The **NETWORK ROUNDTABLE** *at the* **UNIVERSITY OF VIRGINIA**

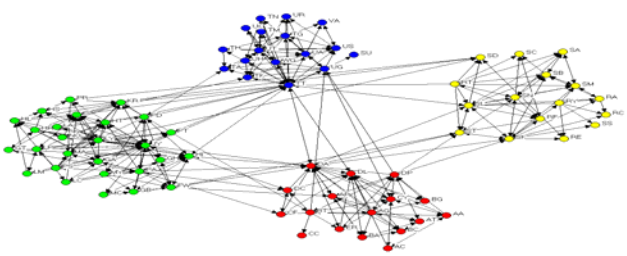
Creating the Right Decision-Making Networks:

Driving Decision Efficiency and Effectiveness
through Networks

Rob Cross
McIntire School of Commerce
University of Virginia
PO Box 400173
Charlottesville, VA 22904
(434) 924-6475
www.robcross.org
robcross@virginia.edu

Robert J. Thomas
Accenture Institute for High Performance
robert.j.thomas@accenture.com

David Light
Accenture Institute for High Performance
david.light@accenture.com



Abstract

During the past several decades, a great deal of research has revealed both cognitive biases and small-group dynamics that undermine effective decision making in organizations. In contrast, little work has been done on the ways that informal networks impact framing and execution of decisions. In this article, we present two in-depth case examples to show how organizational network analysis – applied to decision-making interactions in organizations – can help improve the effectiveness and efficiency of decision making. The first case demonstrates ways to use process mapping and network analysis to streamline decision-making interactions in a company enjoying rapid growth. The second shows how network analysis can improve top-team decision making and execution in a global organization slowed by bureaucracy and a culture of consensus. In both cases, we highlight the substantial insights and performance impact that can result when decisions are viewed through a network perspective.

Creating the Right Decision-Making Networks

Bad decisions plague organizations. High-profile examples abound, such as AOL's "acquisition" of Time Warner, the U.S. automakers' heavy bets on trucks and SUVs, Microsoft's delay in embracing the Internet, financial institutions' fueling of the subprime mortgage market, and Starbuck's global expansion in the face of deteriorating sales.

But even more insidious than bad decisions are decisions that go bad. Decisions that go bad are good ideas that garner support but somehow get lost, sidetracked, or even reversed in the journey from approval to execution. Consider a recent decision by an aggressive senior leadership team to submit a multibillion dollar offer to acquire a competitor in a time-sensitive and hotly-contested bidding war. In the heat of the moment, the team discovered it hadn't built agreement internally before making the bid, and the ensuing confusion in the next layer down in the organization resulted in a day's delay and loss of the target company to an arch rival.

Together, bad decisions and poor decision-making processes waste management's time, cost a tremendous amount of money (often not detected on any balance sheets), and slow innovation to a crawl. Over the years, researchers have plumbed many of the reasons for these failures. Problems inherent to small groups have been a major focal point for research, as attested to by studies showing decision and process failures caused by team composition, ineffective leadership, failed group processes, groupthink, and more.[1] In addition, psychologists have explored in detail the problem of "cognitive biases"—such as the overconfidence of decision makers and their tendency to discount alternative viewpoints.[2] Although cognitive biases and

poor team dynamics undoubtedly contribute to bad decisions, they aren't the only factors that take companies down the wrong path. Another critical issue has been overlooked: the role networks play, both within a team and throughout an organization, in the way decisions are framed and carried out.

Start with the way decisions are framed. An executive's network of influential relationships is central to his or her framing of the dimensions of a problem. Social scientists have clearly demonstrated that "whom you know" has much to do with "what you know." For example, one researcher summarizing a decade of work in the 1970s found that engineers and scientists were roughly five times more likely to turn to friends or colleagues for information than to non-human sources.[3] Even today, and despite the technology at everyone's fingertips, our own research and that of many others continues to emphasize the substantive degree to which people rely on others for the information they need to get their work done.[4] But researchers have not yet applied this thinking to the way networks can systematically bias the information executives rely on in framing decisions.

