PAYOFF IDEA

Ideally, IC staff members should fully understand all end-user computing environments and users' business needs. In turn, end users should have a complete knowledge of the end-user computing tools available to them. Obviously, such total understanding is impossible for each given their own job responsibilities and time restrictions they face. One solution to this dilemma is for IC staff members to join with end users to form a team dedicated to resolving conflicts and finding solutions to meet end users' business needs. This article provides guidelines on how to develop and get optimum results from such a team.

OVERCOMING CONFLICTS AND RISKS

The goal of the information center is to work with users to help meet the organization's business needs. The IC offers alternatives that match these needs with end-user computing products. It also advises users on the most effective solutions and recommends the most effective products for each solution. In addition the IC teaches users how to use end-user computing products and assists them with all aspects of this function. It is the users' responsibility to learn what the IC teaches and know how to avail themselves of all the services it provides. They must understand what is taught in class, on videotape, and in computer-based training.

There are two challenges apparent in this environment. The first challenge is for IC staff members to learn about the users' business. Although IC staff members cannot be expected to know the users' business needs in depth, learning to work with users who are trained, experienced and highly qualified in their own business areas can alleviate the constraints (eg., limited staffing and time) that could otherwise prohibit resolution of this challenge.

The second challenge is for users to understand end-user computing products and how they can be applied to their business needs. It is often difficult for users to reach such a level of understanding while handling their own job responsibilities. In addition to time constraints and work load problems, users often find that they lack sufficient knowledge of computers and their proper use. They may feel experienced in programming with end-user products, but lack necessary programming discipline to accurately state a problem and solution using the software. Worse yet, users may not have adequate experience in data management, which may result being inaccurate or lost data. Users seldom, if ever, have enough time to learn how to overcome these risks.

An apparent solution to these challenges is increased user dependence on the IC for application development. This would ensure that end-user computing products are used more effectively, solutions implemented more quickly, and the need for training reduced. The design, implementation, and management of databases would be performed more accurately and safely, reducing the amount of data lost.

There are however, long-term drawbacks increasing user dependence on the IC. The IC's solution to a user's problem might be inadequate because the IC is relatively unfamiliar with the user's business area. Solutions might become less responsive as more and more users become similarly dependent. Users might not learn as much about the products and how they can be used most effectively in their areas. The IC might find itself overburdened as more and more users become dependent on it. Finally, encouraging a certain amount of dependence might lead to an overall decrease in user self-sufficiency, a trend that nor organization want to encourage.

When implemented properly, the team approach spotlights the IC as an invaluable component of the organization.

Working together as a team, IC staff members and users can help resolve these conflicts and risks to address business issues, become knowledgeable about systems, and become more experienced and self-sufficient in using the products, and learn more about the need for data management. Ultimately, this will lead to more accurate and timely fulfillment of users' needs and will spotlight the IC as an invaluable component of the organization.

PREREQUISITES FOR TEAM SUCCESS

The four basic prerequisites for building an IC end user team that will achieve high business payoffs are users who are willing to work with computers to resolve their business needs: and accommodating IC dedicated to helping users become self-sufficient;
resolving user problems; and recognizing the possibility that end-user computing is a feasible solution to these problems.

THE SEVEN “C”s

If these prerequisites are met, a team can be established with the confidence that the effort will be successful. The success will be enhanced further if the team is formally established and adheres to the seven Cs, which are:

- CUSTOMERS - Users must have needs, be looking for solutions, and be motivated to learn and invest the time required to apply their new technical knowledge to solve their business problems.

- CONSULTANTS - IC staff members must possess end-user computing and analysis skills, keep current with the latest computing technology, offer ideas, and be motivated to consult, advise, teach, and serve users. They must be available to help users identify problems, assess end-user computing potential, learn the selected products, and implement solutions.

- COMMITMENT - Both users and staff members must be committed to the team effort and find the time to work as a team. The IC must commit to tailored training, and users must attend classes and learn the material. Finally, management must commit necessary personnel and computer resources to ensure team success and user management must accept solutions created by the team.

- COMMUNICATION - The primary requirement for a successful team effort is communication, which allows all team members to share problems, ideas, alternatives, recommendations, and solutions. Communication enables users and the IC staff to work together toward a specific resolution of users’ business needs.

- COOPERATION - All team members, both users and IC staff members, need to cooperate. This includes finding the time to work together toward a common goal, and being flexible enough to listen to and accept each other’s ideas.

