Abstract:
Cybermanagement, the management structure of the future, is designed to respond quickly and effectively to the changing needs of the information technology environment and the university setting. This new structure, based upon the concept of self-directed work teams, goes a step further in encouraging team evolution. Like the elements of a living organism, members from various sections come together to respond to challenges as they arise, uniting the individual strengths and talents of each team member toward the achievement of a specific goal.

This new structure offers a myriad of advantages. Projects are assigned to those persons most capable of achieving the desired end. The interaction of personnel from all corners of the agency promotes better communication and an invaluable opportunity for new skill acquisition. Pairing up team members who work well together boosts productivity and employee morale. Rather than cogs in a machine, individual employees become valuable assets, recognized for their particular contributions.

The results in productivity have been tremendous; the assessments by the staff are rated as excellent, but more importantly, the customers are satisfied.
Cybermanagement in a University Setting

*Boosts in productivity, excellent staff assessments, and increased customer satisfaction are the results of “cybermanagement”, the management structure of the future designed to respond quickly and effectively to the changing needs of the information technology environment in the university setting.*

**The Problem: Traditional Organizations Constrain Dynamic Ventures**

The static, compartmentalized structures found within many large organizations were themselves, at one time, revolutionary. The highly specialized, assembly-line approach to business management, a product of the Industrial Revolution, allowed companies to employ large numbers of low-skilled workers who might not even speak the same language. In serving the needs of the time, this approach proved efficient and effective. In our present day, however, the needs have changed. Many large organizations have turned away from rigid, bureaucratic structures and embraced a more open, employee-centered approach.

The dawn of the Information Age has accelerated the obsolescence of the traditional bureaucracy, particularly in the area of technical support. Its structure must be flexible enough to permit growth in unforeseen areas, while at the same time coordinating its actions toward the singular goal of satisfying customer needs. The sheer diversity of user concerns requires support personnel to be well trained, multi-skilled, and in constant communication with one another. The organizational structure itself, therefore, must encourage these individuals to act with initiative, utilizing all available resources to address the problem at hand. In other words, the individual elements that comprise an effective IT customer service provider must be able to respond quickly and adapt to the most pressing needs of the whole, a goal most bureaucratic organizations could not hope to meet.

Unfortunately, many colleges and universities across the country still find themselves promoting customer service and total quality management with old traditional organizational structures, designed to ensure control on very well defined goals and objectives. This has frequently resulted in a closed communicative environment in which employees, especially those at the bottom of the hierarchy, are isolated both horizontally and vertically. Unable to see beyond the expectations of the moment, individual employees are all too often denied the opportunity to enhance the organization – their creative energy, initiative and insights are resources wasted. Entire departments will often operate in much the same way, stumbling along blindly toward some unknown destination.

All reorganizations of corporations and industries provide significant challenges, but the challenge is particularly acute in higher education. Built on years of traditions and climates of bureaucracy, the university structure had been largely unaffected by the shifting profit margins of the corporate sector. This is no longer true. Unfortunately, the vast organizational changes made possible by the IT revolution have seldom found their way into this bureaucratic world. Layer upon layer of mandates and regulations, found especially in state institutions, stifles the ability of most any subordinate group to adapt and evolve at the pace that technology demands. And it is in this environment that so many university-based IT support services must exist, struggling constantly to keep up with user demands. So how can an IT support department, operating within the constraints of a university setting, organize itself to achieve the flexibility so necessary for providing quality customer service?

**The Solution: Cybermanagement**

The management of Customer Technology Services (CTS), an IT support department at the University of Texas at El Paso, took up this challenge. Faced with an unforeseen and seemingly insurmountable increase in technology user needs, and working within an infrastructure which emphasized specialization and narrowly-defined employee roles, it was clear to all of us that only a complete reorganization would enable the department to meet its goals.

