



# Communicate, Collaborate, Coordinate, Decide: How IT Achieves Strategic Leadership

by Jeffrey Stamps and Jessica Lipnack

## FOUR ORGANIZATIONAL CAPABILITIES

IT has its unique wisdom to contribute to the strategic conversation of organizations. But what gives IT real strategic leadership is its ability to tap and extend the wisdom of the organization as a whole.

As creator and sustainer of the digital apparatus that powers the Information Age, IT is in a privileged position to understand the organization's "big picture." More significantly, IT's infrastructure touches everyone many times daily (and nightly). It provides universal tools that scale from each small individual to the whole organization and beyond to its external relationships. IT's potential is huge, but it has much to do to realize its full strategic leadership.

If IT's ultimate role is to co-lead the organization, the services it delivers need to map to a model of organizational leadership that includes everyone. We believe that IT can lead large-scale organizations in achieving world-class performance by providing the foundation for four capabilities that together generate the "wisdom of the whole." IT's role at the senior table is to promote and deliver such key strategic capabilities, ones that reach across the organization. By doing so, IT enables the other operating and service components to be more efficient and effective in meeting their goals and achieving a synergy of shared organizational purpose. The four strategic capabilities needed today are:

- 1. Communication.** Everyone communicates. This continuously changing competency — enhanced by new technology — is the foundation of a 21st-century, data-wise, knowledge-based learning organization. But it is only the foundation.
- 2. Collaboration.** The ability to collaborate, to work together with others, is finally on every CIO's list of hot topics. Why? Because in the blink of an eye, collaboration has gone virtual. There is wide demand now, across organizations of all kinds, for better tools to help people manage and work more effectively in teams and communities across distance and time.

This virtual collaborative capability continues to accelerate thanks to increasingly costly and hassle-ridden travel. The good news is that once people master new tools and behaviors, they can function in virtual teams at higher levels of performance than they could in traditional face-to-face teams functioning without the benefit of much technology. Two major reasons are the anywhere/anytime abilities to grow a persisting shared team memory and to involve more — and more diverse — people in the team's work, which enables more innovation.<sup>1</sup>

- 3. Coordination.** Communication and collaboration are not sufficient for today's large-scale challenge of coordinating. Today executives must lead multilevel organizations of hundreds to thousands of people in proliferating networks of relationships *far outside their visual range*. To lead large-scale virtual organizations, where outcomes rely on far-flung chains of responsibility and networks of interdependencies, leaders must understand how to coordinate initiatives and guide suborganizations that they often do not control. IT can provide maps to this invisible organizational territory, help management to navigate it, and initiate improvements in organizational design at all levels. A common map that makes organizational elements and the links between them transparent enables everyone in the network to coordinate more effectively in line with the overall strategy.
- 4. Decision making.** In the traditional hierarchy, data, information, and knowledge flow up and feed the processes that allow managers at every level to decide. With final judgments made and directions agreed, "orders" and guidance flow back down to the organization. In the end, however, the many local decisions made in all the interconnected small teams working at all levels come together to make up the decision-making whole. Thus, the smarter everyone is about the larger context of their work, the better they will be in making good local, front-line, tactical decisions supported by enhanced executive strategic

decision making. The overall result is likely to be higher organizational performance.

Conventional IT, meaning the way IT departments regard their core purpose, traditionally focuses on the first of these four capabilities. Albeit astonishingly successful as an enabler of communication, IT will have to extend its mission. To be truly strategic, IT needs to make it easy for leaders throughout the organization to also collaborate, coordinate, and decide.

### Communication: From Technology to Services

How quickly people get used to new ways of communicating! With Web 2.0, for the first time in the information revolution, the consumer market is ahead of the enterprise market. People now expect services inside organizations comparable to those they use outside. Indeed, IT often finds itself fending off rogue installations that the “tech people” have yet to consider, instant messaging (IM) being a prime example. When IT departments have delayed approving IM, enthusiastic users have found their own workarounds — even if it means logging into Facebook or Gchat to use this valuable utility.

Many IT organizations have moved to seeing their larger role as providing “information management,” a service-oriented model. In this operating view, technologies lie below the visible surface, constantly changing, sometimes used in multiple services, while the support focus is on what the “customer” wants and needs.