Networks also play a critical role in the execution of decisions throughout an organization. A "good" or "right" decision is of little value unless it is accepted and acted on by employees. In particular, informal networks of employees dramatically influence the execution of decisions throughout an organization. Company leaders often recognize but fail to leverage these informal networks, finding it easier to focus instead on an organization's formal structure. Too frequently they will create well-defined accountabilities and decision processes in the belief that they are designing more flexible and adaptive organizations. Unfortunately, such changes too often result

in counterproductive behavior unless the informal networks through which decisions are framed and executed also adapt. Network researchers have touched tangentially on this issue through the study of power, the diffusion of innovation, information flow, and social capital.[5] However, there has been much less effort put into understanding how network analysis can be used by managers to assess informal networks and streamline decision making in organizations.[6]

We set out to discover how companies can take a network perspective to improve the efficiency and effectiveness of their decision processes. Specifically, we conducted in-depth case studies at two life sciences companies, one a relative newcomer experiencing rapid growth and the other a long-established large firm. (See "About the Research.") We were surprised to find in both cases that decision making was hampered not by failures to get the right people involved but by far *too much collaboration.*

In the first example, we demonstrate ways to marry process mapping and network analysis to streamline decision-making interactions in a scenario of rapid growth in which poor definition of roles and decision rights had resulted in networks imploding on the hierarchy. In the second, we reveal means of improving top-team decision making and execution in a global organization slowed by bureaucracy and an overly consensus-driven culture. In both cases, we show the significant insights and performance impact that come when decisions are seen through the prism of networks in organizations. The results hold lessons for companies in other industries struggling to avoid both major disasters and the slow, steady drip of organizational lifeblood created by bad decision-making processes and dysfunctional organizational cultures.

Streamlining Core Decision Processes

In business, there is perhaps no greater pressure to make good and timely decisions than that experienced by leaders in the pharmaceutical sector. The stakes in this game are enormously high. According to the Tufts Center for the Study of Drug Development, the average cost from development to FDA approval is nearly $1 billion and takes more than 14 years; post-approval R&D runs another $100 million.[7] And despite some expensive high-profile recalls of certain drugs in recent years, most pharmaceutical organizations have developed cultures and formal structures that emphasize getting it right over getting it done fast. But both speed and safety are critical, as the typical opportunity cost in the market is an estimated $1 million per day.

Unfortunately, most organizations sacrifice speed by taking a more-is-better approach to decision-making collaborations. Whether moving to a matrix structure, adding another collaborative technology, or embarking on a program of cultural transformation, they simply look for more ways to connect people. Such initiatives can make leaders feel that they are increasing alignment and organizational focus on strategic objectives, when in fact they usually only create unmanageable collaborative demands and fail to bring about changes in behaviors and networks. A network perspective can rectify that unproductive approach. It helps leaders ensure that decision-making interactions deep within an organization are efficiently supporting strategic objectives.

Consider the fictionally named Cedarwood Pharmaceuticals. Over a 10-year period, Cedarwood grew from a five-person, single-product startup into a multidrug company with more than 3,000 employees. Throughout this rapid growth, senior management attributed Cedarwood's success to

a unique entrepreneurial culture of collaboration and inclusion, all of which fed innovation. However, by 2006, the CEO was concerned that the culture that had made Cedarwood successful had become an obstacle to efficient and effective decision making. An employee survey had revealed that decision making was seen as inefficient and unfocused; that decisions, once made, were often overturned; and that conflicting goals across functions hampered important decision-making processes. Company-wide, nearly three-quarters of employees said they spent more than half their time in meetings that lacked an agenda and that led to action less than 50 percent of the time.

As a result, the CEO tasked a multidivisional team with establishing a more effective decision-making process. This team's first step was to track a series of decisions as they made their way through the organization, recording the duration and ultimate result of each decision maker's involvement. Process maps drawn from this effort revealed that decisions tended to involve too many people, escalate too high in the hierarchy, and be revisited too many times. For example, at one point, four directors began a conversation about a relatively simple capital expenditure. From this initial "no-brainer" discussion, the budget request went on a five-month journey that consumed the time of two lower-level managers, analysts who had to run numbers several times, a director in a third department, two executives, and the original four directors several times – all to approve a decision that ultimately had only trivial amendments to the original plan. Had the original four directors possessed even minimal authority to make capital expenditure decisions, the purchase would have been made months earlier at a fraction of the labor cost.

The team found, in fact, that such inefficiency permeated Cedarwood. Decision rights were not clearly delineated or allocated, and as a result, even mundane approvals generated high collaborative costs. One decision for a $39,000 purchase logged $17,000 in labor costs over two months. Another decision took five months to bring about, costing the company more than $60,000 and involving 25 people over the course of one month alone. And labor costs reflect only a portion of the economic impact of inefficient decision processes. In the pharmaceutical industry, the high opportunity cost of a delayed new product introduction can be traced to managers' having to occupy themselves with trivial or routine decisions.

