As a result, the demand for Workforce Management Solutions is growing rapidly as organizations increasingly turn their attention to the ability of their workforce management processes to support some of their most pressing operational and strategic challenges.

If organizations are to successfully address the workforce management challenges, we believe they need to have in place a capable technology framework to support those efforts. This will provide them with a platform on which they can build and implement more efficient and flexible workforce management processes, and which in turn will provide the organization with a much greater level of control and visibility of their workforce resource and its activities. If organizations continue to rely on predominantly manual processes or by using basic solutions such as spreadsheets or the limited functionality provided by the most common HR solutions - which are mostly geared towards administrative tasks - then they will simply not be able to realize these potential benefits. Not only do these act as a barrier to achieving greater levels of workforce efficiency and flexibility, we believe that they can actually work against the organization by actively devaluing their workforce assets, increasing direct and indirect workforce costs and significantly increasing their exposure to workforce risks. In our view, a capable Workforce Management Solution is the most appropriate technology framework to consider, as these solutions do provide organizations with a mature set of capabilities which are specifically designed to address these workforce management challenges.

The desire to improve efficiency and flexibility of operational processes and have greater levels of control and visibility of valuable assets or resources (such as customers, suppliers, raw materials or cash) is, of course, nothing new for organizations. Most have invested heavily over many years in sophisticated IT solutions such as Customer Relationship Management, Enterprise Resource Planning, Business Process Management, Business Intelligence and so forth. Indeed, in many respects it would now seem outlandish for an organization to manage its complex customer relationships or supply chains using paper-based forms or spreadsheets, for example. Yet investment in technology to support the optimization of workforce assets and processes has remained comparatively low.

The evidence for this can be seen by looking at the investments made, or planned, by organizations in other business technology solutions which have now gained widespread adoption in the pursuit of optimizing the effectiveness and value in other areas of their operations. Taking an average of enterprise software spending estimates for 2013 (from a variety of sources) they are:

Enterprise Resource Planning - \$50bn; Customer Relationship Management - \$16bn; Business Intelligence - \$14bn; Collaboration - \$7bn; Business Process Management - \$6bn. In total, Gartner predicts 2013 enterprise software spending to be in the region of \$280bn. Workforce Management Solutions however are estimated at around just \$4bn. We appreciate that using financial estimates can often be misleading as there are many factors that can skew the comparison. So as an additional comparison, we can use sentiment as another measure. Looking at the total global Google search volumes (based on several permutations of search terms and phraseology) for enterprise software solutions during April 2013, we find the following results: Enterprise Resource Planning - 7.9m; Customer Relationship Management - 4.9m; Business Intelligence - 1.1m; Collaboration - 4.3m; Business Process Management - 2.2m. Workforce Management Solutions come in at just 74,000 searches. While we do not propose this as any form of rigorous and robust analysis, it does serve to illustrate that both investment and sentiment in Workforce Management Solutions is far less than for its more famous enterprise software cousins.

This is, and indeed should be, surprising given the significance of the cost, value and risk which the workforce represents for organizations. There are of course many different reasons for why this may be the case, and the idiosyncrasies of the IT industry is well beyond the scope of this paper. Save to say that a combination of industry hype and the way we respond to it (as suggested by the field of behavioral economics such as availability bias leading to confirmation bias resulting in system justification bias, for example) all play a major role in shaping the IT industry and organizations' investment priorities. It also goes some way to explaining why the priorities outlined in CIO survey results often bear little reflection on the priorities of their CEO colleagues, but we digress.

What certainly is not the reason however is a lack of justification for the potential benefits that a Workforce Management Solution can provide for organizations and the value that can be derived from their deployment. We believe strongly that implementing a capable Workforce Management Solution can provide organizations with a platform on which they can more effectively address all of the workforce challenges which we have outlined in this paper. The results of which can lead to: a significant reduction in overall workforce costs and administrative overheads; greater operational flexibility and strategic agility; improved product and service quality; improvements in customer satisfaction and retention; reduced financial and operational risk; and improvements in workforce morale which in turn improves productivity and helps to retain and attract a valuable and motivated workforce. Some of these intangible benefits are difficult to measure, or attribute directly to more efficient workforce management processes. However some are very tangible and can be directly measured such as through cost savings or reductions in administrative head count for example. In our experience, it is not uncommon to see savings in the region of 10% of total workforce costs which can be achieved through greater resource utilization, reduction in payroll costs, the savings in administrative overhead for example. This figure alone for many organizations will justify the potential investments in this area.

For some organizations however, addressing all of these challenges in one fell swoop may be too ambitious and the organization's ability to do so will depend largely on their appetite for change, the existing operating environment and the culture which already exists. It may be that some organizations are further down this road than others are, and who may have already addressed some of these challenges. For those organizations, it is perfectly feasible to tackle either the most pressing challenges first or take their existing efforts a stage further by addressing just specific challenges such as automating 'time-to-pay' processes, implementing more effective scheduling processes or developing more robust absence management processes for example. Whichever approach is taken we believe that significant benefits can still be realized.