After two years of experimentation and fine tuning, our reorganization is a success. The structure we devised, dubbed “cybermanagement”, works within the constraints of the traditional university structure, while at the same time encouraging innovation, teamwork, and initiative among its own components. Under cybermanagement, productivity within CTS has soared, emergency projects and office “fires” are handled quickly and efficiently, employee satisfaction has never been higher, and the level of customer satisfaction continues to rise.
What is Cybermanagement?
Succinctly put, cybermanagement is a structure which encourages fluidity in an organization so that it can adapt and evolve in accordance with the changes in the needs of the customer base. It does this through a strong emphasis on teamwork, cross-training, open communication, and the vigorous sharing of resources. In short, cybermanagement combines the flexibility of the “power team” concept with the stability of the traditional managerial approach.

The structure developed by the managers of CTS consists of three areas: standing teams, ad hoc teams, and management.

Standing Teams
The world of business administration has been flooded in recent years with books and articles extolling the virtues of “power teams” in the workplace. Recognizing the obvious values of this concept, the managers of CTS put it to use in their own structure. Permanently established work teams, each addressing a different aspect of the ultimate goal (customer satisfaction) form the foundation of the department. The individuals who comprise these teams work closely with one another, and in full cooperation with the members of other teams as well.

Teams within CTS include such things as the HELP Desk, the Campus Operators, the Technology Corner, IT Training, and Client Support. Teams generally establish their own goals, of a broad enough nature that individual members are seldom limited to performing specialized tasks. Members share virtually all their duties, and are in charge of setting their own working schedules and vacation times through mutual consent. Each individual is highly trained to the point that, even in the absence of one or more members, the team is capable of performing its essential functions.

Team boundaries are extremely fluid, and members are encouraged to learn as much as possible about the duties and responsibilities of other groups within the department. It is common practice, for example, that during times of decreased Switchboard activity, one or more of the Campus Operators might sit at the HELP Desk, learning the skills necessary to provide backup support. Personnel from any section of the department might be asked to serve as either a backup or primary trainer for a particular software package. Recently, staff from the HELP Desk began accompanying Client Support Technicians during service calls, not only meeting many of their customers face-to-face for the first time, but learning first-hand what additional helpful information they might request from the customer at the time the call is opened. Since the right hand (so to speak) now knows what the left is doing, there is much less redundancy in the performance of job-related tasks, an openness to innovation from any section, and a better overall spirit of cooperation. Furthermore, each staff member within the department is given a chance to develop skills in a variety of areas.

Multiform Teams
The multiform team provides the built-in flexibility so essential for good IT customer service. These teams are temporary, established at any time to meet a specified short-term goal. A multiform team may consist of virtually any number of persons, and its membership is determined entirely by necessity and availability – members often even be recruited from other campus departments.

The chief strength of the multiform team is that it cuts across all boundaries, tapping the particular talents, abilities, and resources of individuals from throughout the university. One such team was brought together for the purpose of implementing a new electronic mail system on the UTEP campus. The invited participants were mostly computer lab coordinators from throughout the university. This group worked out so well that it eventually became a permanent entity, known as the Computer Action Team (CAT). Other groups might be called together at a moment’s notice to complete some emergency project, such as the development and implementation of a new service. Any individual at any level might serve as the leader of a multiform team, thereby giving more people the opportunity to contribute to the success of the department in a highly visible way.

Employee Focused Management
A set of four “coaches” oversees the day-to-day operation of the various teams within the departmental infrastructure. The replacement of the term “manager” with the term “coach” is not a mere utilization of trendy terminology; rather, it reflects a true change in the philosophy of leadership.
Each coach in CTS, rather than giving orders and handing out assignments, assists his or her teams in setting and achieving their goals. The coach generally allows teams to take their own lead, trusting them to work well and responsibly, and stepping in only to give the occasional push in the right direction.

The director plays the same role with the coaches as the coaches do with the teams. It is the director’s task to assist them in whatever way she can, particularly in the setting and achieving of team goals. The director also has another role, and a crucial one at that: she is the liaison between the cybermanagement teams of her department and the bureaucracy of the university administration. Whereas the responsibility for achieving goals is shifted from the individual to the team in the organization of CTS, the director must, in accordance with the structure of the rest of the university, bear sole responsibility for the performance of her entire department. As a result, the CTS director must exert a higher degree of control than the coaches within the department. She has final authority in ensuring compliance with university policy and procedural matters, must approve all expenditures of funds as required by State law, and otherwise satisfy the all requirements of the director’s position within the traditional structure.