In tandem with the decision mapping, the team also conducted a network analysis. This process helped reveal opportunities to improve the efficiency of decision making by streamlining networks. For example, an analysis of the flow of information revealed a high degree of over-communication in comparison with similar networks at other companies. Employees at Cedarwood felt compelled to turn to many others within the company in order to get the support they needed. Simply paring down the size of these networks to meet a best-practice benchmark reduced the average number of interactions by 33 percent on a monthly basis, and by almost 40 percent on a weekly basis.

To identify the root causes of excessive collaboration, the team used the network analysis to assess both time spent in decision-making interactions and the primary and secondary roles that colleagues played in these interactions—such as decision maker, input provider, advice provider, someone who "wanted to know," or someone who simply felt "a need to know." By assessing the time element, the team was able to quantify the costs of over-inclusion and to isolate where

costs could be reduced. For example, the team learned that 60 percent of the time employees spent on decision making was with colleagues whom they identified as either input or advice providers—people who were not involved in making the actual decision. (See “Decision-Making Roles at Cedarwood.”) Similarly, too much time was spent persuading people who either wanted or felt they needed to know, a legacy of the organization’s culture of inclusion that was no longer sustainable.

The team also used the network analysis to identify routine decisions that involved too many people. Results showed that the average employee at or above the level of manager involved 13 people in his or her decision making each week, nine of whom were simply providing input or advice and so were not instrumental in the decision. By contrast, in comparable networks at other companies, the average employee would involve only between five and seven colleagues in similar decision cycles.

The company’s rapid growth played a part in this over-communication. For example, the network analysis and follow-up interviews revealed that Cedarwood’s legal department was all too often a participant in routine decisions. This was true for two reasons: The company had many newcomers who were unclear about when to involve the department, and the organization was especially cautious because of previous sanctions from the FDA over mistakes on new product filings. Armed with this knowledge, the legal department issued well-communicated guidelines on a range of routine decisions and reduced its direct involvement in common decision-making interactions.

However, problems also persisted with the making of non-routine decisions. In such cases, the legal department had a history of being forced to urgently intercede in the later stages. For example, the department had to intervene to discourage a legally questionable proposal to stagger summer work hours, even though it clearly should have been consulted earlier. To combat these and other inefficiencies, guidelines were created delineating when the department should be consulted on non-routine decisions with clear legal implications.

The network analysis also highlighted how Cedarwood's decision-making network was overly hierarchical—a result that surprised the company's leadership, which saw the culture as egalitarian and empowering. When decision-rights are not clear or well-allocated throughout an organization, the common tendency is for every decision to get pushed up the hierarchy—and this was exactly the case at Cedarwood. Managers at the vice president level and above were working to their limits, but they still kept people waiting for weeks or even months for answers. (See "Decision-Making Interactions at Cedarwood.")

One VP indicated that "it wasn't until I saw myself and my fellow VPs at the center of these networks that I realized just how reliant other positions were on us. I feel like I am making things happen all the time, but that really isn't true. It's just a bubble of activity around me, and I was missing a lot of things on the edge of the network where key innovations should be happening. I suddenly felt horrible about the stack of things on my desk and in my e-mail that I wasn't executing and so holding up a tremendous amount of activity." Far more than any other position, senior leaders had become unintentional decision blockers for employees at all levels.

What became clear was that Cedarwood's rapid growth had resulted in a lack of clarity about roles, responsibilities, authority, and empowerment. As a result, executive leadership had become over-involved in too many decisions. Of course, most leaders don't see a problem with decision making in their organizations—after all, they get to make most if not all of them! So a challenge for the team at Cedarwood was to convince top leaders to rethink their involvement. By quantifying the economic impact of impractical decision making, the network results made it very clear that senior leadership desperately needed to distance itself from some decisions while empowering future leaders to own them.

Since the network survey asked people to estimate the number of hours they spent actively involved in decision making with other individuals, the results were aggregated and converted to interaction costs, with loaded cost figures used for the different levels of management. Through this process, the team found that Cedarwood's management consumed 17,400 hours of people's time in the network each month on decision making, incurring labor costs that totaled a staggering $1.4 million per month. Further, the amount of time employees reported spending with "input or advice providers" cost the company nearly $800,000 each month in labor costs. Interactions with the real decision makers, by contrast, cost only $180,000. To combat these and other inefficiencies, Cedarwood ultimately implemented a three-step enterprise-wide program to revamp decision-making processes.