As a result, we believe that organizations should prioritize an organization-wide assessment of how the workforce management challenges which we have outlined in this paper are impacting their operational and strategic objectives. Only then will organizations be in a position to understand the scope for improvements in their workforce management practices. It will then become clear whether the organization needs to consider this as a potential investment priority.

For organization which identify the need for, and are considering investing in, a Workforce Management Solution, then identifying a short list of potential solutions can also be a challenge in its own right. Throughout this paper we make a consistent point of referring to 'capable' Workforce Management Solutions. This is an important and deliberate prefix. While the market for Workforce Management Solution may appear large at first pass, the reality is far different.

The Workforce Management Solutions Market

During our research into this market, we initially identified well over one hundred and fifty vendors who claim to provide 'Workforce Management Solutions'. A proportion of these are exclusively targeted at contact centre operations, where the application of workforce optimization approaches is well understood and where the use of technology solutions to optimize agent utilization is commonplace. While these are correctly identified as Workforce Management Solutions, they are not suitable for use in non contact centre environments. Another large proportion provides solutions which provide only very specific capabilities such as scheduling, time and attendance monitoring or absence tracking for example. In our view these are not Workforce Management Solutions per se and the use of the term by those vendors only serves to confuse the market and is often an attempt by those vendors to cash in on the rising popularity of the term. We are not suggesting that all of these solutions themselves are not valuable or capable offerings - indeed there may be many cases where organizations are looking for a single solution to address a very specific challenge and these highly focused solutions may provide a viable option. Lastly, there are also a large number of vendors who provide only very basic solutions which offer nothing more than a collection of online forms with basic workflows, simple time sheets with little more functionality than a basic spreadsheet can provide, or provide basic time capture and recording solutions while making the claim of providing Workforce Management Solutions. Many of these which we have looked at are simply sub-standard offerings and fall well below our definition of a capable Workforce Management Solution.

After taking these factors into consideration it leaves relatively few vendors who, in our opinion, can provide organizations with a capable and viable Workforce Management Solution. Our criteria for which is based on the following eight key considerations;

1. Have a thorough understanding of the operational and strategic challenges facing organizations today with a specific emphasis on the impact of an organization's workforce on those challenges.
2. Have a deep and demonstrable level of knowledge and expertise in workforce optimization practices.

3. Provide the depth and breadth of capabilities (outlined in the next section) which organizations require to successfully address the workforce management challenges outlined in this paper.
4. Provide a high quality implementation of those capabilities such as ease of operation and an intuitive user interface, for example.
5. Provide a solution architecture which supports high levels of availability, scalability, security and openness with other IT solutions and services.
6. Provide a high level of flexibility to adapt the solutions capabilities to meet the specific needs of each individual client environment.
7. Provide organizations with the level of support required to enable them to achieve the optimal value from the solution throughout all phases of the relationship such as pre-implementation planning and needs analysis, pilot projects, full implementation and deployment support, and ongoing training, support and development.
8. Be a financially healthy and stable organization with a strong senior leadership team.

While this represents Infogencer's criteria for acknowledging a vendor as a provider of a capable Workforce Management Solution, there will of course be additional criteria which are unique to each organization and their environment. This is the principle reason why Infogencer does not produce generic rankings of technology solutions. Without knowing the specific needs of individual organizations, it would be unhelpful if not impossible, to attempt to provide them in any meaningful way.

Therefore in addition to Infogencer's criteria, organizations may also need to consider other factors that are specific to them. These may include for example:

1. The vendors experience of providing solutions within the organization's industry. Some vendors may provide solutions across many different industries and some may focus exclusively on a specific industry. Whichever approach the vendor takes, organizations must ensure that the candidate vendor has a provable experience within their industry. This may be to ensure support for specific challenges such as industry regulations or operating environment for example.
2. The vendor's location, or reach, is also an important consideration. Some vendors may provide global reach for their solutions, while others may focus on specific geographic regions. This is an important consideration from two main perspectives: First, the solution must be able to support the challenges organization's face within their region of operation, such as the ability to support local employee related legislation or work cultures, for example. Second, is the ability for the vendor to provide a high level support when and where it is needed by the organization.
3. The suitability of the vendor's solution given size and complexity of the organization. Organizations which have larger or more complex workforce operations - such as those with multi-site or multi-national components, or those which operate in highly regulated industries - may require a deeper level of support in areas such as implementation support or configuration and bespoke development. Smaller organizations with more limited needs and smaller budgets may require vendors which are able to provide a more affordable 'out-of-the-box' or cloud-based solution.

