

People Relationship Management: Completing the BPM Value Proposition

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ABSTRACT

Introduction

Today's business environment is challenging and complex. Layoffs are rampant, and employees who remain are being asked to do more with less. The best way to remain competitive in this environment is to streamline your business processes, linking the touch points through automated workflow. As a result, software products with a workflow component have become ubiquitous in the enterprise, yet their true value has not been realized. The reason is that workflow software depends on worker relationships in order to automate the business processes effectively. Yet there is no source of worker relationship information available that is robust enough for all applications, guaranteed to be accurate, and a complete model of the organization to enable an automated process to scale across the enterprise.

The BPM Value Proposition

Business Process Management (BPM) allows effective automation of business processes, by getting the *right* information to the *right* person at the *right* time. Service-oriented architectures address the content issue by integrating disparate repositories as appropriate for the end-to-end business process. Automated workflow is the transport mechanism allowing the information to be available when needed. People Relationship Management (PRM) completes the picture, by ensuring that the correct person receives the information, in order to make an informed decision. The BPM value proposition involves the per-transaction cost savings gained by reducing the "white space" between touch points in a business process, and the consistency provided by imposing order on organically-occurring processes. BPM falls short if the recipient of a workflow item is the wrong person, or if the automated business process is limited in scope.

Changing nature of work and the worker

The nature of work and the worker are changing. Just as the industrial age put an end to physical labor, the automation age is putting an end to the administrative tasks of the knowledge worker. Companies are relying more heavily on the knowledge worker with very specialized skills to use their knowledge and skills to create value for the company. It is essential that automated workflow be employed to manage the tasks effectively and allow the worker to concentrate on the types of tasks where human decision making is required. Formalizing all of the relationships in an organization is essential to effectively automate critical business processes. Increasingly, companies are realizing that the key to optimizing output is acknowledging and leveraging important human interactions in the workplace.

THE PROBLEM

Single hierarchy

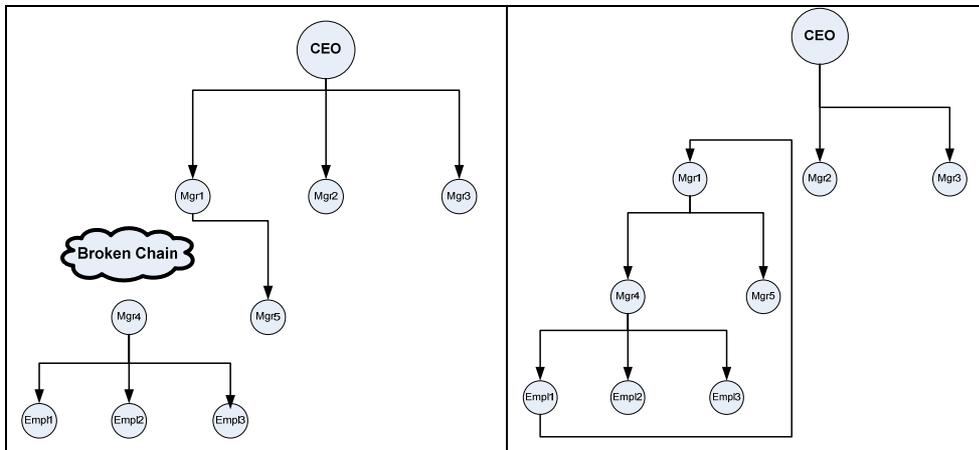
Enterprise wide software such as Enterprise Resource Planning (ERP), Human Capital Management (HCM), Org Charting, etc. usually stores only a single hierarchy to represent the organization structure. This is inadequate since each software application or BPM installation may require different types of relationships in order to route a workflow item to the correct person.

Only hierarchies

Many relationships in a company are not hierarchical at all, but rather matrix or network structures. This management organization originated in the early 1970's and has rapidly gained popularity¹. It allows for more agile resource allocation, since a resource can be used by several business areas to maximize their effectiveness. The strict hierarchical structure requires redundancy of resources, which deliver suboptimal effectiveness. It is essential that matrix management structures be reflected in organization models.