First, the team drafted guides on overall decision-making principles and practices and produced optimal decision-flow schematics for the most common and important decision types. The goal was to drastically reduce both the number of steps in key decision-making processes as well as

the number of participants that were necessary for making decisions. By thinning the density of the decision-making network and effectively delegating and communicating routine decision-making roles and rights, the number of costly and time-consuming interactions with input or advice providers was dramatically cut. For example, decisions on pricing and distribution associated with an upgraded product were commonly considered by two separate committees – one for pricing and one for distribution. The two groups were integrated into a single team, reduced in size, and given broader decision-making authority so that proposals would not need to be sent up the hierarchy for a decision to be made.

Second, senior leadership established a steering committee to reconsider governance principles and practices. One key output of this group was to quickly and dramatically reduce the numbers and sizes of committees. Those who remained involved in strategic initiatives were held accountable for being more timely and decisive. The combined pricing and distribution committee, for example, was given an explicit mandate to move faster. In addition, common practices were instituted so that meetings would run more smoothly. Even the team charged with analyzing decision making at Cedarwood was not immune. Because of departmental rivalries and unclear decision-rights, the team deadlocked early in the process, and it seemed for several weeks as if investigating decision making at Cedarwood would be nearly impossible. Under the new guidelines, decision making by consensus in ad hoc committees was dramatically reduced.

Third, Cedarwood began a cultural and behavioral change program to highlight individual accountability and reduce people's sense that they had to be consulted on even trivial decisions. This program included revised leadership training on decision making. Conflict resolution

training was instituted in order to ensure that disputes didn't bog down the decision-making process. Behavioral change was also encouraged by adding decision-making proficiency to the key personal competencies that would be examined in performance evaluations. Specifically, leaders were evaluated on how well they adhered to their assigned roles in routine decisions, as well as the extent to which they helped minimize the time and interactions involved in non-routine decisions.

Overall, these and other changes were extremely well-received by the company's employees and managers, who saw it as a step towards reversing the onset of hierarchy and rekindling Cedarwood's unique egalitarian culture. Senior leadership was also thrilled by the changes. A few months after the program was implemented, the company's president appreciatively told the original team that "in the end, the project was a huge success based on savings generated on a handful of decisions – not to mention the impact on the organization's culture and behavior. It's also going to prove invaluable as we prepare for aggressive growth in the near future."

Improving Top-Team Decision Making

Combining process mapping and network analysis techniques is a powerful way to systemically improve effectiveness and efficiency of core decision processes in organizations. Equally critical performance improvement opportunities are revealed by assessing the way in which a top team is enmeshed within information and decision-making networks. Top teams are the core of decision making in critical processes like strategic planning, resource allocation, and conflict resolution. They have substantial direct and indirect impacts on organizations. Yet too often efforts to improve executive team decision making simply focus on symptoms – such as engaging in team

building to enhance collaboration when the underlying problem is inadequate or biased information flow networks within and outside of the team. These kinds of solutions frequently result in excessive consensus seeking, lengthy decision cycles, and diffusion of effort and focus throughout an organization.

We found all of these concerns to be in operation when we analyzed the network of the top 140 employees of the R&D unit at one of the world's largest life sciences companies, which we call Juniper. As with most every global organization today, Juniper had recently reorganized into a matrix-based structure. The goal was to foster collaboration across a much broader range of expertise and perspectives in both new product development and marketing/sales. Much exacting work had been done to formalize decision-rights and create single points of authority, but Juniper was still in a state of gridlock. Interviews with the top management team consistently revealed that critical strategic decisions – even those that had been approved at the highest level in the organization – were never implemented efficiently and were routinely revisited and re-justified as different units staked out their turf in the new matrix structure.

Our interviews also suggested pervasive cultural tendencies that drove problems with decision making at Juniper. For example, all too frequently, employees would agree – or at least not disagree – with a course of action in a meeting but would then seek out highly influential people after the meeting and voice objections. Influential people would then get involved and create tremendous turmoil in the months and in some cases years after the formal approval of a decision. In addition, within this organization, being "right" was highly valued – or more to the point, there was an incredible fear of ever being wrong in a public setting. As a result, employees

would consult a wide range of people before making a decision, for various reasons—to placate formal leaders in the matrix structure, to avoid marginalizing someone they might need to rely on later and, most important, for the ability to say "I spoke to so-and-so," a high-ranking executive, before making the decision. So although a part of the network gridlock was caused by leaders' inability to let go, an equally important challenge was created by followers who were not willing to take courageous action.