A comprehensive view of IM sees customer needs at four distinct scales within an enterprise: individual

people, teams, communities, and organizations. All are customers for different aspects of IT’s full menu of services. These multiscale services comprise IT’s essential contribution to collaboration, coordination, and decision making across the whole organizational network.

In a recent project with the US Army’s Battle Command Knowledge System (BCKS), we helped develop a picture (see Figure 1) of existing or embryonic services available to the Army, grouping those services by the populations they serve.<sup>2</sup> Many of these capabilities reach — or are projected to reach — across many boundaries to the Army’s partners in the larger complex world of current joint military organizations. This complex set of relationships is often abbreviated as JIIM, which stands for Joint, Interagency, Intergovernmental, and Multinational engagements.

Figure 1 shows the array of technologies available in some form in many enterprises. What’s important here is the notion of IT customers at every scale. Traditional knowledge management (KM) is directed at the organizational level, as are learning services. Other services are directed to and served by individuals, such as FAQ and information-request services, joined by newer social-profile, expertise-location, and blog services. Discussion forums support cross-cutting communities of practice, while subsets develop domain expertise and programs that use workflow services. Finally, the now hot area of virtual team support includes the key technologies of synchronous conferencing (audio, video, Web) and asynchronous capabilities (repository, team room).

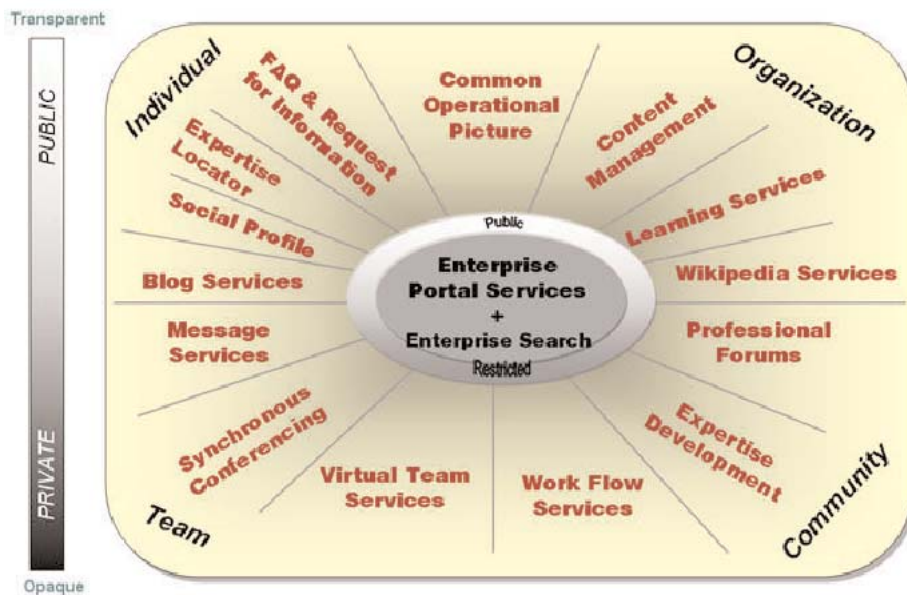


Figure 1 — Teams of Leaders communication wheel.

New communication capabilities enable new collaboration capabilities. Industrial Era technologies — bracketed by 15th-century printing and 20th-century broadcast television — predominantly enhanced one-way communication. These served efficient hierarchies and specialized bureaucracies. In the Information Era, interactive, anytime, anywhere technologies have emerged, been adopted, and are now forcing organizational restructuring. New forms of organization are emerging in the public and private sectors, most along network lines. IT can bring a natural network mindset to the senior table as companies repeatedly consider reorganizations large and small to meet the demands of change.

### Collaboration: Technology and Behaviors

Collaboration has two dynamics — technology and behaviors — that intertwine to successfully function in far-flung organizations.<sup>3</sup> However, in our view, it's only 10% technology; the other 90% is people.

Most global organizations are rapidly backing into the new mainstream world of virtual work, adopting technologies that collapse space and time while still using antiquated ideas and behavioral skills about meetings, teams, and organizations. Without new behaviors and organizational designs, the great potential of the new connective technologies remains largely fallow.