The flattening of the managerial strata ensures that the lines of communication remain wide open between all levels. Since the director works closely with everyone on her staff, she is able to take their needs and concerns into consideration when charting the course the department is to take.

**Advantages of Cybermanagement**

**Employees**

One of the most immediate and important advantages of this system is that of employee satisfaction. As has been much argued by the proponents of the power team approach, employees who have a greater say in their jobs tend to be more satisfied, therefore more productive. By implementing a team structure, the old emphasis on specialized tasks (the “cogs-in-the-machine” method) is swept away. Each employee, capable of contributing in a variety of ways, is valued for his or her individual talents and abilities rather than for performing a single task. This leads to a greater degree of job satisfaction and a desire to contribute even more to the benefit of the team.

Vigorous cross-training produces a number of positive results. First and foremost it helps team members to come to a better understanding of one another’s duties, responsibilities and needs. Secondly, it provides a ready source of back-up support for whenever one or more team members is absent. Third, it helps individuals to expand their own horizons by encouraging them to try their hand at new and different skills. An individual originally hired to file paperwork, for example, might turn out to be a talented trainer, and provide valuable insights to those already serving in this capacity as well as filling in upon another trainer’s absence.

Employees who are satisfied with their jobs and who are capable of serving a variety of functions tend, quite naturally, to be more productive. When the element of pride in one’s performance is an active element in the workplace, productivity and innovation cannot help but to increase. Employees trusted to take initiative and to act as independent thinkers will come to find their jobs more fulfilling. Everyone can see for themselves what the ultimate goals of the department are, and the importance of their own roles “in the big picture.” Attitudes of complacency are replaced with a renewed interest in providing a quality result.

The team members of CTS, since the introduction of cybermanagement, have shown a dramatic increase in all of these areas. There exists an enthusiasm among the staff, a perception that they really do make a difference in the lives of those around them. It is not unusual to see employees within the department investing their spare time and even their own money in the interests of improving the quality of customer
service. Another point to consider is that in the past two years the employee turnover rate at CTS has come to a near total halt, despite the fact that budget constraints prevent the department from offering salary levels comparable to those of the corporate world. Simply put, the staff members of CTS have really begun to enjoy their jobs.

Agency
The potential benefits to the university are enormous. Multiskilled, highly trained team members can tackle many problems which would once have required the hiring of new personnel or the contracting of outside sources. The open flow of information, ideas, and insights though the department (and to other departments as well) means a more effective utilization of resources, both human and physical. Essentially, the university may reap the benefits of the power team approach without the need for an institution-wide reorganization.

A university with an effective IT support department has a much greater opportunity for technological advancement. This kind of success serves as a chain reaction, as the implementation of one project encourages the planning and development of still others. With a support structure prepared to evolve and adapt to changing technologies and user needs, a university can take increasing bolder and more innovative steps in preparing students for the 21st century.

Customers
Although so much emphasis has been placed in this article on how cybermanagement benefits the employees who work within it, the technology user community is, of course, the chief beneficiary of all of these improvements. The redistribution of knowledge and support capabilities and the boost in support staff morale and efficiency have made quality technical support service all the more accessible to the customer. Even though the number of available services has increased significantly, the average time required to resolve user requests has decreased. Nine out of ten calls placed to the HELP Desk are resolved at the time the call is placed, and surveys indicate that the level of customer satisfaction is at an all-time high. In the end, there can be no more persuasive argument for the principles of cybermanagement than this.

Does It Work?
Like any structure devised to help people work together more effectively, the success of cybermanagement will vary from one organization to another. It was not intended to serve as a universal solution to the problems of dealing with bureaucratic constraints, nor to provide a foolproof plan for securing employee and customer satisfaction. It was designed to serve the needs of a particular department, in a particular university, and to thrive in this particular environment. In that capacity it has worked very well indeed. A recent employee satisfaction survey has indicated that approval ratings for this new structure reach into the 90% range. Contrary to the growing trends of the corporate world, CTS employees trust their management and feel that their own individual contributions are respected and valued.

