

apropos

Sysadmin Jobs: The CIO

by Tina
Darmohray

Tina Darmohray, contributing editor of ;login:, is a computer security and networking consultant. She was a founding member of SAGE and has been a Director of USENIX.

tmd@usenix.org



What's It Take?

I've been thinking about system administration job descriptions again, this time in the context of who manages system administrators and what they know and do.

Just as the proliferation of computers required professionals to take care of them, keep them up and running and talking to each other, the proliferation of system administrators has necessitated a management chain to manage the overall effort.

The literature reflects that in the early 1980s we began to see CIO (Chief Information Officer) positions. This C-level executive arrived on the scene from a variety of places: some organizations simply promoted existing directors of MIS, others attached CIOs to COOs or CFOs. Depending on the organization, there might also be a CTO (Chief Technical Officer), or the CIO could be wearing both those hats. One thing these positions usually have in common, though, is that somewhere down the line they are managing folks who are managing systems.

I asked a number of colleagues, working in a variety of industries as well as education and government, "To the extent that a CIO is the 'ultimate' system administrator manager, what qualifications should the CIO have?"

First off, a couple of people who responded cautioned that the CIO in fact isn't just "the ultimate system administrator manager." They emphasized that the CIO has a larger scope than just system administration, e.g., networking, DBAs, help desk, desktop services, and more. In summary, the CIO is responsible for all aspects of the data at a particular organization; managing the systems is part of the equation, but it is not the whole of the job.

Of course I have my own bias on what it takes to be a good CIO, and how I'd prioritize those qualities, but I'll leave my vote out of it and present the findings of my non-scientific survey.

The top vote-getter is a focus on funds/budgets: folks want their CIO to be able to assess, predict, and manage the bottom line. Specific experience in managing budgets and in both funding and managing IT projects was mentioned. But probably the most insightful comments centered on a CIO's understanding of running a service for their organization, and that the measure of their success was how well their efforts supported the organization's overall success. This attribute increases in importance the more information-intensive the organization is.

People management comes next. Some folks quantify it, saying that a CIO should have at least five years of management experience. Where the experience was gained may not be significant, as it's recognized that the most important management knowledge transcends the details of the environment. But no matter how you slice it, management experience is essential. One person laid it on the line with this comment, "If you haven't earned your chops, no one will respect you."

Tied with measurable management experience comes the less quantifiable "vision thing." The CIO must be able to absorb knowledge of emergent products and services and set high-level technical direction for the organization. It's not enough to be able to see the big picture; the CIO must be able to communicate that view to their employees and persuade them to head in the stated direction. So the "vision thing" in turn requires the "communication and leadership thing."

Rounding out a three-way tie is what I'll call technical prowess, because the feedback on what is needed is split between hands-on technical experience and having enough technical background to make technology judgment calls. Regardless of how you get it, the CIO needs to possess a technical background in order to understand what technical people who disagree are saying and to pick the right solution.

Perhaps more of a warning than a qualification: tenacity is felt to be key. Some war stories seemed to poke through with this recommendation: "If they aren't tenacious, they become the executive-level whipping boy," and "A CIO is more a management than an IT expert, because s/he will have to interface with other high-level management and without the correct political skills, s/he won't survive or won't be able to help her/his staff."

Clumped together at the bottom of the list are the need to be aware of security issues and a proven track record in technology integration and implementation. These two are near and dear to my own heart, and since they are the only fairly specific areas of knowledge mentioned, I took that as a positive sign.

Financial and management experience, vision, leadership, technical prowess, tenacity, security awareness, and a proven track record in technology integration and implementation: These are the qualities that industry professionals need their CIOs to have. Does yours have what it takes?

Thanks to Wendy Nather, Debby Hungerford, Shawn Instenes, Philip de Louraille, and a dozen anonymous respondents.