For example, IT may provide facilities for audio conference calls and Web conferencing (screen sharing), which are critical capabilities for virtual teams. While IT usually provides documentation and technology training, rarely does it also offer quick tips, education, and detailed practices on how to use the new facilities in a virtual team context. Meanwhile, organizations are crying out for education about:

- How to have good conference calls
- When and how to conduct virtual meetings
- How to lead virtual meetings
- How to coach others to have great meetings
- How to lead high-performing virtual teams

Thus, IT finds itself needing to partner with other organizations to provide the behavioral side of the collaboration equation.

The second key area of technology for virtual work is a repository for anytime/anywhere access. Since the dawn of the Internet, research has shown that virtual groups are far more likely to succeed when they have common work products and private places to store and retrieve them.<sup>4</sup> However, what's needed today is much more than content management in isolated team rooms.

Today's online workplaces and collaboration platforms present users with an awesome list of tool parts that they can configure and deploy — if only they had some way of knowing how to start from an empty room and turn it into a cleverly designed shared space.

Technology is best when shaped with an eye to human behavior. Team rooms can be tailored to incorporate the principles and practices of good teaming, such as clarifying and articulating purpose, providing transparency in order to build trust, and communicating with your larger network of relationships. New technologies can strengthen the adoption of new behaviors, and vice versa.

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In the Teams of Leaders project, the BCKS adopted our virtual team model — People, Purpose, Links, and Time<sup>5</sup> — for the design of both collaboration training and the online leader team rooms (see Figure 2). To reflect needs common to all teams, we tailored a team room template on Microsoft's SharePoint collaboration platform, which could be used as a starting point and a learning environment for best practices. As the teams inhabit the rooms, their "walls" become personalized and articulated as the teams spell out their specific purposes and discuss their processes.

When team rooms are tailored for consistency and ease of use across many groups, people can work in multiple teams and expect to find common information in the same places. We often compare setting consistent online areas for information related to people, purpose, and the like to being able to find the light switch in roughly the same place in a physical room. It may be outside the door or inside it, to the left or to the right, but you don't have to go on a treasure hunt each time you need to flip the switch, which is something like what people experience online right now. There is little consistency in the placement of information, and a lot of time evaporates as people hunt for the simplest "data." We are not the only ones calling for consistency in online team environments, to be sure, and the vendors have done their best to snatch what they regard as common elements and build them into their offerings. Unfortunately, most are feature-driven, which makes them technologically rich but, generally speaking, not driven by the way people actually work.



