

Duke University's IT Staff Broadbanding Initiative

At Duke University a team made up of human resources and information technology (IT) staff working with consultants was challenged to identify a recognition and rewards strategy that would improve Duke's ability to recruit and retain IT staff, establish a technical career path for talented IT staff, and create a flexible and competitive IT compensation program. This article describes the resulting broadbanding initiative and its initial implementation.

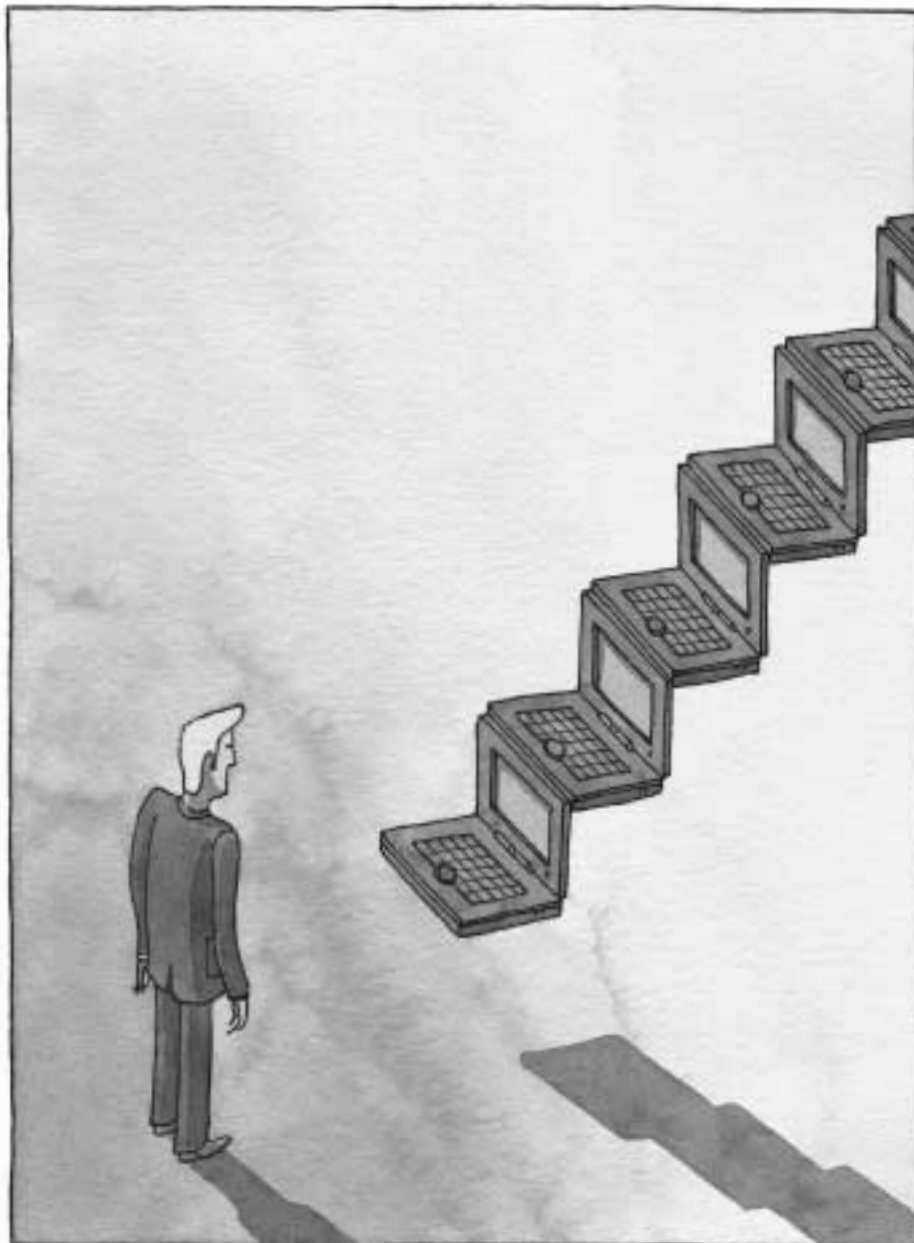
by **Angel N. Dronsfield**

Early in 1997 Duke University was experiencing unusually high turnover in information technology (IT) positions. At that time Duke was in the process of replacing several of its major administrative systems under tight deadlines as well as preparing for the year 2000. Furthermore, because of stiff competition in the regional and national marketplace, Duke was having difficulty recruiting top IT talent, both in the central IT organizations and in distributed IT positions.