Essential Capabilities of a Workforce Management Solution

As highlighted above, one of the major considerations for a capable Workforce Management Solution is, of course, the capabilities they provide. By its very definition, a Workforce Management Solution must provide a suite of capabilities which enable organizations to manage their workforce and its activities. Anything less would not justify that classification. Therefore in our view, a capable Workforce Management Solution must provide organizations with at least the following capabilities:

Time and Attendance

While the term Time and Attendance is correct in terms of industry parlance, in our view it does not do justice to the capabilities which these solutions provide. In part this is a historical legacy from the roots of the Workforce Management sector, which until fairly recently just provided the simple tools which enabled organizations to record basic employee attendance times - the more modern equivalent of the punch-in / punch-out time clocks. Surprisingly, this is a perception which many organizations still have of Time and Attendance. Yet today, Time and Attendance capabilities can provide an organization with a sophisticated solution which enables them to manage their entire 'time-to-pay' processes - from data capture through to the automatic calculation of final payroll and accruals - and forms the backbone of a capable Workforce Management Solution.

At the heart of a Time and Attendance capability is the ability to capture and record highly granular information relating to the workforce and its activities in real-time. Using a variety of data capture and integration methods (discussed separately below), this information not only includes high level information such as start, end and break times but also down to the level of what task is being worked on and for how long. As information is captured in real-time, the organization is able to enforce the validation of data to ensure the accuracy of information before it enters the system. Restrictions can also be enforced to prevent certain activities such as an employee 'clocking on' outside of the time of their allocation shift or work schedule for example.

Once the organization has confidence in the accuracy and validity of time and work information, an integrated rules engine enables organizations to codify their compliance obligations and other internal rules and policies. This enables organizations to enforce those rules and policies automatically and consistently across the entire workforce such as automatically performing calculations (such as for final pay and paid-time-off accruals and entitlement for example). Seamless integration with the scheduling capabilities (discussed separately below) also enables the organization to enforce break and rest times, or prevent workers from being scheduled for work when they have exceeded a maximum number of concurrent work shifts, for example. Exceptions and approvals can also be triggered by the rules engine to ensure that any abnormality can be automatically routed to the appropriate resource for resolution. This may be as a result of a worker failing to start work at a specified time or where overtime approval is required for example.

The ability for organizations to integrate these capabilities with other operational systems is also fundamental in order to leverage the most value from them. Integration with payroll solutions is perhaps the most common integration scenario and enables the organization to complete the full 'time-to-pay' process. Yet other scenarios can also provide organizations with significant advantages. These may include integration with finance, job costing and budgeting solutions to

provide a link to real-time labor costs for example, to project management or enterprise resource planning solutions to provide a link between work activity and performance against operational requirements for example. Integration in these latter examples also enables the organization to augment time related information with task information providing the workforce with specific information relating to the tasks they are needed to perform. The integration needs will be different for every organization and the ability to provide a high degree of flexibility in this area is a prerequisite of a capable Workforce Management Solution. We will discuss these integration capabilities separately below.

The level of detail which is provided by these Time and Attendance capabilities provide organizations with a real-time view of exactly how their workforce resources are being deployed at any one time. This level of visibility will provide many significant advantages such as the ability to optimize resource utilization levels or track real-time labor costs against budgets and forecasts for example. It also provides organizations with a valuable central repository of historical information which can be used to identify trends and patterns in order to identify areas to reduce workforce costs or improve productivity for example, or to provide an audit trail at the individual worker level to support compliance issues or payroll anomalies for example.

Data Capture and Interface Tools

Data capture and interface tools are an essential component which support a Workforce Management Solution. They enable the workforce to enter information and interact with basic workforce management processes quickly and efficiently, enable the organization to consistently apply their business, compliance and data validation rules at the point of data entry and communicate information to the workforce. By providing dedicated tools to serve this purpose, organizations can place this functionality close to where the worker is likely to be (such as entry and exits to work areas) and provide the level of usability to capture the required information without any detrimental impact on the workers time or productivity. There is typically no single answer as to the best data capture and interface tool to use as each organization will have an environment that is unique to them (such as in manufacturing or healthcare for instance), will have a different set of worker types (blue collar vs. white collar or fixed location vs. mobile for instance) and will have workers with differing levels of IT skills. While some organizations may be able to employ one single type of data capture tool across their entire organization, others may require a mix of several different types. As a result, most capable Workforce Management Solutions provide support for a wide range of different options which organizations can select to best suit their environment and their needs. These data capture and interface tools can be deployed in many different forms - from software or online based tools to dedicated electronic wall mounted devices - but which ever form they take, they largely serve the same purpose which is to enable information to be captured and entered, the interaction with workforce related processes and the communication of information from the Workforce Management Solution.

The most common options for data capture tools are as follows;

Software / Online Based Tools - These are typically geared towards the white collar or knowledge worker environment and enable data entry and capture using dedicated software installed on the user's computer, or through a dedicated private online web pages which are accessed through a web browser. Some vendors also provide small 'widgets' that can be embedded into other enterprise or online applications such as CRM or ERP applications for example.