At Juniper, all the right investments had been made in designing and implementing a matrix structure that should have yielded more effective and efficient decision processes. Yet, despite the alignment of the formal structure with Juniper's strategic objectives, culture and networks were trumping formal design. Employees working to their ends could not overcome these problems. Nor could the hundreds of millions of dollars spent on consulting advice and IT systems rescue the organization from gridlock. Juniper's leaders understood all of this viscerally, but they had no systematic way of addressing the problems. The network analysis helped them to get traction by making the underlying network drivers visible and actionable – thereby enabling leaders to take targeted action rather than rely on gut feel too heavily informed by just their own experiences.

One of the most important insights the network analysis provided had to do with the degree of network overload Juniper leaders had to sustain. Connectivity was almost 80 percent higher than it should have been in comparison to best practice benchmarks. In fact, across more than 300 organizations that we have analyzed, Juniper's R&D group was the fourth most connected we had ever seen. When we shared these results with the group at an offsite meeting, their

immediate response was to attribute the over-connectivity to the dual-reporting aspects of the matrix structure. But the matrix was responsible for only a portion of the network overload. To keep ever-skeptical scientists from avoiding discussion and resolution of the underlying cultural drivers and simply blaming the matrix, we also showed them information-flow and decision-making networks in which we had taken out all of the formal reporting relationships. Removing the formal relations decreased the degree of network connectivity only by about 10 percent, making it extremely clear to this critical group that cultural and behavioral tendencies were behind the overload.

Clearly, the gridlock could not be resolved by urging the R&D group's leaders to put in place a collaborative tool or to consume even more time at another offsite. People were swimming in collaborative demands and were unable to execute on a timely basis. And as hard as it was for established employees to work in and through these networks, it turned out to be almost impossible for new, experienced hires – brought in to help ensure the organization innovated in unique ways – to navigate this labyrinth productively.

Instead of turning to the common solution of engineering more collaboration, the group used the network analysis to visualize decision-making interactions in new ways. This helped on a number of fronts throughout the organization and had specific impact on the top team on two important aspects of decision making. First, the network view helped the leaders understand how to create less insular networks when framing strategic decisions. Second, it helped them reduce overload points in the network in order to streamline decision execution.

Framing decisions: avoiding blind spots caused by biased information networks.

The network results helped the executives see blind spots that were preventing them from identifying and discussing important problems. As with most top teams, they had been through a range of team-building initiatives to promote harmony and an ability to work together. But they had spent no time considering how information that significantly influenced their decision making was brought into group discussions through each executive's network of relationships outside of the team. This is a common mistake. In most organizations, the line that separates who is on the top team from who is not too often distorts a view of how these executives – collectively and individually – get their work done. By simply focusing internally, traditional team-building and coaching efforts too often miss the influence that myriad networks crisscrossing an organization have on top team decision making.

We showed these executives profiles of where the team's information and problem solving networks were well-connected into units they were charged with running and also where they – as a group – had poor connectivity and so the potential to be uninformed and possibly surprised by problems. It turned out that some units, geographic locations, and therapeutic areas within the organization had too great a "share of mind" from top team members, whereas others were relatively neglected. (See "Top-Team Attention at Juniper.") For example, Juniper had recently endured a substantial failure that many on the top team attributed to lack of awareness of problems in one particular unit. In reviewing the top team's ties to these units, many leaders indicated that there had been early warning signs that better executive team connections with that unit would have helped uncover before the problems became so costly.

Going forward, the team committed to managing a balanced portfolio of connections deep into other units to minimize the likelihood of being surprised again. To stave off a repeat of the recent project failure, the team members also made a concerted effort to focus more on units that would be increasingly important in the future. In addition, they adopted a more structured agenda-setting process and new decision protocols to help ensure they sourced greater breadth and depth of information through the network.

Individually, each executive engaged in a coaching program to help them adapt their own networks and ensure the right range of perspectives – both inside and outside the organization – were represented in top team discussions. Many had made the common mistake of gravitating toward people and information that were already familiar to them rather than reaching out to those with relevant expertise that they did not have (a common network trap). They could easily see where they were spending too much time and were overly influenced by the voices of people they knew and liked as well as others who had their ear in unproductive ways. Most also saw that they had three to four expertise gaps in their own networks, areas where they focused on strengthening networks to improve their own effectiveness as well as that of the top team.