Relationships not validated

Some hierarchical structures are deemed “mission critical.” However, sometimes a worker has no supervisor assigned to her in the organization system of record, because it is often not a required field. Sometimes that supervisor's reporting structure ends in a circular reference: she reports to someone who, in turn reports to her. Sometimes the reporting chain does not go all the way to the top of the company. A valid structure of this type is called a “fully articulated tree structure.” If an automated business process relies on a supervisor who is defined as someone who can approve a transaction, and that supervisor cannot be found, the business process is broken. Additionally, there are circumstances where if a critical structure is not fully articulated, the company runs a regulatory compliance risk.



Broken chain (L) & circular reference

Person to person only

For large companies, indicating all reporting relationships on a person-to-person basis is tedious, and not really reflective of the true organizing principles of the company. Organizing principles are often rule based, which can allow them to be self-maintaining. For example, suppose you are the supervisor of all accountants

in the Prague office, and an accountant transfers to the Zurich office. The reporting relationships must be hand-maintained, whereas applying the rule based on the employee indicative data would make the relationship self-maintaining.

No central repository

Since the system of record for organization structure information is inadequate to serve the needs of all software applications with workflow, what often happens is that each application stores the relevant structure information in its own “silo.” This is an undesirable practice because there is often no procedure in place to keep the information up to date—and it’s changing all the time! Thus, reporting structure information becomes invalid and automated business processes fail to work correctly.

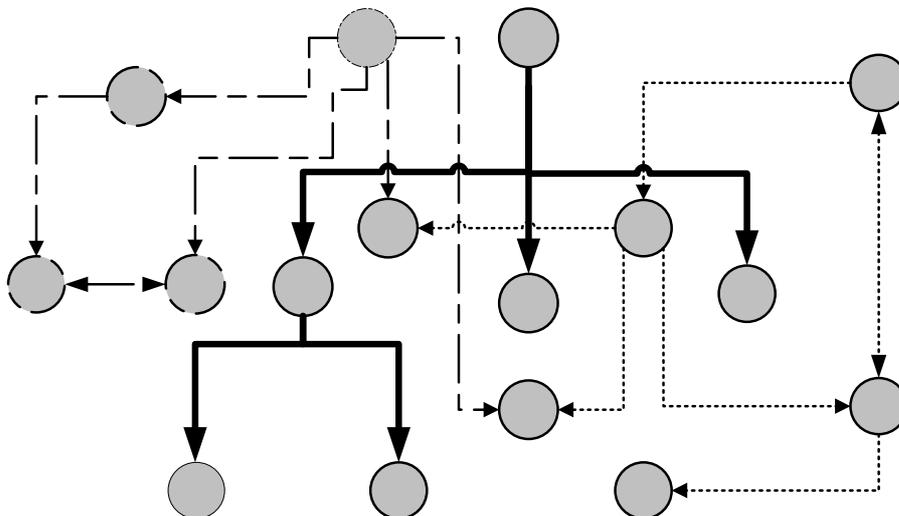
Scalability

Suppose a BPM solution is in place, and the implementer has successfully modeled the business process and correctly identified the actors. This will work well if it is confined to the limited scope that was analyzed. However, if the company would like to standardize the process enterprise-wide, the process will not scale because the actors identified were individuals and not a full contextual organization model.

THE PEOPLE RELATIONSHIP MANAGEMENT SOLUTION

Contexts

A People Relationship Management solution should be able to maintain relationships in multiple *contexts*. This effectively creates a multi-dimensional organizational model.



A multi-dimensional organizational model (line types indicate contexts)

Multiple structure types

A People Relationship Management solution should be able to represent relationships in hierarchical, matrix and peer-to-peer structures.