With the Research Triangle Park literally in Duke's backyard, the chief infor-

mation officer (CIO) of the university and the Duke Health System CIO realized that Duke would never be able to compete for IT staff on the basis of salary alone. Thus they began discussions with senior administration about overhauling the entire human resources system for IT employees. Since these executive leaders fully understood the strategic importance of IT to Duke's future, the CIOs were successful in gaining approval to take corrective action.

As the first step of this project, Duke contracted with Sibson and Company to conduct an initial review of the uni-



versity's existing compensation program. This effort was led jointly by the Office of Information Technology (OIT), Medical Center Information Systems (MCIS), and Human Resources (HR). While the primary analytical focus was an assessment of the competitiveness of the IT compensation program, the review also included discussion with senior IT leadership about the compensation program overall, that is, its current effectiveness in recruiting, motivating, and retaining IT professionals and potential improvements that might be made.

One of the critical observations from this review was that although Duke's IT compensation levels were significantly below competitive rates, simply adjusting salaries to market would be only a temporary and partial solution to what had been identified as systemic issues. While many salary adjustments were made early in 1998 to bring some immediate relief to the turnover problem, senior leadership recognized the need to address the broader underlying human resources and rewards issues.

As a result, Duke committed to reviewing and redesigning a tailored

approach to recognizing and rewarding IT staff to improve recruitment and retention. Once again utilizing the services of Sibson and Company, the design phase of the effort was undertaken in July of 1998 by three key groups:

- *Steering Committee*, composed of the vice provost for information technology and CIO, the vice president for human resources, and the CIO of the Health System. This group provided direction and senior leadership for the project and served as the ultimate approval authority.
- *Design Team*, composed of three members from OIT, three from MCIS, two from HR, and two from Sibson and Company. The purpose of this team was to carry out the charge from the steering committee to redesign the recognition and rewards system for IT employees at Duke University.
- *Resource Group*, composed of numerous IT directors and managers across the university and the Health System. The role of this group was to provide input to the design team regarding what they felt should be addressed to make the new system successful and to serve as a sounding board to test ideas concurrent with design efforts.

The design team committed to meeting every other week for four hours. Although the resource group never actually met as a group, its members agreed to be accessible for the design team members as needed.

If successful, the results of the design effort would be piloted initially in OIT and MCIS prior to broader deployment at Duke.

Design Phase

The design phase occurred over a five-month period through three processes: interviewing IT managers and focus groups, developing broadband roles and pay structure (described below), and testing design concepts with the

resource group and focus groups. The detailed design phase project schedule is presented in Table 1.

Business Case

Since they had acknowledged the strategic role IT would play in Duke's future, senior administration accepted the need to redesign the recognition system for IT positions. Nevertheless, the design team put together a business case for supporting its effort. They proposed that the purpose of a tailored recognition program for IT positions at Duke was to

- Support the recognition of IT's strategic role for Duke in the next several years.
- Create a system that recognizes the uniqueness of the human resource challenges related to IT professionals.
- Move Duke IT from a traditional system to a more contemporary one that is market focused, pays for the person rather than the job, and transforms HR's

role to advisory rather than rules based.

- Structurally address competitive compensation shortfalls that had historically resulted in Duke being below market for IT salaries.

Finally, as a result of the concept of paying for the person instead of the position, internal equity had to be redefined.

- Reduce regrettable turnover.
- Alleviate issues in recruiting truly first-class IT talent and address chronic open positions and short staffing on IT projects.
- Create a career path for technical positions that does not lead to management.
- Create career flexibility and opportunity

for advancement for IT professionals.

- Modify the current system that limits a manager's flexibility to hire and reward IT professionals.
- Redefine Duke's value proposition (what Duke can offer to employees) in terms that appeal to IT professionals.