This process was guided in part by the leaders' intuition of where and how they needed to develop more robust networks for future success. But another cut at the analysis also provided guidance by revealing the distinguishing characteristics of the top performers networks—specifically the top 20 percent performers among this organization's 140 highest-ranking people. Those executives were more effective in part because they did not have networks that undercut their decision-making abilities. Rather, they had connections with many more people who

bridged ties across functional lines, physical distance, and hierarchical levels. As a result, they were better positioned to understand the key dimensions of problems and to make better decisions – specific insights that many leaders put to good use in making decisions to adapt their own networks.

Executing decisions: optimizing network size and reallocating decision rights.

Getting decisions executed was no less of a problem at Juniper than getting them framed in the right way. Restructurings in the organization had created uncertainty about decision rights, and the tendency was to seek approval from the top, even on the part of senior employees. This created dense bottlenecks around the top team. At the extreme, more than 70 people relied on just one leader for informational purposes, and another 42 said it was critical to get more of this person's time to be able to execute on key business objectives. In response, we helped to delayer this leader's network through shifts in the definition of his formal role and adding roles underneath him to help spread the network demands.

Select interviews also helped define information domains and decisions that could be reallocated to decrease relational demands on a number of overly connected leaders, free their time for value-added activities, and increase others' ability to get work done more efficiently. The network perspective not only helped top executives reduce their connectivity overload, it also helped identify "rising stars" in the network who were ready to exercise new decision rights or "go to" expertise. As a result, it was a much more successful way to delayer and delegate than more traditional approaches where the already busy people get even more work.

In addition, though, it was also clear that several leaders were overloaded, not due to role but due to their own behavior creating too great of a reliance on them. In the coaching sessions, we focused specifically on a set of questions to help them understand counterproductive behaviors and got them to commit to changing their approach. (See “Are You the Bottleneck?”)

Finally, a key part of the decision-making network question was a branching logic that prompted people for routine decisions in the network. Each leader was given feedback, and plans were developed to help take those routine requests off of their plate. And where appropriate, efforts were put in place to embed certain of these decisions into policy protocol to remove this work from of the network. Examples of these routine interactions that had begun to consume too much of people’s time in the network included resource accessibility/requests for support; approval procedures such as capital expenditures and travel requests; best practice protocols; human resource decisions on hiring and compensation; and basic project management practices in the matrix structure.

Though still early, the results of this network-centric focus on the top team have been compelling. The number of collaborations required to execute decisions at key points in the network has been significantly reduced. This has had a positive effect not only on performance but also on employee morale, as people are not worn down by endless decision processes. One leader put it this way: “The strength of seeing decisions in this light is that it lets me for the first time see the multiplier effect I have on the organization. It helps me focus on just a few shifts to my role and behavior to reduce people’s reliance on me. Adjusting a couple of things has an

enormous impact on this network alone, which translates down to the remaining 8,000 employees in the organization in some substantial ways."

Decision Efficiency and Effectiveness through Networks

In an environment of fierce and rapidly shifting competition, companies have a smaller margin of error from poor decision-making processes. A network lens can add measurably to both decision speed and decision quality. In this article, we have shown how managerial decisions – in both framing of the problem space and execution of the decision – happen in an interactive way through networks distributed within and outside of a given team, committee, and even organization. Attending to these networks represents an important performance improvement opportunity to supplement what decision research has helped us understand about cognitive and small group decision biases.

About the Research

One reason so much of the cognitive research on decision making has been less impactful in organizations than it could be is that the studies locate decision failures *only* in the six inches of gray matter between decision makers' ears. Psychologists in laboratory studies can and must control information flow to pinpoint these biases. However, what they miss in real organizations are the systematic ways that networks distort the kind and credibility of information that comes to the executive team's attention.

In the case of Cedarwood, we employed a Web-based survey that took participants approximately 10 minutes to complete. The focus of the network analysis was to complement and enhance results obtained through process-mapping activities of decisions at Cedarwood. The following three network questions were of greatest importance:

- Please indicate the people whom you rely on for information or expertise to get your work done.
- Please indicate the degree that you rely on each person below for input or approval prior to making an important decision. [This question then provided branch responses to understand the role each person played in these decision-making interactions.]
- Please estimate the typical time spent per week in decision-making interactions with each person below.