Integration Based Tools – Another software-based approach is the ability to integrate data capture functionality in other systems used by the organization. An example might be integration with an ePos system within a retail environment, enabling retail workers to enter information using the pre-existing ePos terminals used in store, for example.

Telephone Based Tools - While the use of these are now becoming less common given the rise of smart-phones (discussed separately) they are however still supported by many vendors. These tools are based on an Interactive Voice Response System where the worker can dial a dedicated number and follow an automated system for entering information. The main benefits of these systems is that all is required is access to a telephone to interact with the Time and Attendance system, which may be particularly useful for remote workers with no internet connectivity.

Dedicated Electronic Device Based Tools - These are perhaps one of the most common types of tool used at present. These are small electronic devices which are typically wall-mounted at key locations such as at entry and exit points to work areas or near work stations for example. They allow workers to enter information using small keyboard or (more recently) touch screen interface. These devices can also provide a number of mechanisms which enable workers to identify themselves - such as magnetic stripe cards, electronic tags or barcode badges for example. However, becoming increasingly popular is the use of biometric readers that can use information such as fingerprint scanners or face cameras to identify the worker. Not only do these provide greater levels of convenience for workers, they also provide organizations with additional layer of security to ensure that workers entering information into the system are who they claim to be which can significantly reduce incidents of time or payroll fraud. Integrating these devices with access control systems can also serve the dual purpose of providing secure access to work areas as part of the time entry process. They are also typically self sealed devices with no moving parts and with water or chemical resistant screens and keyboards which means they are more suitable for harsher working environments.

Smart Devices and Tablet Based Tools - As their name implies, these types of tools are based around the recent emergence of tablet PC's and are based on a similar form factor. They typically have a large color touch screen interface and can run content-rich applications as well as email and other enterprise applications. As well as providing basic data capture functionality similar to the tools outlined above, the advantage of smart devices and tablet based devices is that they provide a much richer user interface. This enables them to be used to provide much greater levels of functionality to cover a wide variety of different needs. From a worker perspective, this may be access to HR self service applications, access their email, view company documents and manuals, or even watch training videos, for example. From a supervisor or manager perspective, they can also be used to access approval request processes, access employee records or view and generate reports. As these devices are mostly based on commonly available technologies - such as the Android operating system - they provide organizations with a highly flexible platform through which they can provide a wide range of functionality and services to the workforce. Internal battery power means they can be un-mounted and carried around the workplace when necessary with connectivity provided by Wi-Fi and Cellular data access. We believe that devices of this type will increasingly displace the use of the more traditional tools currently used given the scope of flexibility which they can provide organizations with.

Mobile Support - The use of mobile devices, and in particular smart phones, has now become ubiquitous and it is likely that the vast majority of the workforce will carry one. It clearly makes sense that extending access to workforce management processes to these devices can have a

significant benefit to both the organization and the workforce. This can be achieved by using dedicated 'Apps' which can be provided by several Workforce Management Solution Providers, or secure web pages that are optimized for access by these types of mobile devices. From a worker perspective, it enables them to have access to those workforce management processes whenever and wherever they need it. This may be to view work or shift times, enter requests for absence or access other HR self service options for example. From an organization perspective, it enables them to capture time and work related information or communicate schedule and work tasks regardless of the worker location. Even if the worker is in an area which does not provide a suitable level of internet connectivity, the information entered can be cached locally on the device and synchronized with the server when internet connectivity is restored. Additional information can also be used from the device such as geolocation information which can provide organizations with evidence that the worker is where they were supposed to be when the information was entered or for security and safety purposes for example. They also provide an excellent platform through which supervisors and line managers can quickly process approval requests or be alerted to exceptions or occurrences which need addressing with urgency such as a failure of a worker to turn up for their shift on time, or the occurrence of unplanned absence for example. The use of mobile technologies are of course invaluable to organizations which have a mobile workforce (such as in field service industries for example), however they should not be seen as exclusive to them. We believe that extended access to workforce management processes and HR self service through mobile devices can have significant benefits to organizations in every sector, even those without a particularly mobile workforce.

Using one or a combination of these data capture and interface tools can provide organizations with significant benefits in addition to those provided by other Workforce Management Solution capabilities. They enable information to be captured and communicated in real-time, greatly improving the organization's visibility of its workforce resources and providing them with the opportunity to respond to exceptions without delay and therefore improving their overall responsiveness. They also ensure that information entering the system has been checked and validated at the point of entry, greatly reducing the chance of errors which can have a subsequent impact on the organization further down the line. And lastly, they also enable the organization to automate all of these data capture and entry tasks and removes the need for manual resources to be used for processing and re-keying manual time, work or job sheets for example.