- CONCENTRATION - For the most effective results, the team should make a concerted effort that adheres to ground rules on focus, time spent, and duration. Team focus should be on a single customer area, and members should dedicate a large portion of their time to the projects being undertaken. This ensures that management allocates a prescribed amount of employees’ time.

- CONCLUSION - Knowing that a team effort has a pre-defined duration encourages timely results. Two things should happen when the project has been completed: management should review all projects undertaken and solutions implemented, and results should be documented along with associated savings. If the user manager documents the team’s success in a letter to the IC manager, this will add immensely to IC value within the organization.

If the Seven Cs are followed, users and IC staff are more apt to work as a team striving for a common goal. If any one of these items is absent, team success could be jeopardized and the team’s original intentions may be lost.

ESTABLISHING PRODUCTIVITY TEAMS-A 10-STEP PROCESS

At IBM’s semiconductor manufacturing facility in Essex Junction, Vermont, productivity teams have been established to provide users with solutions to business needs and significant savings. Each of these teams, which comprise IC staff members and end users, performs 10 major steps, which contribute heavily to the team’s success, including:

- Identifying the end-user area.
- Defining the scope of effort.
- Assessing requirements.
- Selecting projects and team members.
- Marketing the team approach.
- Defining ownership.
- Performing in-depth analysis.
- Training users.
- Implementing solutions.
- Concluding the effort.

Each of these activities is discussed in detail in the following sections.

Identifying the End-User Area

First, an end-user area must be targeted for a team effort. To do this, the IC staff must be aware of all users’ needs and the organization’s priorities. For example, there may be a greater need for resolving manufacturing or marketing problems than administrative issues. To gain this knowledge, the IC staff must interview key users and management, understand the company or location priority list, meet with site executives or their staff, and discuss findings with IC management. The purpose of all these activities is to identify the user area that can benefit most from a productivity team’s efforts. The IC manager should then approach this user area with the productivity team offer.

Defining the Scope of Effort

After the user area is selected, the IC staff member most familiar with that area should meet with a representative user, and (if available) the MIS application analyst supporting that area. The IC staff member should explain the purpose of a productivity team and discuss the potential benefits of a team effort. The three should then determine what advantages might be gained by a team
approach. This process establishes the scope for the proposed team effort.

Assessing Requirements

An information gathering process is essential to assess requirements for the potential projects. Several brainstorming sessions might be required to adequately develop the set of requirements in order to confirm the feasibility of proposed projects. Participants should include the IC manager or consultant, end-users, end-user management, and the MIS applications analyst (the MIS applications analyst might only help create and tailor a list of possible projects so that it includes only end-user computing projects). During the brainstorming sessions, key users should consult with other users to determine if all needs have been considered. This ensures that the correct projects are listed and that end-user management will be more likely to concur that the effort appears sound and that solid benefits will result from this team effort.

The MIS analyst should add any application backlog list for discussion. This list would contain projects that the user needs, but for which the MIS organization lacks the resources to implement. Brainstorming sessions might also uncover a hidden backlog. These are projects the users need but have not identified on any formal list, usually because users know the backlog is already too long. This is also an appropriate to discover end-user management’s pet projects or pet peeves with respect to data processing support and determine whether end-user computing can resolve the issues.

If so, resolving one or two of these at the outset of a team effort helps convince management that the team effort is effective.

End users need assistance to determine if end-user computing product can solve their needs or if an application must be developed by the MIS analyst. Those involved in the brainstorming session must carefully analyze requirements for each potential project to determine whether the most effective approach is application programming or an end-user computing product.

Selecting Projects and Team Members

Brainstorming sessions should last only a few days. Their purpose is to determine potential, not develop solutions. The results of these sessions should be a list of potential projects and a list of those projects that are beyond the scope of the productivity team effort. With end-user management included in the brainstorming sessions, the right projects are sure to be selected and the team effort will be defined with the proper scope.

The next step is to select the team members. Members might include brainstorming session participants, IC staff members, users with the required business knowledge, and the MIS applications analyst (as required). To reinforce the idea that the user owns the team effort and its results, the team leader should ultimately be a user. When IC staff members are selected, it should be on the basis of either education or experience in that particular business area in question. For example, a team effort in an engineering area would benefit most from a staff member with experience or an educational background in engineering.