In the case of Juniper, we conducted a simple Web-based survey that took participants approximately 15 to 20 minutes to complete. The intent of the network analysis was to help the top 140 employees (roughly the top 2 percent of that organization) become more effective in the

way they framed and executed decisions. The following three questions were of greatest importance:

- Please indicate the people whom you rely on for information or expertise to get your work done.
- Please indicate the degree that you rely on each person below for input or approval prior to making an important decision.
- Please indicate the people whom if you had greater access to you would be more effective in your work.

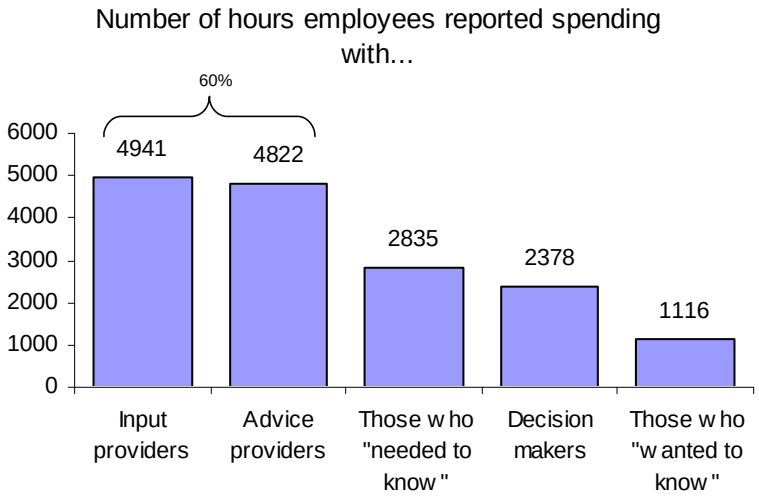
Are You the Bottleneck?

The following questions can help executives understand how they are impeding efficient decision making and lead to new behaviors that de-layer networks.

- Are you too responsive or quick to help and so an easy outlet for people with problems?
- Are you creating too great a reliance on you in expertise domains that have become less central to your success now and in the future?
- Are there ways you could create connections around or beneath – rather than through – you?
- Can you keep followers from pushing you back into too central a position in the network?
- Can you teach people to tap you more selectively?
- Do you hold people accountable for lack of execution (in as positive a way as possible)?
- Do you act quickly to correct collaborative problems before they escalate?
- Do you execute quickly and at the right point on decisions requiring your involvement?
- Can you remove yourself from meetings or use them as a way to develop key talent around you?
- Can you better set expectations – your own and others – that there might be a delay in answering their requests?

Decision-Making Roles at Cedarwood

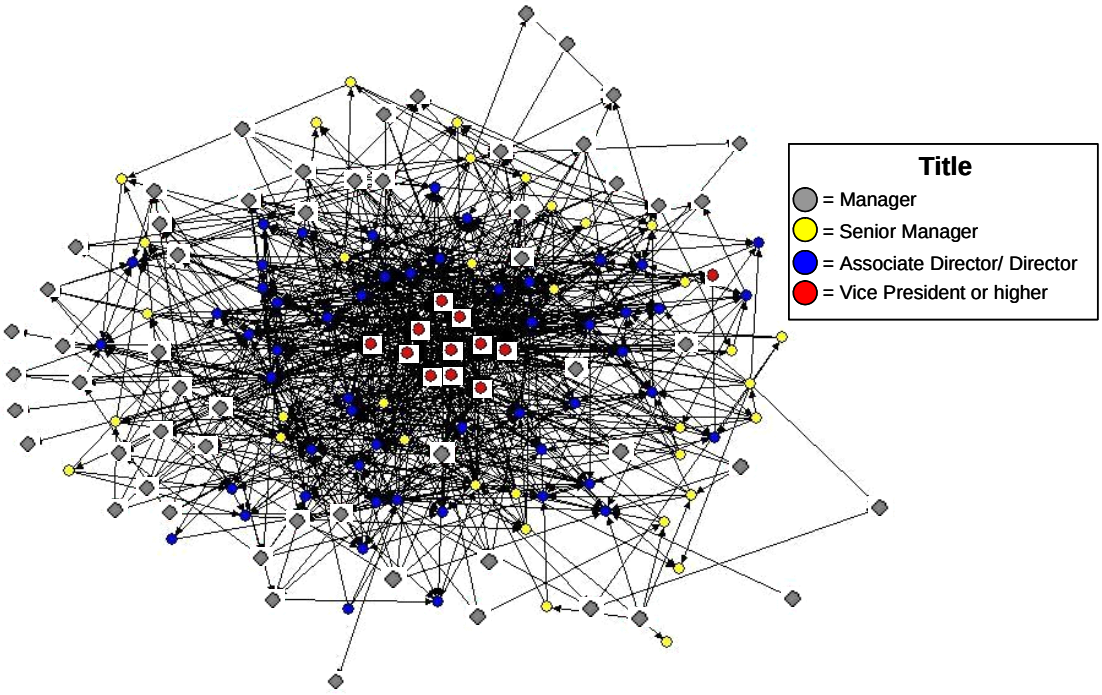
In order to discover inefficiencies in decision-making processes at the company, we asked people how much time they spent with others as part of the process. We learned that they were spending far too much time with people who were simply providing input or advice but had no actual stake in the decision itself.