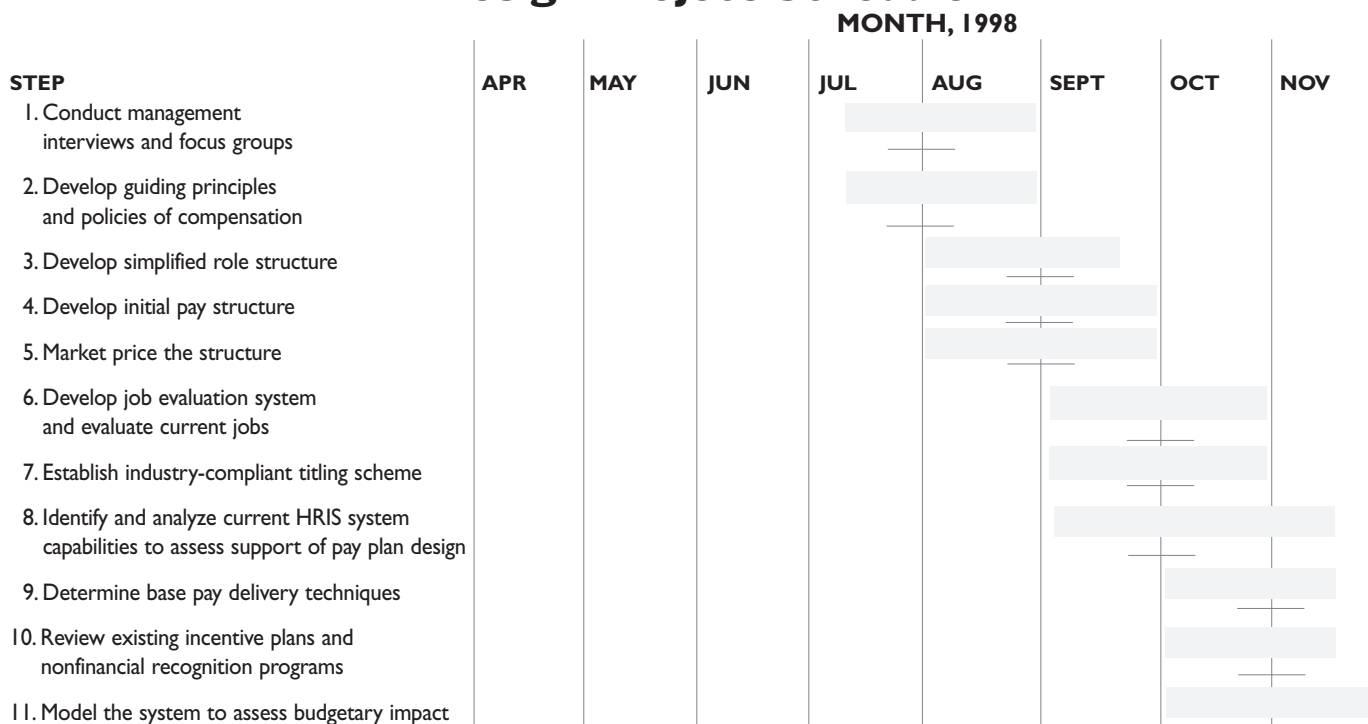
Measures of Success

Following the development of the business case, the design team established the following outcomes as measures of success:

- Reduction in regrettable turnover
- Development and demonstration of critical IT competencies
- Improved recruiting and hiring process as evidenced by decreased time required to fill open positions and an increased pool of qualified and interested candidates
- Reduction in management time spent on redundant administrative tasks
- Transition of the role of HR from rules-based gatekeeping to consultation

Table 1

Design Project Schedule



Guiding Principles

To ensure that the final design accomplished the objectives of the business case, the design team developed the following guiding principles:

- We will define skills and competencies required for organizational success.
- We will align employee skills and competencies with defined organizational needs.
- Recognizing the unique dynamics of the knowledge worker, we will emphasize paying for the person rather than the position and stress other recognition through nonfinancial methods.
- Recognizing the financial limitations of the institution, we will balance financial and nonfinancial rewards to provide competitive total rewards and recognition for IT employees.
- We will streamline internal processes and increase management discretion and accountability in employee rewards and development decisions.
- We will increase internal and external recruiting effectiveness through focus on core aptitudes and competencies (as opposed to job or task-based job descriptions) and encourage lateral moves to develop new competencies and skills.
- We will facilitate self-directed career planning through open communication of classifications, bands, competencies, and achievements/rewards.
- We will emphasize the competitive advantage of Duke IT through effective deployment of nonfinancial rewards.
- We will improve the impact of performance management systems through strengthening the relationship of performance appraisals to salary increases.