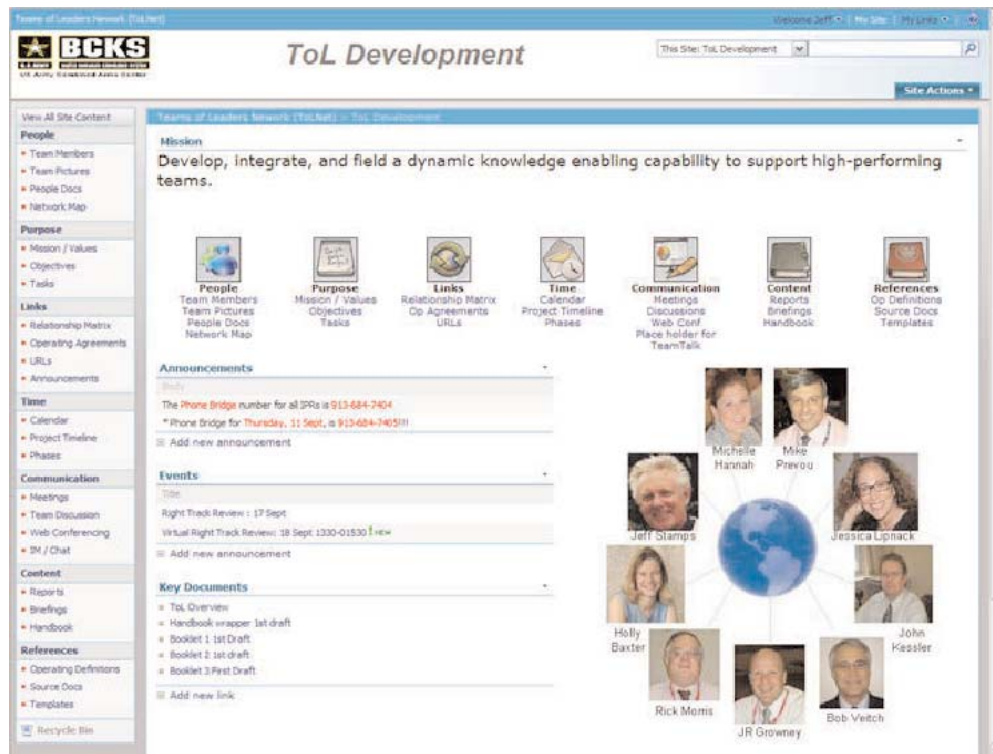


Figure 2 — BCKS room based on a virtual team model.

IT is typically short on behavioral skills and knowledge itself, so it needs to partner with another function, usually HR, to successfully establish the new behaviors required to achieve true organization-wide proficiency. Working together, HR and IT can couple virtual leadership methodology with collaboration technology to support high-performance virtual working.

HR (or Learning, or Education, or Training, for example) is already in the business of leader development, which means that IT can partner with that function to integrate the behavioral aspects of working virtually into existing curricula, or to create new training. Volvo IT, for example, now provides the Information Worker Package, a virtual team service package comprising technology tools and behaviors co-crafted with HR but delivered by IT.

### Coordination: Mapping the Organization

IT has great reach and scope when it comes to providing unique organizational information in novel and quantitative ways. It can map the organization to aid communication, collaboration, and coordination. And it can analyze the maps to produce data about the organization that supports the large-scale decision-making capacity.

Using its directories, permissions, databases, and streams of information flow, IT can construct maps that make the organization's working networks visible and accessible. Such views complement the limited horizon of direct experience most executives rely upon.

BCKS provides an example of how these maps can help a small network of organizations visualize its assembly into a new organizational function. The Combined Arms Center (CAC), the Army's intellectual and educational hub, recently decided to create an organization-wide knowledge function called CAC-Knowledge (see Figure 3). Its purpose is to coordinate functions and share services within and between five key organizations: BCKS, the Center for Army Lessons Learned (CALL), the Combined Arms Doctrine Directorate (CADD), the Combat Studies Institute (CSI), and the prestigious publication *Military Review*. Knowledge flows directly from soldiers and leaders in BCKS-provided large professional community forums (e.g., CompanyCommand.com) and small team rooms, from after-action reviews and other sources through CALL, to the codification of current best practice into Army doctrine through CADD, and to publications that provide special knowledge, broad context, and deep history.