ONA Questions: What roles do the following people most typically perform when involved with your decision making processes? In a typical month, please provide an estimate for the total number of hours you spend actively involved in decision making with this person.

Decision-Making Interactions at Cedarwood

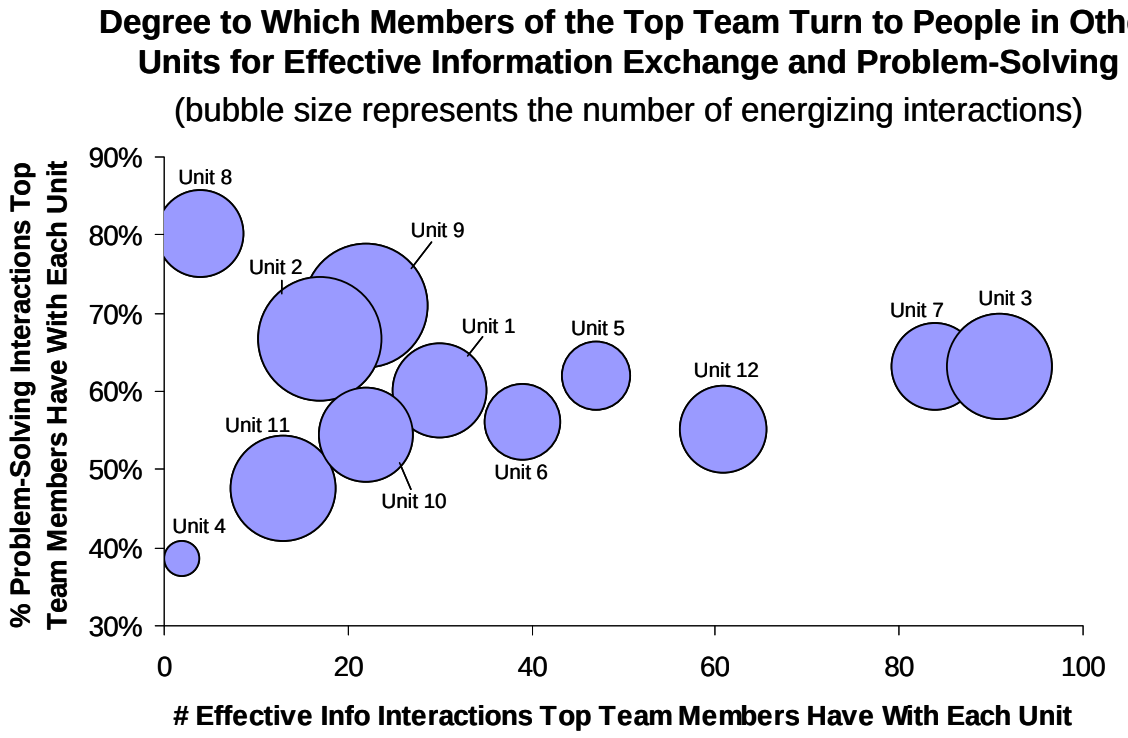
The concentration of red dots in the center of this network shows how hierarchical decision making at Cedarwood had become, with vice presidents and above acting as significant bottlenecks to efficiency.



ONA Question: What roles do the following people most typically perform when involved with your decision making processes? Diagram shows responses for "Decision maker"

Top-Team Attention at Juniper

As this graphic shows, some units within Juniper had a much greater "share of mind" with the top team than others. The size of each bubble indicates the number of energizing interactions between the unit and the top team.



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