Validates relationships

A People Relationship Management solution should validate that critical contexts are compliant as a fully articulated tree structure. It should be sensitive to daily HR transactions (new hires, terminations, transfers, etc.) that would break the

fully articulated tree structure, a process should move all nodes up in order to remain compliant, and notify a responsible party to make the proper adjustments in a timely manner. This process has been referred to as “self-healing.”

Organization Modeling

A People Relationship Management solution should be able to apply rule-based criteria for assembling workers into groups that have similar reporting relationships. This way, movement within the organization would be self-maintaining by consistently applying the rules. In order to accomplish this, it is helpful to leverage the meta-data layer of the Human Capital Management system in order to dynamically construct and enforce the rules.

To achieve the above, there are two other concepts in addition to the one of multiple contexts, stated above.

Spheres

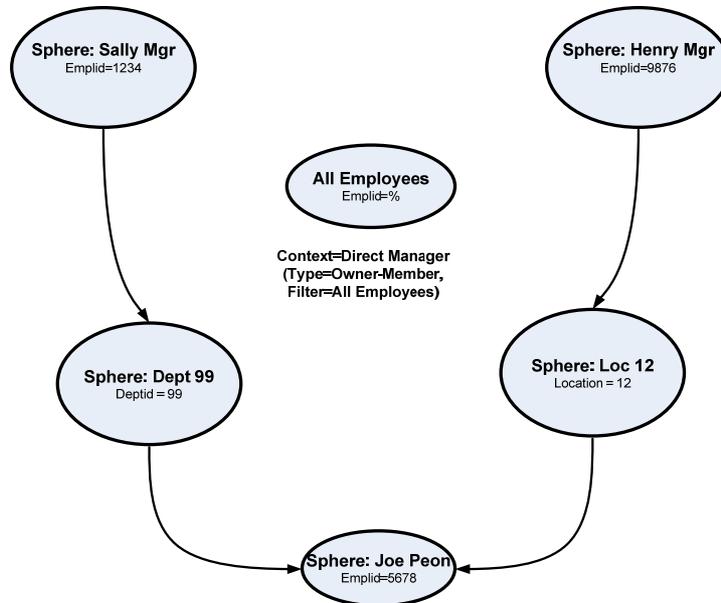
A sphere is a collection of assets, most commonly: workers. The most elemental is the employee. Each employee is, by default, its own sphere. However, spheres can be ad hoc groups of individual employees (such as a project team), or it could have an organizing principle enforced by rules (i.e., all salesmen in the Düsseldorf office). These rules leverage the meta-data layer of the data model in order to have maximum flexibility. For instance, if I have a rule that says that all managers within a particular location belong to the same sphere, or all non-exempt employees in the same department, I can enforce that by dynamically creating the criteria using the data items and operators needed. If a sphere is rule based, it is self-maintaining. Spheres can be nested to create complex macro-structures, as a company’s maturity with the process grows. Spheres don’t necessarily need to refer to human assets. The elemental sphere can be, let’s say, a server in an IT support desk function. You could assign a sphere of servers to the IT technician assigned to support them, so that outage requests are directly routed to the correct person for the server that needs attention.

Business Rules

Business rules can be assigned to spheres, for instance, to require that the rules in a collective bargaining agreement apply to all members of the sphere containing those union members. A business rule could be applied to a context also, for instance: require that a fully-articulated tree structure be enforced for a particular context.

Contexts/Spheres/Business Rules

This application is brought to life by combining Contexts, Spheres, and Business Rules. The basic structure is two spheres connected in a context, with the business rules of each enforced. However, spheres can filter contexts as well. For instance, the context of “Union Reporting Structure” is only relevant to people in the Union sphere, so this context will only be available to those within that sphere. Business rules from contexts or spheres are inherited when spheres and contexts are combined. When they conflict, the user will be given the choice as to how to resolve. Through the interaction of contexts, spheres, and business rules, very flexible models of the organization are achievable in very dynamic ways.



