

Virtual, Global Teaming: Baxter International Builds a Successful Model

Universal issues in communication and collaboration.

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When Baxter International entered into a global, virtual teaming environment to develop the next generation of its BaxHealth environmental, health, and safety (EHS) and industrial hygiene software, the decision was driven by the need to deliver a high-quality product at the lowest cost within a compressed timeframe. What the BaxHealth development team learned in the 18 months it took to re-engineer and re-launch BaxHealth are lessons about the importance of solid project management, and the need to establish and maintain excellent communication with the entire global team and to follow an agreed-upon process. Whether you are developing a product or a line of service, many of the challenges faced — and overcome — by the BaxHealth team to deliver a product quicker and cheaper can be applied to manufacturing operations and other facility projects.

Background: Time for Change

Several changes within Baxter as a whole influenced the BaxHealth software development team's efforts. In the late 1990s, Baxter was focused on becoming a global corporation; and the company spun

off its Allegiance operations in 1995, resulting in the merger of all its environmental, health, and safety functions in 1997. The main purpose of merging these functions was to encourage the identification and nurturing of synergies within the EHS discipline. Using the same resources (both people and money), the BaxHealth team took on the improbable by agreeing to deliver an environmental application for Baxter as well as supporting the Allegiance operations for their EHS software needs.

It wasn't long before the team realized that it was not meeting its commitments. Where BaxHealth had previously been delighting its customers and developing new tools, it was stuck in an inwardly focused cycle of fire fighting and fixing bugs. Realizing that a long-term solution was needed to break the cycle and bring a return of the team's reputation for exceeding customer expectations, the team considered alternative approaches.

The team decided to consider taking the development of the project offshore to India. It looked at three vendors — two well-known and established companies and one startup firm. Baxter chose the startup company, Sobha Renaissance Information Technology (SRIT), Bangalore,

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India and Renaissance Information Technology (RIT), a subsidiary of SRIT in Glen Ellyn, IL. In selecting the vendor, the team focused on the firm's ability to meet Baxter's quality and financial expectations. The team had confidence from its research that SRIT/RIT was an organization driven by quality and accountability. SRIT's chairman voraciously enforced these basic tenets in his other business endeavors. Additionally, as SRIT was a startup firm working to develop and establish its processes, the team felt it could positively influence the outcome of the project by working with SRIT as they implemented the Rational Unified Process (RUP).²

The Transition Begins: The Global Team

Making the decision to partner with another organization housed halfway across the world quickly drew attention to the importance of communication, cultural understanding, and process. The newly expanded BaxHealth Global Team needed to learn how to work together without the benefit of having the development team down the hall.

While the team worked to establish effective teaming between Deerfield and Bangalore, it became apparent that the project was not aligning with the evolving company EHS program. As Baxter reorganized EHS operations, establishing an "integrated" project plan that not only addressed software development but also alignment issues became critical. Bob Seguy, the BaxHealth project team leader, decided to find assistance in managing the project. He engaged Integrated Project Management Company, Inc. (IPM) to assess the project status and opportunities to optimize the project management approach and mitigate the effect of the known or potential obstacles to project success.

Project Leadership

During IPM's initial evaluation of the project, it identified the following critical issues:

- *There was an inadequate focus to project management leadership; Bob Seguy was addressing multiple, tactical priorities outside the BaxHealth project.
- *There was an inadequate focus to strategic EHS needs; Seguy was handling day-to-day project management decisions.
- *Team members on the U.S. side were feeling over-allocated. Their default mode was to try and "handle it all" as it was not clear to them who was supposed to handle the various project aspects.

An IPM project manager stepped in to relieve Seguy of the time-consuming, day-to-day project management responsibilities while maintaining his involvement in all final decisions. This dedicated project leadership relieved the problem often seen when internal staff are handling project responsibilities in addition to an already large workload.

Resolution of the "over-allocation" issue proved to be critical to turning the project around. However, it was not resolved before some of the U.S.-based development staff decided to leave the project. The global team environment did not fit their traditional expectations and they felt they could not adjust or be successful. Defining clear roles and responsibilities between the teams within definite timeframes of the project was critical.