Recognition Strategy

The overall objective of the recognition strategy was to support the distinct needs of the technology function within multiple areas of the Duke systems. As a

comparative framework, the design team used both national and Research Triangle Park IT employers and targeted salary levels around the 50th percentile of the local IT market. Following industry trends, the desired pay mix was pri-

One key challenge facing the design team was to keep the conversion to the new recognition system budget neutral.

marily base salary with significant opportunities for variable and premium pay based upon both exemplary performance and project objectives.

To support the need to recognize top performers, the design team recommended strongly that all bonuses (spot and project) be openly communicated and not simply included as an additional

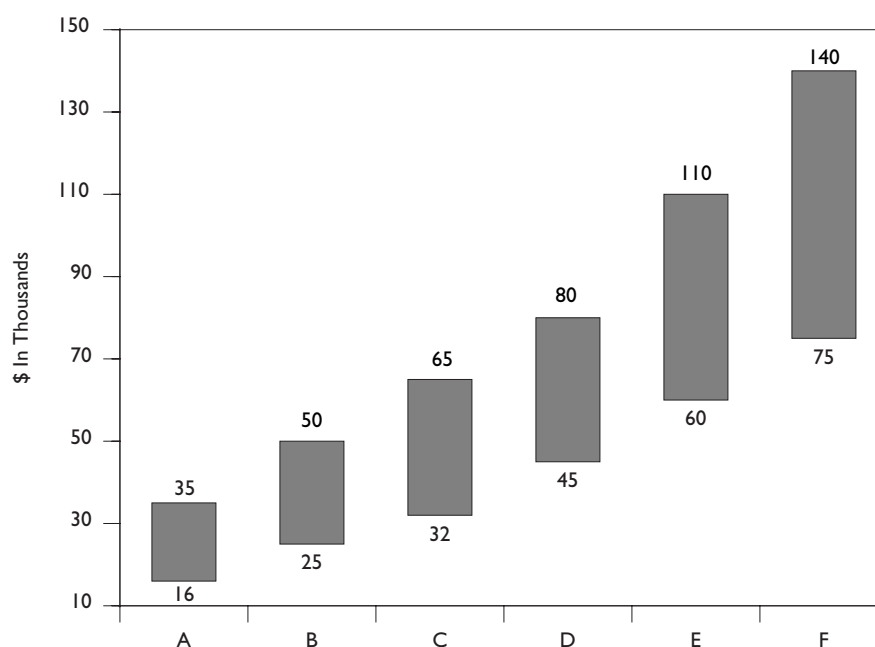
amount in the regular paycheck. The philosophy of the team was to share the compensation policy and practice information with employees to ensure they have a full understanding of the rewards programs and associated decisions and, further, to have the rewards serve as incentives for retention and performance.

Finally, as a result of the concept of paying for the person instead of the position, internal equity had to be redefined. Rather than comparing salaries of staff members with like titles, the new system would require managers to compare salaries of employees with similar demonstrated competencies. Pay diversity would be commensurate with identifiable skills and competencies.

One key challenge facing the design team was to keep the conversion to the new recognition system budget neutral. While it would be acceptable to have expenses increase in the future, the design of the new system had to be such that it could be *initially* implemented with no bottom line impact. Therefore, it was determined early in the design phase that

Table 2

What Do the Salary Bands Look Like?



no pay adjustments would result from converting to the new system.

Employee Value Proposition

As mentioned in the business case, the design team felt the need to redefine the employee value proposition (EVP) for IT employees at Duke. Through a series of interviews with “exemplars” and IT managers, team members began to see a couple of themes that explained much of the retention success Duke had already accomplished. These interviews were very enlightening and proved to be a critical success factor for the design phase. The new Duke EVP for IT staff (see sidebar below) is currently being used by HR as a recruiting tool.

System Design

By the end of December 1998 the design of the new system was complete. The design team presented their work to the steering committee, who then requested a detailed implementation plan. At the end of January 1999, following presentations to several senior administrators and standing committees, the design team received approval to

proceed with the implementation of the new system as a pilot in OIT and MCIS.