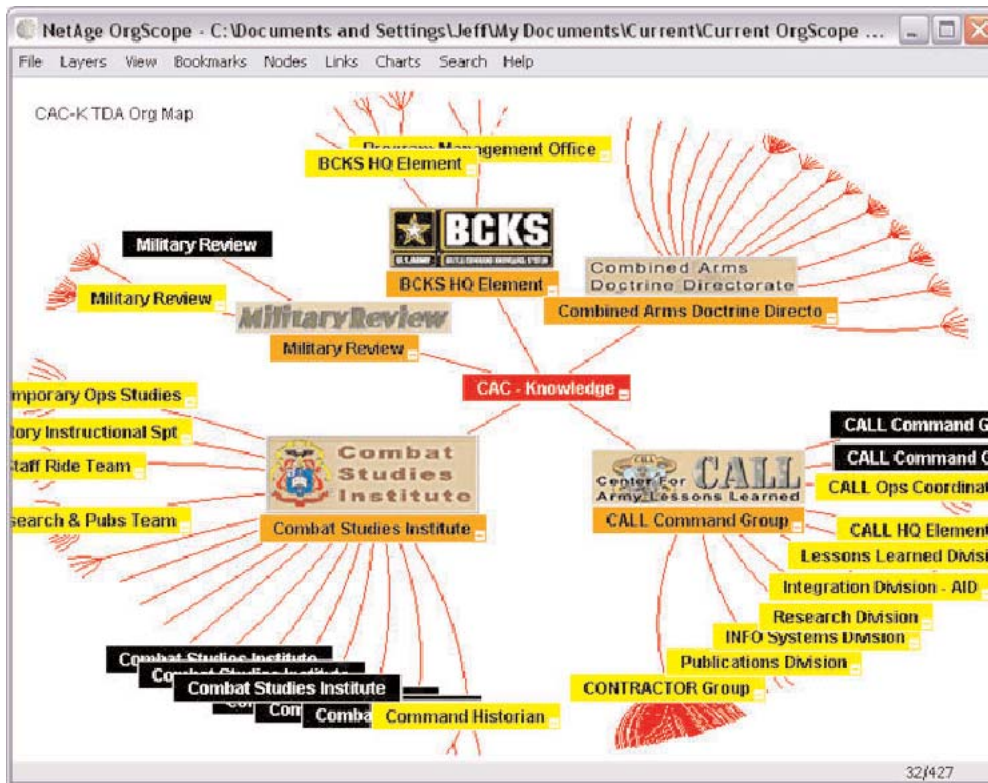


Figure 3 — CAC-Knowledge organizational network map.

To gain a complete picture of the formal organization beyond the reporting hierarchy, enterprises need to map their networks of matrix reports, the burgeoning multi-team memberships, and the horizontal workflow hand-offs between teams. As more kinds of relationships are added to the reporting hierarchy, these maps offer an increasingly comprehensive, easy-to-navigate, common mental model of the whole network and its interdependencies. When organizations widely share such interconnected maps with those who work in them, they create a “transparency of the whole.” Such views help provide organizational awareness — shared global contexts for making local decisions. This is akin to the military’s “situational awareness” of the physical context.

For leaders who run suborganizations of hundreds and thousands of people, accurate maps of the complex organizational whole are becoming essential as changes are made in faraway functions. Meanwhile, many HR organizations have been identifying social networks of influence and information that thread through the people occupying places on the org chart of jobs. By making transparent the currently invisible networks that connect people, organizations, and work, IT enables everyone to function more intelligently, be more aware of the whole, and be more capable of achieving shared goals.

### Decisions: Making and Communicating Them

Network models also show the topology of the organization as a whole. The dance between centralization and decentralization plays out in the dynamics of organizational design and redesign as strategy changes to meet the ongoing rush of events. Today, in particularly uncertain times, adaptive strategies are more likely to succeed than “stay the course” approaches rooted in the slower Industrial Era.

By analyzing network maps of the organization, IT can identify and clarify the real leadership positions from the bottom up *and* the “edge in,” bringing attention to critical hotspots. These “hub” leadership positions are the highest-potential/highest-risk jobs in the organizational network — positions that are typically overloaded and underresourced. By providing such information to leaders at all levels, IT expands everyone’s idea of leadership and how to improve it — knowledge that is at once visionary-strategic and practical-tactical.

Leaders *make* decisions and then *communicate* them. They depend on their organizational hierarchies to gather information, formulate options, offer recommendations, and make final decisions. Then leaders turn around and use the formal reporting lines as their

primary conduits for distributing the official goals, strategies, policies, procedures, and other messages from the top. These directives eventually land in the laps of line managers who lead staff teams.

Organizations swing between decision making, a comparatively complex process, and “decision telling,” which depends on communication. Hierarchies need to accommodate both — the capacity for making high-complexity decisions and communicating them along the shortest possible paths.

This brings us to the two opposing principles inherent in organizational structure:

### 1. Centralizing to optimize communications.

Organizations do this by increasing manager reporting spans and decreasing the number of levels in the organization. Fewer levels indicate shorter communication paths from top to bottom.

### 2. Decentralizing for complex decision making.

Smaller manager spans, meaning that managers have fewer people reporting to them, increase the number of organizational levels from top to bottom. More complex designs like these allow the organization to engage more specialties and devote time to deeper analysis before making complex decisions.