Based on the recommendations from IPM's analysis and application of its Integrated Project Management® methodology — applying rigorous process, discipline, and leadership throughout the project — steps were taken to transform the BaxHealth U.S. and Bangalore team members into a single, high-performing team. The critical steps were:

- *Establishing planning at all levels, not just at the top or at a high level of management tasks.
- *Establishing the processes that would foster consistent and open communications among team members and minimize biases and finger-pointing.
- *The SRIT team defined the process they

were going to follow off the RUP model. Larry Zimmerman (SRIT's president) worked with the SRIT team to ensure they were abiding by and constantly improving/streamlining this process. The Bangalore team identified an internal project manager to ensure that the development team managed to this process. The project manager worked closely with the developers to ensure their work estimates were accurate, and that the quality of software delivered met Baxter's specifications.

*Assigning a full-time IPM project manager to allow Bob Seguy to focus on the strategic problems and networking critical to the project's success.

*Setting clear and measurable team and individual goals.

*Developing an integrated project plan and schedule focused on real work and including all the time demands on the project team members, even those outside the BaxHealth project.

Internal Team Communications

From the onset of the project, a BaxHealth management team was established. This team — consisting of Bob Seguy, the SRIT project manager, Larry Zimmerman, and an IPM project manager — met weekly and focused its attention on managing risk. The agenda for the weekly meetings focused on trying to anticipate what could go wrong and identifying contingency plans — and implementing the contingencies as needed. The risk factors included everything from loss of key project members to loss of facilities due to natural disasters.

The BaxHealth management team knew that the offshore development model could work, but it required a significant effort. Each week, the management team needed to consistently communicate the status of the project with respect to goals, risks, and progress to all team members. The adoption of a strict discipline for documenting the discussions and commitments made at the management and technical team meetings, which were also held weekly, and the regular review of the

progress being made towards meeting those commitments were critical to this communication. Additionally, the IPM project manager attended both meetings and served as a conduit for formal communication between the management and technical teams, even though regular, informal communication was encouraged.

External Communications

Communication to those outside the project — EHS and operations corporate and division management and BaxHealth users — was also critical to the project's success. Historically, the BaxHealth team "delighted" its customers, but this was partially due to a "never say no" attitude. The "never say no" approach was initially vital to the project. It led to users believing in the project. However, it eventually led to unrealistic expectations from users and corporate and division EHS management. As the BaxHealth project scope expanded to include environmental reporting, without an increase in staff or budget, the team realized that, at times, it had to say "no;" it could not be all things to all people. Ineffective communications resulted in an expanding list of shortfalls — unrelated to BaxHealth and not under the team's control — for which BaxHealth was held accountable.

Bob Seguy again looked outside the team for assistance, this time to a recent marketing graduate. This person's project was initiated to develop and implement a marketing strategy — to identify the forces affecting the success of the project and address them. BaxHealth users (customers) were interviewed, as were those who supplied needed EHS data and others who analyzed and used the data in the system. The project included Baxter employees around the globe at manufacturing facilities and offices, managers and supervisors, EHS professionals, and operations staff. The results of this project provided a critical set of information points for the BaxHealth team. The marketing project identified factors the team needed to address to achieve success *and* factors that were negatively

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impacting BaxHealth, but which the team did not control. The identified factors included:

**Technical issues:* hardware, telecommunications, functionality outside of the influence of the team ("Some European sites have a hard time with BaxHealth because of infrastructure issues beyond the scope of the project — such as slow access and time delays.")

**Geographic issues:* language, regulations, culture — that were a universal problem for Baxter as it made the transition to a global company and to which the BaxHealth team needed to be constantly sensitive ("Many facilities do not speak fluent English and translation issues become a problem.")

**Deployment issues:* organization, communication, role, and responsibility definition — that were not unique to the BaxHealth project, but could be partially addressed by the team. ("Most of the sites do not understand what needs to be reported and the reasons for it.")

**Strategic issues:* corporate EHS vision, and division EHS objectives that needed to be influenced by Seguy in his role as sponsor and leader of the BaxHealth project ("Corporate EHS and BaxHealth initiatives are not supported at the plant level.").