Simple Sphere-Context example

BENEFITS OF SOLUTION

Workflow software

Any software that has a workflow component will benefit from a People Relationship Management solution. This includes, but is not limited to, BPM systems. Workflow-based software applications have become ubiquitous in the workplace. Some examples are:

- Human Resource application, such as:
 - **Workforce management**—a timesheet is often routed to a direct manager for approval. However, oftentimes a manager will designate a subordinate to approve timesheets for her. A People Relationship Management solution is essential to categorize the timesheet approver, and formalize that role in the business process.
 - **Talent management**—360° reviews often require the input of one’s peers. In addition, if the employee is working on a project in a matrix environment, feedback from the matrix project manager is essential for an accurate review. These relationships are not captured in a traditional organization structure.
 - **Employee/Manager Self-Service**—the recipient of a self-service workflow item is usually the employee’s direct report...but not always. Often, the second-level approver is a senior manager. That’s when the business process gets tricky. Its not good practice to bother senior managers with approval routings that are not relevant to them. Routing the transaction to the correct manager is essential to its quick approval, and staying in the good graces of senior managers who don’t want to be bothered with approvals that are not their responsibility.
- **Help desk applications**—most help desk applications have an escalation structure for dealing with issues that arise in the organization. Often, the trouble ticket comes to a “dispatcher,” who then routes it to the appropri-

ate resource (based on colloquial knowledge). If the responsibility and escalation structure was encoded in the PRM solution, the ticket could be automatically routed to the right person, saving a step in the process and better serving the company. After the issue is resolved, the users could be automatically notified by the application. Notice here that a robust PRM solution can store relationships between people *as well as* other entities, such as servers or networks.

- **Procurement**—a budget approver is often required to ok purchases. Purchases outside of guidelines often require a second level of approval. The financial approval structure of an organization is often different than the supervisor reporting structure. A PRM solution is needed to capture and maintain these relationships.
- **Financials**—the financial reporting structure of an organization is often different than the HR structure. This often leads to manual “work-arounds” to get the financial reporting correct.

Regulatory compliance

Compliance Reporting—Sarbanes-Oxley requires managers to sign-off on the financial statements of all managers who report to them. If the organization structure stored is incorrect, incomplete or not within the “financial responsibility” structure that is required, the company is out of compliance.

Identity/Entitlement Management—large companies often audit employees’ entitlements by management level. Unless that information is maintained accurately, and validated, the company may be out of compliance.

Audit trail—all transactions in a workflow system can record who approved each transaction and when it was approved; and report on that information.

Reorganizations

Companies periodically reorganize to meet the ever-changing challenges of the business environment, or to respond to an acquisition or divestiture. Reorganizations can be disruptive, so it is essential that they are effective in addressing the needs that prompted them. To do so quickly and effectively, the company must (a) understand its current multidimensional structure, (b) have a method of restructuring that doesn’t require moving people on an individual basis, and (c) have the ability to do “what-if” modeling and analysis.

Scaling Business Processes

If the organization structure is effectively modeled within a context, automated business processes can scale to the enterprise level. Thus, if a company has improved a business process by automating it, it can apply the new model as a “best practice” company-wide.

SYNCHRONIZING THE INFORMATION

The biggest challenge to getting the most out of your People Relationship Management solution is keeping the information up to date. A company is like a living organism, with cells constantly dying, reproducing and mutating. As soon as the multi-dimensional organization structure is complete, one can be sure that it’s no longer valid. This challenge is mitigated using the techniques articulated below.

Aligning with Human Capital Management System

The Human Capital Management system is the system of record for employee indicative information. An HR generalist is typically the person who processes transactions involving the movement of a person through the company. When a

person is hired, promoted, or transferred, the HR generalist can adjust reporting relationships, in multiple contexts, while modifying other job-related information. In addition, a robust People Relationship Management solution will contain rules that apply to the reporting contexts in which the person participates. For instance, let's refer back to the example cited earlier. A manager is designated as the supervisor of all accountants in the Prague office. Processing the transfer of an accountant from the Prague office to the Zurich office will generate a warning, indicating to the HR generalist that the transfer action will have an impact on the employee's reporting relationships. Thus, rule-based enforcement is in effect, but the HR generalist is prompted to ensure that the automated enforcement is valid, and can manually adjust if necessary.