In addition to major team members selected at the outset, other members can be added as a project progresses. For example, IC staff members who are product specialists may teach tailored courses and may be involved during the implementation effort. When working on a specific project, there may be users who can contribute valuable information. When that project is completed and the team moves to the next project on the priority list, different people may be involved. For the sake of consistency, the team leader and at least one IC staff member should always remain on the team.

Marketing the Team Approach

With the list of recommended projects and the selection of team members completed, the next activity is to market the team approach. IC staff members must reconfirm with their management that focus on the team effort and user area makes sense. The list of projects should be presented, and potential benefits should certainly outweigh the IC resources required to complete the team effort.

If IC management approves, the IC staff members and the key user then inform user management that the team approach can help that area solve some important business problems. This presentation is an interim review before meeting with senior management. It allows supervisory managers to understand the value of the team effort and expected results, and gives them the option to adjust priorities and other matters before the final presentation is made.

The final step in marketing the team approach is to convince senior management of the benefits of a team approach and obtain his approval to work on these projects. Several points should be covered during the final presentation. If this is the first contact between the IC and senior management, the session should start with a brief description of the IC and its mission.

Next, potential team accomplishments should be explained and the projects being recommended for implementation should be detailed. Potential savings expected from each project should be explained, especially if savings are a top priority. For example, will the team effort result in significant monetary savings or reduced workforce? Will it result in productivity enhancements? In addition, it is vital to convince senior management that the team effort will help by reviewing the seven Cs discussed earlier. Communication and tailored training will demonstrate the value of the team approach, and the combined effort to produce desired results should indicate the potential long-
term benefits to be realized through user self-sufficiency.

If the seven Cs are adhered to, the team's success is almost certain.

When seeking final approval, a completion date for the project should be targeted (e.g., two to four months is typical). This should be sufficient time to include the necessary personnel, define projects, set priorities, re-set, obtain management support, and implement the most effective solutions. To set the time period at less than two months suggests a rushed effort that might yield incomplete results. More than four months suggests that there is time to work on less important projects that may not have significant return value. Longer efforts could also mean that users remain dependent on the IC, postponing increased self-sufficiency.

Defining Ownership

Selling the team approach requires significant effort on the part of the IC and a lesser effort by the user and MIS analyst. As a result, the IC manager or consultant is probably the best choice to head the team at the outset. The IC manager or consultant has the broadest perspective for getting the team together, understanding its purpose, and developing its goals and objectives. Once the senior management has given the approval to proceed, the solution phase begins. This phase involves in-depth analysis, training users on the selected end-user computing products, implementing solutions, and concluding the effort.

At this point, ownership should shift from the IC to the user, who then becomes the team leader. In this way, the user organization owns the entire effort, the solutions to the various projects, and the commitment that it will become self-sufficient after learning and using the software products. If the IC continues to own the team effort beyond this point, users tend to still rely on its support after the effort is completed.

Performing In-Depth Analysis

In-depth analysis involves reviewing the list of projects and associated requirements to reconfirm project feasibility and whether an end-user computing product is an adequate solution. If any projects do not appear worthwhile at this point, senior management should be so informed. Those projects can then be turned over to the MIS application analyst for further consideration if necessary.

During this phase, the team works together to find alternative solutions for each project and select the most effective solution. Only after this process is complete should IC staff members work with the other team members to select the appropriate end-user computing product to implement that solution. Projects should be implemented one at a time and in the sequence approved by user management.

Training Users

Training is provided by the IC staff; however, those IC staff members assigned to the productivity team are not necessarily the teachers. Other staff members might have more comprehensive knowledge of the selected product. Both the IC staff members selected to be trainers and team members, however, should work together to tailor training to the application. The generic examples found in most course documentation do not help users who find it difficult to relate volumes of data to their own information needs. If the trainers understand this and develop usable documentation, the productivity team's efforts will yield greater results.

Training can be conducted in a classroom or in the user's work area. The classroom is the more effective environment for a large class; however, the work area has the additional benefits of providing a comfortable, less formal environment, and users are generally more open to asking questions and understanding the product.

Implementing Solutions

Implementing solutions begins either during or following training. With well-tailored training, examples used in class could actually be prototype solutions for the project (or portions thereof). The user, as owner of the solutions, should use the newly acquired skills to write the solution. This encourages the user to understand the product and the basis of the solution. IC staff members should guide the user in implementing the solution, answering questions about the product, assisting with any data migration, and acting as a communicator to the data center. The user completes the effort for each project by installing and verifying the solution and measuring its benefit. The implementation process is repeated for each project.