Initiatives were launched to address aspects of these issues that were under the control or influence of the BaxHealth team:

**Addressing technical forces:*

-Improve communications by open, regular discussions with end users and within the team

-Define and communicate objectives, requirements, and assumptions for each BaxHealth application

-Migrate to a uniform and stable architecture

**Addressing geographic forces:*

-Conduct regular "road trips" for face-to-face discussions with facility EHS representatives around the world

-Develop key support materials that visually relay information

-Translate some support materials into

other languages

**Addressing deployment forces:*

-Define roles and responsibilities so people know where and how they fit

-Define rules for making decisions to improve collaboration and create accountability

-Identify a team member to focus on long-term, continuous improvement

**Addressing strategic forces:*

-Develop and communicate the BaxHealth vision statement

-Focus corporate and division EHS efforts towards a common vision by developing and implementing strategies to support EHS initiatives and imparting a positive influence on programs, organizational efficiency, and morale

-Encourage the application of lessons learned by the BaxHealth team in a wider context within the EHS function.

From Tenuous to Robust

The BaxHealth global team had its first release on August 8, 2001. It was a very significant time within the project. Although the team delivered the product as scheduled, there were still improvement opportunities. Some of the challenges the team had to overcome, although typical of global projects, were frankly a bit disheartening. A smoother rollout had been expected. However, the processes the team had followed in development aided quick resolution of identified issues. This is when the team found it could leverage its global nature. Problems and their resolutions were handed off daily, shortening the amount of time it took to fix a problem from days to hours.

The team also knew that its processes could benefit from continuous improvement methodologies and identifying what went wrong. The team identified a single deviation from its process in the first stage of development, the inception phase, as being the single largest contributing factor: the decision *not* to have the SRIT development team members cohabit with the U.S. team members in the Deerfield, IL office

during the inception phase. While a seemingly sound economic decision at the time, it delayed the development of the "one team" spirit.

Using continuous improvement methodologies and root cause analysis, the team went through its processes. Today the development process not only reflects quality improvement and faster turnaround time, but it is also a more rigorous, robust process. The team has developed a greater capacity to continually challenge itself, and to recognize and implement ideas for improvement.

A major learning from the BaxHealth team's efforts is that using global teams to develop software is an approach that results in a high-quality product in a short time and at lower cost. The approach requires patience, excellent communication, and a can-do attitude. It also requires personal accountability from all team members; finger pointing cannot be tolerated. Timely, respectful communication of status, progress, and problems is required.

IPM's consistent application of project management process, discipline, and leadership aided the team's efforts. This approach ensured that all aspects of the project were managed effectively to meet the scope, schedule, budget, and customer satisfaction expectations for both the technical and business deliverables of the BaxHealth software development project. Having SRIT rigorously follow the RUP and always looking for continuous improvement opportunities greatly enhanced software quality and ensured a realistic timeframe for software delivery.

Finally, a solid marketing strategy must also be deployed. The team must be able to talk to end users about the project and help the users to understand the value of what the team is doing. That included explaining the project processes — what they are and how they work.

Learnings: Proactive Risk Management

From the BaxHealth virtual partnership experience, the team offers several

suggestions about what to "do differently next time:"

- *Bring everyone on the startup global team together early in the project and discuss what the team plans to do and why, and the team's process for achieving goals. Include people from all partner sites.

- *Make sure the partner organization has "gray beards" as well as young staffers; experience, as well as bright new ideas, is needed.

- *Establish the optimal project management structure early in the project and ensure that the project management leadership is strong. Ensure that roles and responsibilities are reviewed on a frequent basis (for example, quarterly). Things change; people change; update accordingly.

- *Keep the project management team at the team's headquarters, consolidating technology and project management aspects of the team's functions. However, ensure the software project management (requirements gathering, software development, and status) to be managed offshore. Put all information into one integrated management plan.

- *Develop and implement a process for weekly updates on what is happening at a task level.

- *Carefully define "success" metrics early in the project that measure not only the timeline and budget progress, but also the interpersonal aspects of the team's functionality, so you can determine if the project is on track and if the team is performing well.

- *Align the project with the needs of the business; evaluate this alignment quarterly, as it may be a moving target.