Scheduling

The scheduling capabilities provided by a Workforce Management Solution are essential in helping organizations deal with the complex challenges involved by ensuring that they have the right people in the right place at the right time performing the right tasks and for the right cost while at the same reducing the significant administrative overhead that scheduling can often consume. This is achieved by providing organizations with three key capabilities: schedule optimization, schedule communication and schedule agility.

As we have highlighted earlier in this paper, organizations face several challenges when attempting to create the most optimal schedules to meet their operational objectives. They have to match variability in demand for their products and services with the right skills to meet that demand. This can involve the consideration of a large number of possible permutations such as;

- Resource availability and adherence to compliance policies such as the Working Time Directive or fatigue prevention policies for example.

- Limitations on resource usage such as in support of flexible working arrangements or individual worker preferences for example.
- Worker attributes such as specific role, skills, experience or authorization to use certain equipment for example.
- Location considerations of off-site workers or field workers for example.
- Cost variances of each resource that may be eligible to fill a schedule requirement.

These soon create a level of complexity which often prevents the most optimal schedules from being created using manual scheduling processes and can consume a large amount of administrative resource in an attempt to do so. The capabilities provided by a Workforce Management Solution however use a number of algorithms to work through a large number of these permutations in a short space of time to create the most optimal schedule. These schedule outcomes can then be presented to supervisors or line managers for final approval before the schedules are implemented. This allows for review and for adjustments to be made if necessary. In addition to the core time related information, additional information can also be included within these schedule creation processes such as task, job or project information and specific instructions, for example.

Once schedules are accepted and implemented, a Workforce Management Solution also provides the mechanisms to efficiently communicate those schedules automatically to the workforce using a variety of methods. These may include publishing schedules online such as through employee portals for example, or communicated directly to the workforce such as via email, through mobile apps, terminals (discussed above) or even using SMS messaging for example. As well as streamlining the schedule communication process, it can also greatly improve schedule adherence by ensuring that the workforce has clear visibility and active notification of their forthcoming schedule commitments.

One of the constants in the scheduling process is the fact that they will often continually require adjustments to be made in response to changes in demand or availability of resource as a result of unplanned absence for example. When these instances occur, organizations must have the ability to quickly respond to prevent any significant impact on their operational performance. Workforce Management Solutions can provide a high degree of automation to respond to these occurrences such as through the communication of available shifts (to all workers who qualify to fill that shift) via email or SMS for example. In this instance, workers can also respond via email or SMS to accept or decline the request with the schedule then being automatically updated. This level of automation also provides the ability to offer self service to workers who need to request a shift swap for example, reducing the need for supervisors or line managers to be distracted by having to deal with these requests manually.

These advanced scheduling capabilities provided by several Workforce Management Solutions can provide organizations with significant benefits which can help to address many of the workforce challenges we have outlined in this paper such as improved workforce utilization, reduced workforce costs (including a reduction in overtime costs), reduced administrative costs through the automation of many aspects of the scheduling process, greater flexibility to respond to changes in demand and resource variability and therefore a reduction in operational risk to name just a few.

Absence Management

The absence management capabilities provided by Workforce Management Solutions provide organizations with a single organization-wide platform on which they can manage all of their planned and unplanned absence processes and compliance policies.

Central to these capabilities is the ability for organizations to encode all of their complex compliance rules (such as legislative, industry or union rules) and absence policies (such as eligibility, entitlement, accruals and pay rules) and manage them from a single point. This ensures that these rules and policies can be consistently applied and enforced in all absence instances which can significantly reduce the risks of compliance breaches as well as creating a more fair and transparent response to absence for the workforce. When an instance of absence occurs, the individual worker (or if required their supervisor, line manager or HR team) enters a notification of absence or request for planned absence directly into the Absence Management Solution. Depending on the nature of the absence, they will be required to answer all necessary questions and provide any supporting documentation as required. For planned absence, an outcome may be automatically determined by applying the organization's predetermined rules and policies. For unplanned absence, and especially absences that are longer or more complex in nature, the Absence Management Solution provides a platform on which the processes of managing that absence - from initial notification to return to work - is managed and orchestrated. This ensures that all required steps and procedures - by both the worker and the organization - are followed by a predetermined process. While in many of these instances the outcome may not be automatically determined for various reasons, those making the outcome decision have access to all of the relevant worker information, compliance rules and the organization absence policies to help guide their decision to one which is consistent and compliant to those rules and policies. To ensure that these processes are followed in a timely manner, notifications, action and follow-up requests can be automatically sent at predetermined intervals during the process to the individual worker or the team member responsible for the absence. Likewise, automatic notification can be sent to operations management who need to plan for the impact of that absence on their operational objectives such as making scheduling adjustments for example. This combination of rules engine and workflow management (depending on the terminology used) capabilities ensure that all absence occurrences are dealt with in a uniform and timely way, which are fully compliant to rules and policies and can significantly reduce the burden on administrative resources.