The structure of the new system is a broadbanding approach¹ to positions, career progression, and compensation (see Table 2). The system is made up of two career tracks—management and technical—which means that it is no

As part of the new system, emphasis was placed on the use of nonfinancial rewards.

longer necessary to reward technical competence and performance by promotion to management. Management will have greater flexibility to recognize significant professional development, as it supports a business need, with in-band salary increases since progression is not restricted based on position or track.

Additionally employees may move from one track to another throughout their IT career at Duke, based on business need. Sixteen salary grades in the old IT job classification system have been replaced by six broad career bands to allow increased flexibility in recognizing key skills and competencies. In the old system there were approximately 90 IT job titles, which have been reduced to 15 in order to emphasize common core competencies and de-emphasize the differences between departmental “silos” and roles. The new titles are shown in Table 3.

In determining the distinction between bands, the design team focused on core competencies required for successful IT performance in an organizational role and included expectations of increased breadth or scope with higher bands. Table 4 contains a high-level summary of the competencies of each band. The factors used to define competencies in each band were:

- Professional knowledge
- Organizational/project accountability
- Interpersonal/leadership

Additionally, for bands C and above, management factors were included for assessing competencies of employees in the management track. Tables 5 and 6 detail the competencies for each factor within each band.

As part of the new system, emphasis was placed on the use of nonfinancial rewards. As the design team discovered during initial interviews with top IT staff members, providing nonfinancial rewards such as flexible hours, computer lines at home, “success” lunches, and so forth is a very effective recognition strategy. Also many of the nonfinancial rewards already being utilized by management served to further reinforce the EVP. Therefore, considerable effort was put into this aspect of the design of the new program, especially given the tight budget constraints at the university and the fact that a dollar spent on nonfinan-

Duke University Employee Value Proposition for IT Employees

In exchange for talent and commitment, Duke provides to information technology employees:

- ✓ Opportunities to participate in a variety of projects, types of work, and world-class technologies
- ✓ Involvement in assignments that challenge team members to higher levels of critical thinking and performance
- ✓ Involvement in assignments that have meaningful impact across the Duke organization, the community, and/or industry
- ✓ An environment that fosters the development and recognition of individual capabilities
- ✓ A collegial, diverse, and professional environment in a pleasant social setting for a nationally respected organization
- ✓ Competitive total compensation package (pay and benefits)

cial rewards has a lot more impact on employee morale than the equivalent amount spent on salaries.

One other key component to the design of the new system was the creation of the Technical Resource Group (TRG). With the transformed role of HR from gatekeeper to advisor, senior administration at Duke felt the new system should contain a mechanism for ensuring its integrity. The TRG concept was developed to address this concern. The role of the TRG was to provide guidance, market data, and technical expertise to areas of the university and Health System outside the central IT organizations. The TRG would be a rotating group of six to eight technical "exemplars" representing the CIOs on matters pertaining to the new system. While using the TRG would be voluntary, the design team felt this group's advice would be highly sought after, based on initial interviews with IT representatives outside the central organizations. In those interviews, non-IT managers who managed IT staff had actually requested such a service to help them improve their success in recruiting and retaining IT staff.

Implementation Phase

After receiving approval to proceed, the design team compiled an implementation plan, which was broken down into four major categories:

- Competencies and slotting
- Systems and procedures
- Communications and training
- Approvals and testing

Responsibility for each category was assigned to a subteam of two or three individuals. A comprehensive timeline was developed that linked dependent steps between the categories and highlighted critical dates. The initial target date for implementation was August 1, but due to several competing priorities in the IT areas, critical dates were

missed. A new target go-live date of November 1 was established.

Soon after completing the implementation plan, a few new members joined the team, which was then renamed the implementation team. The new members came from the recruitment office and other areas of Duke that would likely be implementing the new system after the pilot phase.

Once the implementation phase began, the team recognized that the need for contact with the steering committee would greatly increase as critical steps were taken and significant decisions were made. Because of the already tight schedules of the steering committee members, an oversight committee, referred to as the Broadbanding Oversight Committee (BOC), was formed to act on behalf of the steering committee. The BOC was comprised of one representative from HR and an implementation team member and associate CIO each from OIT and MCIS. This group met weekly for one hour to approve slotting results and handle other sensitive implementation issues.