**In some cases, flattening the organization may produce nothing more than an enhanced ability to communicate truly poor decisions.**

The dynamic of local optimization of communicating and decision making carves a hierarchical landscape that is high in some places, low in others. Many-tiered mountains of small decision-making teams optimized for complexity are scattered through low-elevation plains of large teams transmitting strategies, standards, and procedures. The local organizational design and appropriate balance of the tension between centralization and decentralization depend on which concerns are paramount at any moment.<sup>6</sup>

Overall, organizations need to accommodate added decision-making capability while becoming even smarter about communicating. How do they do this?

The answer lies in how they mix the ingredients of size, manager span, and number of top-to-bottom levels in different parts of the organization. Where communication is the dominant need, as it is in sales groups, manager

reporting spans and teams are often larger, which reduces the path between senior and operating levels. Where decision making is paramount, as it is in research, there are apt to be more departments with smaller teams, which increases the path from top to bottom.

This is a critical consideration at a time when organizational change, redesign, and, yes, downsizing are hitting thousands of businesses, institutions, and agencies. The standing prescription for redesign today is to flatten the organization. This is a poor general rule. In some cases, flattening the organization may produce nothing more than an enhanced ability to communicate truly poor decisions.

People rarely call for more complexity within their organizations as a means of coping with an increasingly complex world beyond their own four walls. They should. A basic tenet of systems science is W. Ross Ashby’s “Law of Requisite Variety,” which essentially says that a system’s internal complexity must at least match that of its external environment. In practice, this means that greater diversity — of people, viewpoints, skills, disciplines, and the like — can generate more innovation and faster adaptation than can homogeneous teams. While there is likely some upper limit of diminishing returns here, it’s instructive for organizations to ponder this reality, especially as regards the advantages introduced by working virtually, which radically increases access to diversity.

### Organizing for Communication

Management teams of solid-line reporting relationships are ideal vehicles for communication. Such teams are two-level organizations, with a manager and his or her direct reports just one link apart. Communication distance doesn’t get closer than one degree, whether in networks of family, friends, or coworkers. Every manager in the hierarchy has a one-degree team, a star-shaped cluster of closely related positions. The whole hierarchy is an interlocked set of one-degree management teams beginning at the top and reaching all the way to the bottom, regardless of whether or not any particular small group sees itself as a team.

From the executive perspective, messages stream down the hierarchy of reporting links in a progressively articulated tree akin to any wide-area communication system. In cable television transmission networks, for example, signals cascade from the “head end” (Level 1) through high-capacity trunk lines (Level 2) into lower-capacity branches (Level 3) and feeder lines (Level 4), finally “dropping” a thin wire to your home (Level 5).



By analogy, the CEO is the head-end source of signal and content, with managers in between repeating and amplifying the source transmissions, ultimately dropping the messages at the “homes” of the staff.

### Organizing for Making Decisions

In Western culture, our primary tool for tackling complex problems is analysis. “Breaking down” the problem divides something complicated into smaller, more comprehensible parts that may in turn be broken down further. In organizational structure, this problem-solving approach reveals itself in the propensity to differentiate and create more levels.

An organization tends to decrease manager span and increase levels when complexity increases and more decisions need to be made. Here, the hierarchy acts like a giant decision tree, a method used by operations researchers to analyze complex choices. At the highest level (Level 1 for our purposes here) is the final decision to be made (e.g., allocation of resources among major projects), with branches (Level 2) to each of the major option areas. Operations researchers map out successive levels of branching and analysis within each option until they have calculated all alternatives and values. The more complex the choice, the more decision branches they need to map.

Each team and team of teams must design itself to fit its basic mission. In simple terms, this is the recipe:

To communicate better, make the organization’s structure flatter (i.e., reduce the number of levels and enlarge the size of the teams).

To make better decisions, make the organization’s structure deeper (i.e., increase the number of levels and reduce the size of the teams).

For larger organizations, some parts will be more centralized, others more decentralized. No one design is best everywhere, and global edicts to flatten and simplify may, as we suggest above, undercut the organizational capability to cope with complexity. Indeed, collaborative technologies that connect people in all directions horizontally and vertically enable much faster and better communication pathways. So today’s fast-changing organizations can in fact become more complex to support better decisions, while also communicating faster through formal but nonhierarchical channels. The hierarchical design tradeoff between smarter decision making and better communication is being transformed into a “both/and” as the whole organization becomes interconnected at every scale from the single individual to the enterprise as a whole.