By having a centralized platform which records accurate absence information in real-time, organizations will also have a much greater level of insight into how absence is impacting on their operational performance. It also enables them to use this repository of detailed information to identify absence patterns and trends which will enable them to identify and respond to the causes of absence and also to better plan for the impact of absence on their operational objectives. This analysis can be performed at an individual worker level, to identify individual absence problems, or across the workforce as a whole. This repository also provides organizations with a detailed audit trail of each and every absence occurrence which can be valuable when this information is required to defend potential claims of non-compliance.

Reporting and Analytics

By implementing a capable Workforce Management Solution, organizations will capture in real-time a much greater level of detailed and accurate information of its workforce and its activities. As we have highlighted earlier in this paper, this can provide organizations with a valuable repository of information which can be used to create a much greater level of insight into how the workforce and its activities are impacting on the organization's performance, as well as identify trends and

patterns which can be used to further increase the efficiency and utilization of its workforce assets. While this Workforce Management information is invaluable in its own right, combining it with information from other information sources - such as from Enterprise Resource Planning, Customer Relationship Management, Project Management, Finance and planning applications for example - it can deliver even greater levels of insight across the whole organization. While many organizations have invested in Business Intelligence solutions to increase the visibility of their operational and strategic activities (with varying degrees of success), without the information captured by a Workforce Management Solution, it is impossible for them to include the intelligence from their workforce assets, essentially creating a blind spot. The information captured by a capable Workforce Management Solution can cure that problem and help to leverage greater value from those Business Intelligence investments.

Given the critical nature which this level of insight represents, it is essential for a Workforce Management Solution to provide the capabilities to support the efficient access to, and communication of, this information and analysis to those who need it, when they need it. Therefore in our view it is essential that a capable Workforce Management Solution is able to provide (or fully support) the following Reporting and Analytics capabilities:

Ad-hoc Queries - This provides users with the ability to quickly perform individual queries in order to address specific information needs, or to answer a very specific question. Typically this is achieved using a query form which enables the user to select the information required and apply any given criteria of filter to that query as well as apply a number of calculations on the results such as totals and averages for instance. In some solutions, these basic queries can also be saved by the user so that they can be accessed again without having to redefine the query each time.

Reporting - Where a more formal or detailed presentation of data is required, or where the information is required at regular intervals, reporting functionality enables users, or power users (such as data analysts, HR or finance experts for example), to design individual reports. To design these reports, users can select all the information required in the report and apply filters and criteria to that information. The user then has a detailed level of control as to how that resulting information is presented such as through tabulated tables or graphs and charts or a combination of them. Report designer functionality also enables the user to apply a high level of design to templates such as company logos and styles. Once created, these Reports can be saved in a Report library which can then be accessed each time it is required by any user (subject to security permissions). Each time a report is generated, fresh data is taken from the Workforce Management Solution. Most solutions also enable reports to be generated automatically at predetermined intervals and automatically distributed to users by email or through company portals for example. As well as static formats supported such as PDF or HTML for example, reports can also be generated in a spreadsheet format to enable users to perform additional analysis using spreadsheet applications. Report data can also be exported to raw data formats such as text, comma separated value, or XML formats for example, which enables the data generated by those reports to be integrated into other applications such as finance, budgeting or planning applications for example. All reports can then be saved in a report library which provides a centralized repository of reports which can then be accessed by those who need the information without requiring any additional work to be performed. Most capable Workforce Management Solutions also provide a library of pre-designed reports which cover many of the typical reporting needs that they encounter. These reports can be used straight 'out-of-the-box' or used as a template which can be fine tuned to meet the organizations specific requirements.

Analytics - Analytics capabilities take the flexibility and power of workforce analytics to the next level. As opposed to ad-hoc query and reporting functionality which is designed primarily for use by non-power users, analytics capabilities are typically geared toward the power user which have a greater knowledge of, and training in, data analytics and methods. This functionality is typically provided in partnership with a third-party Business Intelligence solution provider but which is pre-configured for use specifically for use with the Workforce Management Solution. It provides power users with the level of capabilities needed to explore their data more thoroughly to identify trends and patterns or perform what-if and scenario analysis for example. This may include connecting to information sources from other external data sources (such as ERP or finance systems for example), availability of more sophisticated analysis tools such as advanced visualization, pivot tables, multi-dimensional cubes and so forth .

Advanced Analytics - Business Intelligence and Data Analytics technologies continue to evolve ever more powerful methods for organizations to leverage insight and value from the data assets. While these more advanced approaches are not usually provided as part of a Workforce Management Solution, in our view their support for organizations that are investigating the use of these advanced technologies is an important capability. If the data captured and stored within a Workforce Management Solution is in a proprietary or non-open format, then organizations will struggle to use that data within these advanced analytics solutions. It is beyond the scope of this paper to go into these techniques in any depth save to say that areas such as Data Visualization, Big Data and Predictive Analytics for example, are relatively new within this area and present organizations with a potential great stride forward in how their data assets can be leveraged. This is covered in more detail in our Workforce Analytics research.