On the administrative and customer levels, the structure is transparent. The results, however, are obvious. The average turn-around time for calls placed to the HELP Desk has, in the past two years, been reduced from 45 days to 3 days, despite a significant increase in the number of calls. This is not theory, but indisputable fact. Does cybermanagement work? Let the numbers speak for themselves.

The fact that this structure was designed for a particular environment should not stop other organizations from putting its principles into effect in their own structures. After all, cybermanagement’s greatest strength lies in its flexibility. Administered with diligence and attention to the ultimate goal of customer satisfaction, this structure empowers the individual components of an organization to adjust and adapt to rapidly changing environments. Another extremely important aspect to cybermanagement is that very little is set in stone. Even though it was designed deliberately to stand the test of time and adjust to the needs of a rapidly-changing market, no structure is ever beyond improvement. Therefore a constant striving for perfection, a drive to provide the campus with ever better and more innovative services is forever present within the collective mindset in CTS.

The success of cybermanagement within the Customer Technology Services department of the University of Texas at El Paso has been nothing less than spectacular. The projects which have been completed in the past two years, projects which would have been virtually impossible under the constraints of the pre-existing bureaucracy, have enhanced the educational opportunities of the university's students, streamlined administrative processes, increased the level of communication on campus, and paved the way for the
introduction of new and emerging technologies.
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<th>Under the Traditional Bureaucracy</th>
<th>Under Cybermanagement</th>
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<td>It was simply impossible for some employees ever to be out of the office for any length of time, even for vacation or sick leave. No one else could answer questions in their field or resolve certain commonly-occurring problems in their absence.</td>
<td>Knowledge and access once restricted to a single person have been distributed throughout the department. Even when the “expert” in a particular field is out of the office, the vast majority of questions can be answered by other available team members.</td>
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<td>Customers needing support in various mainframe applications had to call three or four different offices in order to request a password reset or receive answers to simple questions.</td>
<td>The members of the HELP Desk team have been sufficiently trained to answer most user questions regarding campus mainframe applications, and have authority to reset passwords as needed. Customers have only to make one call.</td>
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<td>In crisis situations, when managers could not be contacted, support personnel were fearful of making important decisions.</td>
<td>Team members own their jobs, and are trusted to make important decisions which relate to their spheres of responsibility.</td>
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<td>Customers calling with simple questions about basic software applications were sometimes turned away because no one on the staff knew anything about the software.</td>
<td>The HELP Desk has on hand a list of software experts who may be consulted in the event of a user question which cannot be answered immediately. Users may even receive assistance with some applications which are not officially supported by CTS.</td>
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<td>A person with a family or medical emergency could not count on their job responsibilities being taken care of during an extended absence.</td>
<td>In the case of a prolonged absence, other team members adjust their schedules to compensate. Personnel from other teams can also be called in for back-up support.</td>
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Success Story

This represents but a partial list of the projects that Customer Technology Services has completed in the past two years. The tremendous flow of energy and creativity involved in the planning and implementation of these projects would likely never have been possible before the reengineering of the department’s structure to the principles of cybermanagement.

- Campuswide implementation of new E-mail system.
- Opening of a new student computer lab.
- Introduction of Internet clients in student computer labs.
- Opening of a centralized IT training center for faculty and staff.
- Opening of The Technology Corner, an IT purchasing information and assistance facility.
- Introduction of several electronic administration documents to improve information accessibility, decrease processing time, and decrease paper consumption.
- Publication of a revised and improved faculty/staff directory, and migration of directory information to the World Wide Web.
- Development of a Records Management Center in accordance with State Law.
- Extension of new E-mail system to the student body.
- Completion of CTS reengineering.
- Extension of HELP Desk support to the student body.
- Revision of faculty/staff directory.
- Introduction of new courses at the IT training facility.
- Incorporation of Client Services into CTS.