The team leader should periodically conduct status meetings with team members and management. These meetings should provide updates on projects and results, ensure that the team continues to work toward its prescribed goals, and permit adjustment of project priorities if required.

Concluding the effort

When all projects have been implemented, or the predefined duration of the team effort has been reached, the team leader should meet with the user manager to present the results in the form of a list of completed projects and the benefits realized for each project as well as a summary of the benefits of the total effort. The user manager should respond with an assessment of the effort, which should be documented and presented to the IC manager.

At the conclusion of a productivity team effort, the IC should let user management know that its traditional consulting, training, and walk-in or hot-line services remain. In fact, such support might be
enforced because of the more comprehensive knowledge that the IC now has about the end users' business needs.

Productivity teams at IBM's manufacturing facility in Essex Junction have resulted in significant savings for users. These savings vary according to the effort expended. In general, when users contribute significantly to the team effort, benefits are greater. Two types of productivity teams are offered at the Essex Junction facility: one for the professional office system (PROFS) and one for decision support. The PROFS team is primarily educational and has been tailored for managers and secretaries. Personnel can now, with little effort, attend several one-hour classes and realize large time savings (see Exhibit I, columns A and D, and E).

Decision support systems include data reporting and analysis projects. User effort has been greater in these situations because the problems are more complex. The IC has also expended more effort to tailor training to the application. Exhibit I, Columns C and G, are examples of significant savings despite larger effort. In some cases, users have been unable to dedicate sufficient time to the team effort, or have not followed all of the seven C's; benefits have diminished accordingly (see Exhibit I, columns B, and F). Benefits are not always measurable during the productivity team effort, but can be seen at a later date. For example, one solution provided real-time access to process tool and exhaust fan connections. This information proved vital in avoiding damage and hazardous conditions when a small fire broke out.

INITIATING A PRODUCTIVITY TEAM APPROACH

Selling this approach to a user is easiest if past team experiences in other organizations can be cited. Obviously, without past experiences, this is impossible. Fortunately, IC managers can follow several steps to get started. They should begin with the guidelines outlined in this article and then talk to other IC managers and staff members. The concept should also be discussed with users to understand their level of acceptance of end-user computing, their current needs, and whether the use of productivity teams might benefit the organization. Managers from other user departments should be interviewed to discuss their needs, to determine if teams might be successful in their organization and to assess whether there are feasible end-user computing opportunities in their organizations. The IC manager should also draw on other sources for leads. For example, there may be staff organizations, planning groups, or site management assistants who have a unique perspective on the entire organization and can assist the IC in selecting the most appropriate organization for the first team effort.

When management at IBM's Essex Junction facility decided to implement a team approach for assisting users, other locations were visited to determine if any such programs had already been implemented, and if so, how successful they had been. During this study, it was discovered that in cases in which team efforts had been implemented, savings were astronomical both in terms of dollars and personnel. A benefits chart that summarized these successes was then developed.

For the first team marketing efforts at the Essex Junction location, the results obtained from other locations were presented. Providing management with tangible evidence of the productivity team approach success made it easier to get the green light to proceed. After a few team efforts have been completed in an organization, the benefits charts can be revised to reflect actual team successes and the testimonials of satisfied user managers.

To reinforce the idea that the user owns the team effort and its results, the team leader should ultimately be a user.

Finally, consider creating a sample document of understanding which states the level of expected commitment, effort, duration, and how results will be reported. Some people may consider these documents too formal. A sample one, however, is helpful for discussing the ground rules, how the IC is committed to help, and what is expected of the user. The document is also the place to include an escape clause so user management can gracefully terminate the effort if it is unproductive. With a document of understanding, the IC manager has the same opportunity.

Using information presented in this article together with visits to other locations, interviews, benefits charts, and sample documents of understanding, the IC manager can identify the departments that are the most appropriate candidates for solutions, success, and high payback to the company. As successes are realized in the first departments, it will become easier to sell user management on the idea of productivity teams, and executive testimonials for completed efforts can be presented. These, together with savings in terms of dollars, personnel, or time make it easy to sell other departments on the productivity team approach for solving high priority problems and becoming self-sufficient with end-user computing products. In addition to helping end users meet their business needs, the productivity team approach makes it clear that the IC is a vital and significant part of the organization.
Exhibit 1. Productivity Team Impact

Key:
- Savings
- Effort Expanded
- Duration of Project

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