With the exception of ad-hoc query functionality, reporting and analytics capabilities are a very specialized domain and as a result most Workforce Management Solutions recognize this by providing these capabilities in partnership with other solution vendors who have specific expertise and technology in this area. This is a sensible approach and will provide users of their solutions with a much greater level of capability in this area than could otherwise be provided if they developed their own reporting and analytic solutions.

On a final note, given the potentially sensitive nature of the information within a Workforce Management Solution - such as personal information and pay information for example - it is essential that these capabilities are provided with a high level support for security. For example, it is essential that a report created by one person with higher privileges cannot be accessed by those with lower privileges. It is essential therefore that the reporting and analytics capabilities provides support a robust and comprehensive role based security architecture.

Integration

As we have already highlighted in this paper, an organization's workforce is an integral and critical component of an organization's operations. It is therefore vital that its activities and processes are also seamlessly integrated into the organization's operational infrastructure. For organizations which do not have in place a platform to provide them with the full visibility and control of their workforce processes, this level of integration will be difficult to achieve with any great success. As a result, workforce management processes often operate in isolation of the wider operational environment, or if integration does happen in certain situations, it relies heavily on the manual transfer, or re-keying, of information from one system to another. This leaves organizations with the inevitable issue of inefficiency such as the overhead cost of performing and managing these

integration processes manually, the inevitable inaccuracy which results and a time delay in information transfer. It also means that these organizations are unable to leverage the value that could otherwise be realized by having their workforce management processes seamlessly integrated with other areas of their operations. Therefore the implementation of a capable Workforce Management Solution should not be seen as an isolated solution, but one which is an integrated component of an organization's IT application infrastructure. We therefore believe that support for integration is an essential capability of a Workforce Management Solution.

The challenge of integration has been a significant one for IT departments for many years, mainly because every single organization has its own unique IT application infrastructure. Managing and orchestrating data and process integration across this application infrastructure - while at the same time preserving integrity and security for example - is no easy task. As a result the industry has developed many tools and techniques (such as the Enterprise Service Bus) to help organizations address these challenges. Likewise it is critical that a Workforce Management Solution provides a range of integration options to ensure that integration is possible with each organization's unique requirements. The following of which are the most common methods:

Pre-configured 'Connectors' - Most capable Workforce Management Solutions provide a number of pre-configured 'connectors' which enable integration directly with more common applications and services which are typically found in deployments of their Workforce Management Solutions. Such as Enterprise Resource Planning, Finance, Payroll and HR solutions for example. This approach ensures a high level of support for integration directly between these solutions.

Open Standards Support - For integration with less common solutions or applications and solutions which have been developed in-house for example, support for a range of open standards is often provided. These include standards such as the Application Programming Interface (API), Open Database Connectivity (ODBC) and Simple Object Access Protocol (SOAP) for example.

Batch / File Transfer - For integration to applications and services which are unable to support or utilize the above methods, many Workforce Management Solutions are able to support the import and export of information through the automatic batch processing of data files in formats such as eXtensible Markup Language (XML) or Comma Separated Values (CSV) for example.

Bespoke Integration Development - As part of their services portfolio (discussed below) most capable Workforce Management Solution providers are also able to provide their clients with bespoke integration development support, where they can develop integration solutions tailored to meet their specific requirements.

Services and Support

Implementing a Workforce Management Solution will inevitably involve a significant amount of change relating to their workforce management practices. Given the critical nature of the workforce and its activities on an organization's operational and strategic performance, it is critical that this change process is managed in such a way as to minimize any potential disruption to the organizations. Equally important is minimizing any negative impact on the workforce itself. As the workforce is made up of human resource, it presents a particularly sensitive area which organizations need to navigate. As well as changes to workforce management processes, the implementation of new workforce management practices may involve changes which directly

impact individual workers - such as changes to work schedules, shift patterns or the reduction in overtime for example. If these changes are not managed well, the impact can be disastrous on workforce morale. This is a particular concern for many of the organizations which we work with. It should however not present an impenetrable barrier which prevents the adoption of a Workforce Management Solution. Many of these challenges can be overcome through a well planned change management programme, and one which involves the workforce through all stages. If organization's can achieve a high level of 'buy-in' from the workforce through education, support, and incentives such as through intangible benefits such as greater flexibility or perhaps even financially, organizations will be in a much stronger position to transition to these changes.

