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inside:

SYSADMIN

Private, HMO, and Group Support

by Steven M. Tylock

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Which Model Works for You?

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If the system administration field is like the medical field, are your users stuck with a group HMO plan when they want a personal physician? This article continues an earlier comparison of the fields of computer and network care and that of medical care by looking at the insurance vs. support model. Consider the similarities to computer care in this review of the state of health care over the past couple of decades:

- In the old days, a premium was paid for an insurance policy that basically said, When you use medical services, present this information and the insurance company will pay for those services on your behalf.
- As the cost and quantity of medical care grew, the health insurance industry decided to tack on an extra service fee (a "co-pay"), in order to have those who use the services bear a larger portion of the cost.
- The HMO, or Health Maintenance Organization, came into existence with the feature that in order to cut costs all around, services would be restricted more than in the past, and only certain service providers could be used to obtain those services.
- Group care went one step further: Instead of maintaining a one-to-one relationship between doctor and patient, a "group" of doctors would be substituted, easing scheduling concerns and maintaining profitability by increasing throughput (theoretically).

A significant detraction of the increasing restrictions on the end user (the patient) was the loss of personal contact with a highly skilled professional. And so, not only were patients paying more for the service (increased premiums, co-pays, deductibles), they were left with a feeling that they didn't really matter anymore.

Centralized vs. Decentralized Care

IT organizations have gone through periods of tremendous growth where support methodologies have been tried, modified, and discarded in favor of "new" approaches.

- The dedicated system administration function has provided the most personal and detailed attention to a functional group's computers and networks. The highest level of costs accompanies this methodology.
- When management wants to equalize the cost of the above solution, they adopt a cost-allocation strategy that may or may not appropriately penalize/reward the desired behaviors. Service will not necessarily change, but it will get talked about a lot more.
- Approved lists of acceptable/unacceptable support expenses provide the next step to control costs. Requests within the bounds of the cost-savings measures are honored, while requests outside of those bounds subject the requestor to an endless stream of approvals (most often requiring the requestor to pay the full freight for the requested activities).
- The last step in the internal process, centralizing services, cuts any remaining personal contact between the requesting organization and the service organization. While the official count of support costs will go down, the indirect costs of self-administration and end-user "workarounds" is usually not accounted for.

The end user may be receiving the products and services but is *not* the customer.

- "Outsourcing" remains the one available option for senior management. This measure ensures that end users realize that they didn't know how good they had it when they had their own sysadmin. In order to get what they want done, they may task one technical resource within their department as the local sysadmin, at least part time.

Yes, this author acknowledges that the above cycle is not cast in stone and that certainly at least one company has made centralized or outsourced system administration work. Unfortunately, it appears that, more times than not, the system breaks down and fuels the growth of an underground system administration function that hides personnel with not-so-accurate titles.

Why?

It makes sense if you examine the money trail; who is the customer? When you or I visit the doctor, who is the customer? We are, or so we think. If you have signed up for an employer-sponsored health plan, often the employer pays something like 75% of the cost of that plan. But no matter what share of the cost is assumed by the employer, guess who is negotiating that plan with the health insurance company – the employer.

And so it follows: Which of time, quality, or cost is the employer most interested in optimizing? Certainly time and quality are not left out of the equation, but they are not the driving factor that cost is. On the positive side, many employers know that some percentage of their workforce considers factors other than cost and is willing to pay more for a plan that enhances health care "time and quality." These companies offer additional selections (for additional cost).

The cost of system support runs the same way. You might think decentralized system administration provides good end-user support, but even then, the functional department or unit, not the users, is picking up the support costs. The first attempt to saddle "users" with the cost of their own support does not reduce the need for that support, but makes the cost very visible. Restrictions on support work as well as restrictions on health care – the large majority of situations can be taken care of by a small part of the process, but the unique situations cannot be ignored (even if the business unit decides ahead of time that it is acceptable to have a two-day recovery period for all end-user system crashes). In order to get a network specialist to look at your problem, you must first get a referral from the group of primary sysadmins.