Competency Assessment and Slotting

One of the first tasks of the implementation team was to develop a tool to assist managers with assessing demonstrated competencies of their employees. Since band assignment, or salary grade, would now be based on demonstrated competencies rather than job tasks, managers would have to assess each current IT staff member's demonstrated competencies. The tools that were developed to facilitate this process became known as slotting worksheets, and the process of band assignment became known as slotting.

Once the worksheets for each band were completed, all directors, managers, and supervisors in OIT and MCIS received an overview of the system and were trained on the slotting process. The slotting process included four steps:

1. Receive initial training on the new system and slotting process (in small groups).
2. Attend the slotting session with his or her direct supervisor, possibly his or her direct manager, a member of the implementation team, and possibly a peer.

Table 3

Fifteen New Titles

TECHNICAL TRACK	BAND	MANAGEMENT TRACK
Senior Consultant, IT	F	Associate CIO Executive Director, IT Senior Director, IT
Consultant, IT	E	Director, IT Associate Director, IT Assistant Director, IT
Senior Analyst, IT	D	Senior Manager, IT
Analyst, IT	C	Manager, IT Assistant Manager, IT
Specialist, IT	B	
Technician, IT	A	

Table 4

Application of Competencies

A	B	C	D	E	F
Operate and maintain current processes and systems	Operate and maintain current processes and systems; interpret and modify data, systems, and information	Interpret, modify, analyze, and design systems, data, and information	Analyze, design, and research systems and processes Revise or edit work of others Coordinate projects or initiatives	Integrate, manage, and plan resources to achieve strategic goals of a functional area or within a specific discipline Negotiate and synthesize ideas and resources	Integrate, direct plan/strategize, negotiate, synthesize, and appropriate (funds) to achieve and effect the strategic goals of the organization

Management track positions begin in band C.

3. Receive approval of the initial slotting from the Broadbanding Oversight Committee through the implementation team member (subject to final approval from HR).

4. Communicate results of slotting process with direct reports individually.

This cascading process continued until all IT employees in OIT and MCIS were slotted. Note, however, that for all nonsupervisory positions, step 4 above did not occur until those employees were educated on the new system and final approval of all slottings was received from HR (in November).

The recommended slotting process included peer interaction. This proved to be a very valuable aspect of the process in that the discussions between the manager and his or her peers often proved enlightening for everyone. Additionally an implementation team member attended all slotting sessions to ensure compliance with the established process as well as consistency between managers. After slotting sessions were completed, the slotting manager would forward the results to the implementation team member for BOC approval. Since the BOC met weekly, issues or

problems that resulted from the slotting process were handled on a timely basis.

By early October all IT employees in OIT and MCIS had been slotted by their manager or supervisor. Members of the implementation team compiled a comprehensive list of all slotting results and included other employee data such as current job title and grade, age, race, gender, years of IT experience, and IT-related education and training. All of these factors were used by HR to conduct bias testing for adverse impact of the new system. The results of this testing, which was completed in November, showed that the process used to slot employees into the new broadbanding system did not create any bias.

Systems and Procedures

The subteam working on this category of the implementation plan was made up solely of HR staff. Their charge was to assess changes required to Duke's payroll, benefits, and other HR systems due to the new broadbanding recognition program and to ensure that such changes were effected on schedule. Additionally this subteam met with all management center budget directors to

help them understand the nuances of the system and determine any reporting needs they might have as a result of the broadbanding implementation.

Communications and Training

The primary responsibility of the communications and training subteam was to create and maintain all communications and training materials and documentation. Members of this team primarily had backgrounds in HR or training. Since there were several iterations of communications and multiple audiences for whom the intended message was slightly different, this group created various documents and presentations throughout the implementation phase.