Self-Service Model

Who is better equipped to maintain a worker's reporting relationships than the people closest to them? Each employee should have visibility to all of the reporting contexts in which they participate. If they notice a discrepancy, they can initiate a change. The change will have to be approved by both the "losing" and "gaining" managers. Once approved by both, the change becomes part of the employee's record.

If a manager wants to "pull" an employee from a different manager, or "push" one to another manager, she can initiate such a transaction, which would have to be approved by the other manager to take effect.

Mass Change

During reorganizations, it is essential that executives and HR have a mass change capability to support quick and effective organizational restructurings. This involves the grouping of workers based on rules. Utilizing a "what if" capability, HR can model the change before applying it. The rules can evolve as companies become more mature with the process, and begin to understand the true organizing principles of the company.

PUBLISHING THE INFORMATION

The People Relationship Management solution is intended to be the system of record and a central repository for all relationship information for the enterprise. It is intended to feed all application software that requires relationship information for workflow recipients, or any other purpose.

Web service

A web service will be the primary method for disseminating relationship information to the company. Using a web service, the company can easily enforce its security policy with regard to who can see what information. Also, whichever application is accessing the information can be assured that it is current. In a real-time situation, if an application wants to access the recipient of a workflow item, it needs to specify the following information:

- **Starting point**—the employee who is the subject of the transaction
- **Context**—the type of relationship relevant to the application (i.e., direct manager, HR responsible, financial approver, etc.)
- **Direction**—whether you are ascending a hierarchy (supervisor), descending a hierarchy (subordinate), or accessing a peer
- **Scope**—this is an optional parameter. Scope refers to how many levels you want to retrieve. The application may require the service return a full path up, down or sideways along a context

There are applications, however, that are not designed to access a web service for workflow recipient information, but rather look inward to its own relationship structure. Currently, the vast majority of workflow applications work this way, but hopefully, with the penetration of People Relationship Management solutions, more and more will be designed around a central repository to enable the concept of multi-dimensional relationships. These applications rely on a periodic batch feed to populate relationship information in their internal structure, or expect the structure to be populated manually by the user. In this circumstance, an additional service will be provided which will return an entire context. For instance, a time and attendance product would update its reporting structure during a nightly batch feed, based on the entire time & attendance context from the PRM repository. The obvious disadvantage to this is that you are limited to start of day information.

Despite the penetration of web services to support service oriented architectures, for the most part the world still works on individual interfaces (at the time of this writing). From a procedural point of view, one should be careful not to get bogged down in the business of constructing a plethora of one-off interfaces. The publication model should therefore be the “pull” model, rather than the “push” model, where it is incumbent on the support team of each application to access the information they need in order to get that application to effectively automate its business process.

Visualization

The multi-dimensional organizational model can be complex. Therefore, it is essential that a tool be leveraged to allow employees to view the relationship structures in a simple and understandable way. This tool should allow the ability to change focus among the various contexts, just as an artist would perceive negative and positive space when viewing a subject.

The tool should allow the user to drill down to lower levels or up to higher levels in order to obtain a birds-eye view of a context. The tool should allow an authorized user to invoke the web service to return information when selected. It should allow the user to drag sections and attach to different nodes in “what-if” mode. This is essentially the mass change and modeling function discussed previously.

LEVERAGING SOCIAL NETWORKS

Social networks have become an irresistible force in society, fundamentally changing the way we interact. Networks geared toward professionals, such as LinkedIn, allow people with similar interests to form discussion groups and share ideas. Informal social networks, such as MySpace and Facebook, allow friends to connect and communicate.