- *Communicate effectively, calling two people a day (more or less, depending on the project), to provide updates. Survey needs and concerns. Focus on reality, not just one person's perception.

- *Expect a high degree of accountability for everyone involved in the project and communicate this expected level of performance.

Managing Virtual Teams

For a virtual team (VT) to be successful, you must understand that such teams:

*Can be held just as accountable as face-to-face teams. They can't blame technology for failure. Out of sight does not mean out of control.

*Are a choice, not a last-resort measure. VTs can out-perform face-to-face teams, especially when asked to generate ideas or brainstorm. They may be a preferable mode to tap into the best available resources, regardless of where those resources are located.

*Have different dynamics — not better or worse, just different. What works for a face-to-face team may not work for a VT. New team roles may be needed, such as a person to formally manage the team knowledge base and a person to make sure the chosen technology is always up and running when the team needs it.

*Can develop trust among team members, just like face-to-face teams. Predictable communication — timely responses, useful feedback — is key to building trust. Focus on the process; rotate leadership as the needs and tasks of the team change.

Continuous Process Improvements

What the BaxHealth team learned and what the team changed:

*Consolidate the subteams' "to do" lists in one place and review all pending items with the team. This helps to identify overlaps and redundancies, helps to flag areas that need attention or change, and gives everyone a better appreciation for the other team members' roles. Review and update your roles and responsibilities matrix quarterly; ensure that full-time equivalents — identifying non-project commitments for each team member that need to be included in allocating to their full-time commitment — are part of this document.

*Minimize regularly-scheduled team meetings. Virtual teams do not work 9-to-5, so encourage team members to meet when they need to address issues. Don't accept team members putting off a discussion or decision until the "next team meeting." Make sure they understand that a phone call or an e-mail can take the place of a walk down the hall to contact another team member. Consolidate team meetings that have to be held and establish a regularly-scheduled time and format that are best suited to the team's and the project's schedule.

*Include team members' non-project commitments into the project plan and schedule. Review resource schedule and production schedules weekly. Avoid over-commitment and specify priorities so that the team knows what they need to work on. Allow enough time for review and feedback at critical points.

*Keep the team on even communication platforms to avoid the perception of "insiders" and "outsiders." Use technology in an even manner with everyone on an audio conference call or videoconference; don't mix modes. Don't use the mute feature to hold private discussions on one side of the meeting; this degrades the level of trust. Have people announce who is speaking every time if it is an audio conference call; you won't be able to tell who is speaking every time just by the sound of their voice. Validate decisions so that both sides of the team have the same understanding of the decisions being made.

Understand that shifting technical resources is no panacea. Projects need win-win partnering to work through any problems emerging as new process development continues. For example, the project was temporarily (three business days) put on hold when identified problems needed to be worked out. For some partnerships, such a move might dim hopes of a successful project. The partner firm's mutual trust in this case was strong, and the Baxter team members found that their partners were very capable of solving those problems by identifying root causes and putting fixes in place without pointing blame.

Another lesson is that the focus on process focus forces the team to talk about why changes are being made and the way in which the team and the project are making the transition. The team used flow charts to map the decision points in the process that defined adopting a concept and following the concept to its actual application.

Finally, the team developed a balanced scorecard that looked at the project team from an enterprise perspective. The team's metrics measured training, user feedback surveys, customer support, alignment with functions, building the best team, speed,

quality, decision-making, and investments.

Excellent team dynamics, strong project management leadership, comprehensive and concise communications, and following a well designed process are universal concerns in any project. The need is even greater with global, virtual teams. Clear goals and an understanding of what changes are needed are essential to the success of such a project. However, the project will falter if project management skills are lacking.

Renewal, or continuous improvement for operations effectiveness, will remain an integral part of the team's processes. The BaxHealth team members need to meet the challenge of retaining what they have learned and applying the learnings to other operations. These learnings and tools can be applied in manufacturing, administration, and other areas of an organization.

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Footnotes

1. Baxter International is headquartered in Deerfield, IL.
2. The RUP involved use of IPM's Integrated Project Management® methodology focusing on consistent application of project management process, discipline, and leadership.

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