Perhaps the most critical document was the one that was used in mid-October to educate managers on the system so that they could subsequently educate their staff. Given the short timeframe from slotting completion in early October to live implementation in November, it was crucial that the education document be both comprehensive and easy to understand. The BOC played a crucial role in finalizing and editing the docu-

Table 5

Band Descriptions

Competencies	A	B	C	D	E	F
Professional Knowledge	• Basic knowledge of a specific function	• Operational knowledge of multiple functions	• Advanced knowledge & proven application of knowledge within a specific discipline (may include applicable certification)	• Expert knowledge of a specific discipline or functional area • Exposure to external industry and market technical intelligence	• Expert knowledge of a specific discipline or functional area with a significant understanding or breadth across other IT disciplines • Applies understanding of organization's strategic direction • Incorporates external industry/market technical intelligence	• Broad base of knowledge and experience in IT functions • Sets strategic direction for discipline/functional area • Applies knowledge of organization strategy to long-term technical direction of enterprise
Organizational/Project Accountability	• Ability to comprehend and follow instructions	• Performs routine/non-routine tasks that maintain computing equipment, services, and operations with minimal supervision	• Can independently complete complex tasks and portions of larger projects • Can identify internal resources to build project team capabilities	• Can perform and coordinate simple to complex projects with directions • Optimizes internal resources to maximize team capabilities	• Directs and coordinates complex projects with minimal guidance • Engages internal and external resources to maximize organizational capabilities	• Provides divisional leadership, vision, and oversight for complex enterprise projects • Establishes long-term plans to ensure appropriate skills for future projects
Interpersonal/Leadership	• Ability to communicate effectively with co-workers and supervisors • Can function within a team environment	• May lead day-to-day efforts of a small technical group or lead project sub-team to accomplish defined tasks • Effectively communicates and functions within a team environment • Educates others on specific technology and/or procedures	• May lead projects • Ability to function in a cross-team environment	• Leads peers to resolve complex issues consistent with division/organization goals • Serves as technical leader/advisor for discipline in cross-functional teams • Effectively communicates specific IT issues/solutions to client	• Directs cross-functional teams to resolve complex issues • Serves as liaison with customers, vendors, and administration • Through technical expertise, thoughtful leadership, and effective persuasion, champions change towards strategic direction of organization within technical or project parameters (change agent)	• Resolves interdepartmental issues involving IT • Drives strategic goals through people management and leadership skills • Actively effects organization-wide technical change through effective persuasion

Table 6

Band Descriptions for Management Track Only

A	B	C	D	E	F
Not Applicable	Not Applicable	- Aligns objectives for the unit with functional or project goals and objectives. Develops buy-in and employee commitment to the goals. - Effectively utilizes resources to achieve goals and objectives of the department - Effectively manages performance and develops employees - Utilizes institutional recognition and rewards system to effectively differentiate and address performance - Creates an environment that promotes and recognizes diversity - Creates a non-hostile environment	- Aligns objectives for the department with functional, organizational, or project goals and objectives. Develops buy-in and employee commitment to the goals. - Effectively utilizes resources to achieve goals and objectives of the department - Effectively manages staffs' talents and capabilities through feedback and resource allocation - Utilizes institutional recognition and rewards system to effectively differentiate and address performance - Creates an environment that promotes and recognizes diversity - Creates a non-hostile environment	- Aligns objectives for department and division with strategic direction of organization, develops buy-in and employee commitment to goals - Effectively utilizes resources to achieve goals and objectives of department - Effectively manages and develops staffs' talents and capabilities through feedback and resource allocation - Utilizes institutional recognition and rewards system to effectively differentiate and address performance - Creates an environment that promotes and recognizes diversity - Creates a non-hostile environment	- Aligns objectives for the division with strategic direction of organization, develops buy-in and employee commitment to goals - Effectively utilizes resources to achieve goals and objectives of department - Effectively manages and develops staffs' talents and capabilities through feedback and resource allocation - Utilizes institutional recognition and rewards system to effectively differentiate and address performance - Creates an environment that promotes and recognizes diversity - Creates a non-hostile environment

ment and paid careful attention to how new concepts were presented and to the wording of specific details.

Since most nonsupervisory employees had minimal exposure to the specifics of the new system, the BOC wanted to minimize staff anxiety by ensuring the message the managers delivered was as clear and concise as possible. Each manager was given a PowerPoint presentation with scripted notes to use when presenting the new system to his or her staff in a group meeting. Also a member of the BOC was present during each of the meetings to ensure consistent message delivery and to respond to any questions the manager might not be able to answer.