Many of the suppliers of capable Workforce Management Solutions which we have engaged with have a wealth of knowledge and experience in these areas. They have often worked with hundreds of different organizations to address these challenges and as a result have gained a deep level of understanding of the intricate and sensitive issues involved. Many have also codified this experience in the form of best practices, which can be used by organizations as a blue print for their own planning and change management processes. This wealth of knowledge and experience is something which we encourage organizations to leverage to the maximum extent possible. The level of support required by each and every organization will be different. Those with a larger workforce and / or those with more complex workforce operations - such as those with multi-national or multi-site components - may need a greater level of support. Smaller organizations, or those with simpler workforce operations may need less. This can only be determined by each individual organization and as such they need to assess the Services and Support capabilities provided by the potential supplier just as much as any functional capability which the solution provides. Some or all of these services may be provided directly by the solution provider themselves, or some may use dedicated implementation partners who may have more specific expertise in a particular geographical region or industry, for example.

The Services and Support which can be provided by most capable Workforce Management Solution suppliers, or their partners, typically cover the following main areas;

Pre-Implementation Support - The planning and preparation required before a Workforce Management Solution is successfully deployed within organizations should form a significant part of the overall project. First are the technical aspects of preparing for a Workforce Management Solution deployment such as configuration, customization and design of the solution to fit the organization's specific requirements and establishing integration interfaces with other enterprise applications and services for example. There will also be a large amount of analysis and modeling of the organization's workforce management processes which need to be designed to leverage the maximum value from the solutions deployment. Once these technical and processes aspects are defined, a process of education and training will follow to ensure that the workforce is able to transition to the new solution with minimal impact once it is deployed. Finally there will be a testing phase with perhaps a pilot project rolled out to a smaller demographic within the organization, prior to an organization wide deployment to highlight any potential problem areas.

Implementation Support - Once the planning phase is complete and the organization's transitions to a 'live' roll-out, there will inevitably be an interim period where a greater level of support will be required both in terms of ironing out any technical or processes problems which arise and also to support users until they become more familiar with the new solution and the new or changed processes involved.

Post Implementation Support - This will cover ongoing support throughout the life of the solution and will include issue and problem resolution and deployment of upgrades to the solution for example.

In most solution deployments, each of these phases of support will be required to some degree by organizations and many capable Workforce Management Solution providers will have a formal structure of support services designed to adequately support the organization through each of these phases.

The capabilities which we have outlined above are in our view the essential capabilities which a Workforce Management Solution needs to provide. These present our view on the minimum capabilities required to justify a capable Workforce Management Solution and the capabilities which will be required by the vast majority of organizations selecting a Workforce Management Solution. Many solution providers however may provide additional capabilities over and above those outlined above. The fact that these capabilities are not listed above should not in any way devalue them and these additional capabilities may indeed be the deciding factor for organizations. The reason we have not included them above is that they are more likely to be applicable to a smaller number of organizations such as for multi-national organizations, or organizations operating within a specific industry and which requires more specialized capabilities. These requirements are less generic and more unique to the organization's individual requirements. Each Infogencer Solution Audit will provide organizations with an analysis of these additional capabilities where applicable.

Suppliers of capable Workforce Management Solutions provide organizations with an integrated suite of capabilities to address all of the workforce management challenges which we have highlighted in this paper. This integrated solution approach is an important distinction. There are of course a plethora of suppliers who provide solutions which provide very narrow capabilities such as just Time and Attendance, Scheduling or Absence Management capabilities for example. While some of these may badge themselves as suppliers of Workforce Management Solutions, they are not and this can be misleading for organizations. Whilst it may be possible for organization to acquire each specific capability from individual vendors, in our view this would not be a wise choice unless the organization has a very specific need which forces them down this path. Each of the essential capabilities which we have highlighted above require a high degree of interoperability and integration between each of these capabilities. Achieving that seamless integration by taking a piecemeal approach would be difficult and costly to achieve, if it is possible at all. In addition, the disadvantages of working with a number of vendor organizations will also become problematic. This does not imply however that organizations can not consider a phased implementation approach with an integrated solution provider and many of the Workforce Solution vendors which we have engaged with are happy to support this phased approach. For example, this may be the deployment of just the scheduling capabilities, before moving on to time and attendance and then absence management for instance. Therefore, for organizations which have a longer term plan to address all of these workforce management challenges, they should still seriously consider the long term benefits of selecting a single integrated solution vendor.

About Infogencer

Infogencer specializes in the independent analysis and comparison of information technology solutions and services from a business perspective. The core focus of our analysis is on the capabilities which they provide and how organizations can leverage those capabilities to improve their operational and strategic performance.

We work closely with senior business and business-oriented IT management by providing them with the trusted source of clear and concise information which they need to make more effective technology selection and investment decisions, and which are predicated on solid business benefits.

Our research services are delivered via articles, papers and continuously updated major reports which are accessible through an annual subscription service. We also provide individual clients with tailored advisory services to support them with their internal projects or bespoke analysis requirements.

For more information you can contact us on:

www.infogencer.com | info@infogencer.com | +44(0) 203 239 7050



Infogencer Limited
3 Melton Park
Redcliff Road
Melton
East Yorkshire
HU14 3RS
UK

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w: www.infogencer.com
e: info@infogencer.com
t: @infogencer
p: +44(0) 203 239 7050