Many major companies are using corporate social networking solutions to aid in areas such as recruiting; however there are many other opportunities to leverage this information. If people are given the opportunity to form connections with others, they will...because that's what people do. People form relationships that are mutually beneficial. For instance, a global technology provider has a corporate social network where software architects from around the world can connect, share ideas and experiences, and help each other solve problems. An interesting phenomenon occurs when people voluntarily connect: they have a stake in each other's outcome. This author has anecdotally observed that if one follows the “official” path for information and assistance, there is less incentive to provide assistance, since that relationship is not formalized and won't be reflected in the person's evaluation. However, the “unofficial” connection, which was made volun-

tarily, will more readily provide assistance despite the lack of tangible benefit. Essentially what is happening is “self-management” where workers find their own avenues of problem solving rather than those directed by management (if management were even to provide such direction). The challenge is for management to tap into this groundswell and leverage it to achieve management’s goals, rather than continue to let it be haphazard, while still encouraging spontaneity and creativity. Essentially, to impose structure on something that is inherently unstructured.

A social network (or any network structure) is essentially a set of peer-to-peer relationships, which People Relationship Management natively supports. Since a corporate social network is under the auspices of the company, the company has access to all of the information captured within it. Rather than let happen whatever happens within the network, the company can define rules that encourage behaviors that are beneficial to the company. Following are examples of how a company can leverage social media to achieve its objectives:

- The company can monitor and reward (by integrating with the Talent Management application) mentoring that occurs between a senior and more junior employee.
- Tasks can be assigned to collaborative groups, and the entire group evaluated based on the outcome.
- A collaborative group can be defined as a recipient in a workflow application. For instance, a manager is asked to make a decision based on complex information. The manager can route the information to a collaborative group, asking them for a consensus recommendation. Thus the manager is leveraging the social network to make more informed decisions. Since the process is controlled by a workflow application, it is much more structured than if the same thing was attempted in an informal manner.
- Social networks grow organically. The organizing principles behind them are not readily apparent. Yet, as a PRM context, all transactions and states are stored and available for analysis. One can tap into them to analyze trends and patterns, and be able to scale beneficial structures throughout the organization.
- Social interactions are intrinsic. If we can understand the underlying logic behind social interactions, we have a great insight into solving just about any problem. The study of man-machine interactions has always been an important aspect to successful technology design. Thus having insight into social interactions will become more valuable as technology evolves.

CASE STUDY

Major Financial Services Provider

In the earlier part of this decade, a major financial services provider found itself in regulatory hot water. Through acquisitions and growth, it had evolved into one of the largest multinational financial services “supermarkets” in the world. However, managing this growth had proven to be an issue. Under intense pressure for profitability, there had recently been incidents where the bank’s employees had not acted in an above-board manner. The CEO had committed to the SEC that controls would improve.

To do this, the CEO outlined a multi-point plan where managers at each level would undergo training so that they fully understood their commitments to their clients and stockholders. New accountability procedures were enacted.

Although the CEO's plan appeared well-meaning, the company lacked the information requirements to enact it. The company was truly global: in dozens of countries on six continents, speaking multiple languages. The total employee base was in the hundreds of thousands. Through the acquisitions, it was difficult integrating the HR systems of the various companies. The company had eventually settled on a common provider (PeopleSoft), but still had several HCM system instances, arranged geographically, with different business rules, and managed by different business units. All information eventually made it to a global data warehouse.

The problem was that, even though the company was global, each HCM instance had its own organization structure. So if a manager in Singapore was supervised by someone in New York, the New York manager had to exist in both HCM systems! The company had a full suite of HR applications (eRecruiting, Time & Attendance, Manager Self-Service, procurement, compensation, etc.), all of whom had workflow components.

A Problem and an Opportunity

However, the main business driver for the system was an Identity and Entitlement initiative. The company was required to carry out periodic entitlement reviews, to determine which assets each employee had access to, based on her position. To implement this, it was imperative that the company have a handle on its fully articulated tree structure. The company needed its primary reporting structure to be fully articulated at all times or else it was out of compliance. There was a "drop-dead" deadline imposed, by which date the system *had* to be implemented.