Approvals and Testing

Although the implementation plan did not refer to it as such, the BOC eventually assumed the responsibility of approvals and testing. The primary function of the BOC in this role was to approve overall system concepts, initial slotting results, communications pieces, and documentation.

During the last week of October and the first few weeks of November the managers within OIT and MCIS reviewed the education materials they received and passed the information along to their staff. Also during this time they attended a detailed training session that familiarized them with all the operational and procedural aspects

of the system. At that session they received a desktop reference guide intended to be the all-inclusive documentation for the system. Following the detailed training and after receiving final slotting approval from HR, the managers met one on one with each of their IT staff members to discuss individual slotting results. Although the system was effective November 1, employees did not see any immediate change other than the title change on their November paycheck.

Assessment

In general, the broadbanding implementation was received well by IT employees. The rush of communica-

tions in November made it difficult at first to assess individual reactions, but three months later only minimal grumbling had surfaced. A few employees expressed concern over the homogeneous titling scheme since in the past titles were used to differentiate contribution and status, but to date no major complaints have been lodged.

As intended, the November 1 conversion date was much ado about nothing since, for most employees, only a title change occurred at that time. Only a handful of the 280 staff members in OIT and MCIS received any pay adjustment, with those being made merely to bring employees' salaries to the minimum of their new band. Since it was stated from the outset that the purpose of this implementation was to address systemic problems, not individual salary issues, employees were not anticipating any pay change on November 1. A few employees moved from management positions into the technical track, and vice versa, but for the majority of the staff, there was no change in responsibility as a result of implementation.

The emphasis was, and continues to be, the *possibilities and flexibility* of the new system rather than the *conversion* to the new system. It is this aspect of the broadbanding system that makes both managers and employees very optimistic. Managers are excited about the latitude they now have with respect to human resource issues (within budget constraints), the reduced red tape of personnel changes, and their new role in employee development decisions. Feedback from employees has focused on the separation of management and technical tracks, the chance they have to impact their own career development, and the opportunity to be rewarded and recognized in various ways faster and easier than before.

As of February 1, 2000, three personnel transactions had been processed for IT employees and included a mix of

track and title changes as well as pay adjustments. The biggest difference noted from previous transactions is the speed and ease with which these changes occurred. Since responsibility and accountability have been trans-

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ferred from HR to managers, personnel changes can be effected very quickly (in less than a week) with minimal paperwork required. For both the manager and employee, this quick turnaround is one of the visible successes of the new system. With the new system in place, managers can hire desired candidates faster, respond more quickly to competitive offers made to current staff members, and use their discretion to recognize outstanding performance in a timely manner with pay or noncompensatory awards (within budgetary constraints). Despite the fact that this implementation came with no new funding to address pay issues, managers now have the flexibility of converting budgeted nonsalary dollars to reward and recognize staff.

The biggest challenge ahead for OIT and MCIS is to manage the cultural change resulting from the implementation of this new system. With accountability for pay and development decisions transferred from HR to management, IT managers require a different kind of training and skill. A plan is currently under way with HR to develop a new management training curriculum for staff responsible for managing others in a broadbanded environment. This curriculum, which will pro-

vide managers with the human resources training needed to function effectively in the new environment, is expected to be completed by the summer of 2000. Additionally Duke has contracted with Sibson and Company to develop a competency-based performance management tool that will align the broadbanding concepts with pay for performance. The target date for the completion of this tool is March 2000.

Other residual implementation items include developing competency-based job descriptions, including management reporting criteria in Duke's HR and general ledger systems; developing guidelines for awarding spot bonuses; and finalizing the list of IT disciplines for use in gathering market salary data. The implementation team continues to meet monthly to work on these items.

As stated from the outset, the implementation in OIT and MCIS was intended to be a pilot for broadbanding at Duke. With phase one successfully completed, the CIOs have been given approval to begin phase two, which will include the IT employees in the library, two graduate schools, and a large clinical research division of the Health System. The scheduled time period for implementing broadbanding in these areas is approximately six months, with the projects running concurrently.

Endnote:

1. Broadbanding is a type of pay structure that is broader and flatter than traditional pay systems, characterized by wider salary ranges and fewer job titles and vertical levels.

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