Complete centralization of system administration work is successful at wringing out the last dollar of savings on direct administration costs because the "company" is paying the bill for the support. The company is telling the support organization what the acceptable level of service is – that which can be achieved with *x* dollars of support. The end user may be receiving the products and services but *is not* the customer.

Where To?

I'm a firm believer in moderation in all things. The goal of infrastructure support is to provide a high level of service to a dynamic population in the most cost-effective way. If end-user needs are paramount, then the system needs to absorb extra costs to manage those needs. If cost constraints are paramount, end-user expectations must be managed to absorb the decrease in service. The middle ground provides an opportunity to manage the environment to the peak of service and cost.

Having spent several years as the system administrator slave, I can attest that the "one dedicated system administrator to N systems" approach fails. This decentralized sysad-

min is given the most local control of systems, but is placed in the most critical role; when the sysadmin is absent for any reason, work will wait until he or she returns. While management is unhappy at the exposure to these events, it is quite happy to be able to direct the activities of the sysadmin to local projects and requests.

Having spent several years subject to the "help desk," I can say that the approach known as "global services" also fails. The first person to answer the phone at the central help desk is usually trained in answering the phone and filling in the help ticket. Sysadmins lose the local connection and history of the environments, while end users lose their sanity and find ways around the system.

Why can't we centralize to a properly sized team environment? Consider a team composed of seven to nine members with a mix of senior, journeyman, novice, system, network, and PC administrators. This team could be tasked with optimizing the management of a set geographical or logistical environment. While a trouble ticket system is required, the distribution of those tickets can be managed at the team level.

Proposed Model

The *Systems Squad Model* of system administration optimization is based on:

- Continuity of superior service
- Economies of scale
- Appropriate cost sharing
- Team-based sharing of skills, talents, and training
- Team empowerment and flow

Continuity of Superior Service

The goal is to provide superior service with the "right level" of customer contact, skills, history, and sharing of responsibilities.

Economies of Scale

It is more cost-effective to centralize than not to, but over-centralization brings about monetary gains through loss of quality, flexibility, and speed.

Appropriate Cost Sharing

Finance has often tried to justify a system of cost allocation merely because it is the system currently in place. The Systems Squad Model for cost allocation would:

- Place costs at the lowest level at which they can be divided – individual, project, department, organization, or the company as a whole.
- Individual costs provide some idea of the cost structure at that level.
- Group costs justify "bigger ticket" items.
- Provide a fixed cost each month, with variable costs based on events and requests.
- Provide an element of cost control through approvals.
- Include flexibility for special situations.

Team-Based Sharing of Skills, Talents, and Training

The Systems Squad Model provides an environment where all experience levels both train and teach. More experienced members have explicit obligations to the junior members, but they will also learn through teaching and through working with the more experienced members of peer teams.

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Team Empowerment and Flow

With a nod to politics (corporate, educational, governmental, or otherwise), the squad reports to the highest organization that it supports. All of the squads report to a central organization, providing consistency between groups and setting support rates through a corporate liaison.

Team members flow in and out, with hiring and transfer decisions based heavily on team decision-making. Though teams maintain integrity, members flow between teams throughout the company, building the entire organization.

Barriers

This model faces objections from many fronts. Some of the most likely come from:

- The decentralized environment: Sysadmins in this environment like the local control over systems, would love to have help in a shared fashion, and hate the concept of centralization. Managers of local sysadmins like the control (over the sysadmin), are tempted by the potential for better service through consolidation, and are scared by the thought of centralization.
- The centralized environment: Sysadmins and managers in this environment are probably not so keen about it, but accept it as the way things are. The political structure above the sysadmins, however, would likely be threatened by it, and the financial controllers might be worried about a system with less visible controls.
- They've all become comfortable with the way things are, and change is something to be feared (or so the common belief is).

Conclusion

The Systems Squad Model looks to optimize value, beyond just an optimization of the money spent on infrastructure. It hopes to optimize the cost, quality, and speed of the organization to deliver more to the end user, project, department, organization, and company than any centralized or decentralized model has done in the past.

And I think that's what we want in health care, too.