In the years and decades to come, organizations will need to morph to accommodate the pressing needs of the moment. But they can only do so if they can develop accurate, comprehensive mental models of themselves. And this is where IT comes in: using innovative tools, such as hyperbolic viewers and other network display technologies, it can map, navigate, and analyze the whole organization as a network.

**IT has its finger on the pulse of complexity.**

### BETWEEN ORDER AND CHAOS

Networks ripple. A small decision here plays out as major activity elsewhere in the web. Big effects arise from many small movements. Abstractions at a large scale become everyday local juggling acts for managers and staff across the hierarchy.

Organizations require both order *and* flexibility, stability *and* creativity. The structure must provide sufficient constraints to maintain integrity and enough freedom to innovate and adapt. Sufficient sameness and commonality have to mix with requisite variety and difference. If not, the organization will be either completely moribund or a total madhouse. Organizations change and rewire themselves as strategies shift and refocus, or they fail to adapt and eventually disappear.

Executives struggle to manage these contrasting forces. They find themselves simultaneously bringing some things to the center and pushing other things out, simplifying in some places and “complexifying” in others. They push for greater collaboration over here (perhaps to better deliver services) and greater competition over there (perhaps to control costs).

Three core functions — IT, HR, and finance — all have data with which to construct the basic network of how positions interconnect, in hierarchy trees and other networks of interdependent links. However, only IT has readily available and reliable data on both hierarchical and nonhierarchical relationships, including key contractors, formal teams, and patterns of inter-job/inter-person communications (i.e., where working communication interweaves with social networks).

IT has its finger on the pulse of complexity. It can help the entire organization achieve a dynamic balance between order and chaos, providing stability while enhancing innovation. It can advocate for, then deliver,

a new generation of the four strategic capabilities that enable people in the organization to more effectively communicate, collaborate, coordinate, and decide.

This is a powerful foundation for organizational wisdom that IT brings to the senior table.

## ENDNOTES

<sup>1</sup>Majchrzak, Ann, Arvind Malhotra, Jeffrey Stamps, and Jessica Lipnack. "Can Absence Make a Team Grow Stronger?" *Harvard Business Review*, May 2004.

<sup>2</sup>The purpose of the Army project was to produce a *Teams of Leaders Handbook* with the Battle Command Knowledge System (BCKS), the US Army's operational knowledge management (KM) "proponent" (as the military officially knows it, which provides legal authorization to push a specific agenda). Located at the Combined Arms Center at Fort Leavenworth, Kansas, the BCKS project focuses on executive teams that strive to be high-performing "teams of teams" while concurrently understanding and guiding the larger organizations they represent.

<sup>3</sup>Lipnack, Jessica, and Jeffrey Stamps. "The Easier Way to Work: Collaborating in World-Class Virtual Teams." *Cutter IT Journal*, Vol. 18, No. 7, 2005, pp. 35-40.

<sup>4</sup>Majchrzak et al. See 1.

<sup>5</sup>Lipnack, Jessica, and Jeffrey Stamps. *Virtual Teams*. John Wiley & Sons, 1997, 2000.

<sup>6</sup>Our conclusions come from an investigation of "Eleum," a 5,000-employee, multibillion-dollar business unit of a global enterprise. For details, see: Stamps, Jeffrey, and Jessica Lipnack. "The Virtual, Networked Organization: How One Company Became Transparent." Chap. 30 in *The Handbook of High-Performance Virtual Teams*, edited by Jill Nemiro, Michael M. Beyerlein, Susan Beyerlein, and Lori Bradley. John Wiley & Sons, 2008.

*Since the late 1970s, Jeffrey Stamps and Jessica Lipnack have been researching, writing about, and consulting on networks of people and organizations. They are the authors of six books on the topic, including Networking, The TeamNet Factor, The Age of the Network, and Virtual Teams. Their articles include "The Easier Way to Work: Collaborating in World-Class Virtual Teams" in the July 2005 issue of Cutter IT Journal. The authors can be reached at jeff.stamps@netage.com or jessica.lipnack@netage.com; Web site: www.netage.com.*