The company also recognized that it had several contextual managerial roles, and had a matrix management structure. The decision for the initial roll out was to support three management contexts, although the system was designed to support an unlimited number of contexts. Representatives from the business felt that additional managerial contexts would require additional training and a cultural change, so it was deferred to a later phase. The cultural change to implement three managerial contexts was significant in its own right. Each regional HCM had its own business rules and processes. The "direct manager" in one region meant something different than "direct manager" in another. Also, one region's HR generalists were used to updating the reporting structure from the HCM and didn't want to change the process—so the system had to be designed to propagate a context from the HCM, but only in certain circumstances. Coordinating the implementation and testing efforts among the regional HCM's and the global data warehouse presented management challenges.

Planned Functionality

The system was to support employee and manager self-service in order to keep the information in sync. A mass change function allowed executives and HR to respond to reorganizations quickly. A real-time edit during updates to the critical structure ensured that a fully-articulated tree structure would be maintained. A batch process would run every night which would capture HR transactions that would break the fully articulated tree structure resulted in moving all affected nodes up a level, to ensure that the structure was compliant at all times. The users called this a "self-healing" function. The stakeholders recognized a need to "filter" contexts for particular groups of individuals. For instance, the European Union has strict laws governing information privacy. Therefore, the company needed to make certain reporting relationships visible only to authorized parties.

As with many projects, the ambitious functionality came into conflict with the strict deadline. The deadline was paramount, so scope was pared to make the date. The self-service and filtering functionality fell victim to these realities.

Despite some tense moments, the system went live on the required date, and has since provided a real-time view of the true organizational structure across hundreds of thousands of employees, in dozens of countries, whose information resides in several HCM systems. One of the stakeholders summed up the benefits: “The People Tree allows the services to reliably present to the Direct Managers their direct reports for manager-allowed updates to worker records, entitlement reviews for: 1) applications; 2) building space access; and 3) provisioning/deprovisioning of worker services...The tree now is ‘self-healing’ in that if a Direct Manager is terminated one day the tree will move their former direct reports (and rollup reports) up the tree to the first active Direct Manager².”

At this writing, the system has been in production for three years, serving the needs of the company. However, due to economic conditions, deployment of subsequent phase functionality has been deferred.

CONCLUSION

As practitioners of Business Process Management, we strive to make work easier, by automating the administrative tasks involved with a business process, therefore allowing the workers to focus on the tasks that require a human touch. Through effective automation, we are therefore promoting the human capacity, by allowing people to focus on tasks that only a human being can accomplish. Many of the jobs that have recently been lost will never return. Companies will rely more heavily on automation and workflow to eliminate tasks formerly handled by administrators, and even some knowledge workers. The nature of work and the skills that will be more highly valued are changing irrevocably. MIT’s Frank Levy and Harvard’s Richard Murnane argue that the automation of business processes has heightened the value of two categories of human skills: “expert thinking—solving new problems for which there are no routine solutions; and complex communication—persuading, explaining, and in other ways conveying a particular interpretation of information³.”

Through effective automation, we can reduce the administrative and burdensome tasks that get in the way of people doing the creative work that humans do best. People Relationship Management completes the Business Process Management value proposition by acknowledging the value of worker relationships in a business process. Only once the mundane tasks are reduced or eliminated can we leverage the insights that PRM delivers into the way humans interact. If properly implemented, PRM will contribute to improvements in the way organizations are managed, and take the automation of business processes to the next level.

Endnotes:

¹ Galbraith, J.R. Matrix Organization Designs: How to combine functional and project forms. Business Horizons, February, 1971

² Email from project stakeholder, January 17, 2007

³ Levy, Frank and Murnane, Richard. The New Division of Labor: How Computers Are Creating the Next Job Market, April, 2004