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THE MAGAZINE OF USENIX & SAGE

August 2002 volume 27 • number 4

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SYSADMIN

Tylock: The Sysadmin's Court: Liz Action vs. Jack Trades

USENIX & SAGE

The Advanced Computing Systems Association &
The System Administrators Guild

The Sysadmin's Court: Liz Ation vs. Jack Trades

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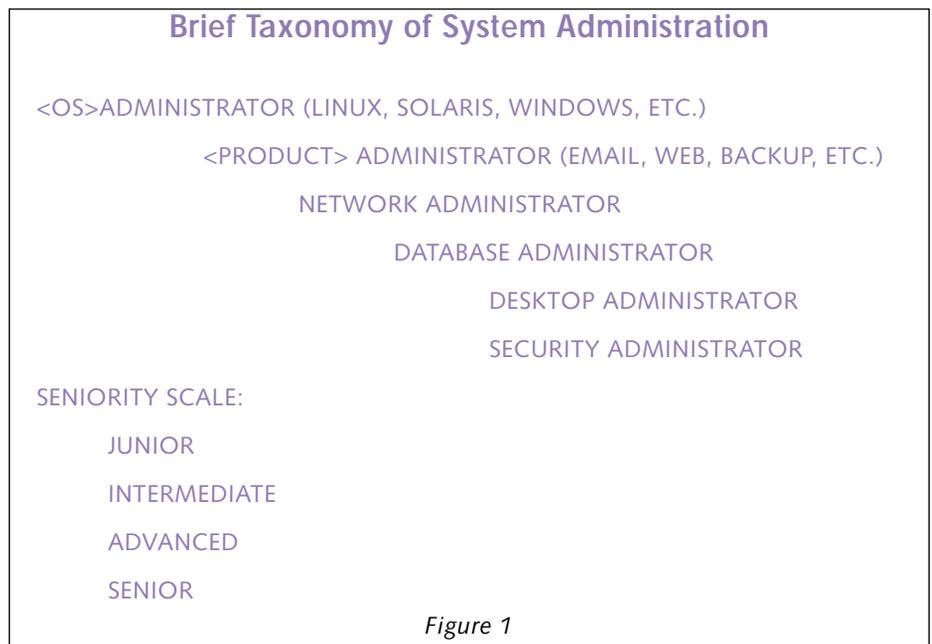
Judge Daemon: I've read both the claim and the counterclaim. Please begin Ms. Ation.

Ms. Ation: Your Honor, by refusing to gain in-depth knowledge in any specific administrative domain, Mr. Trades is dooming the clients he supports to inferior service. He will be unable to properly assess and care for the critical situations that arise.

Mr. Trades: Your Honor, Ms. Ation is out of line when she suggests that my clients will receive inferior service when it is her environment that will suffer. By focusing on individual technologies, she and her associates will subject their clients to higher costs and incessant delays due to finger-pointing as each specialist disowns problems until proven otherwise. No problem will have a simple solution, and the overall architecture will suffer.

Judge Daemon: That will be enough. Ms. Ation, what specific issue do you have with Mr. Trades?

Ms. Ation: Mr. Trades refuses to delineate the specific nature of his administration. I present in support of this Figure 1, a "Brief Taxonomy of System Administration":



Ms. Ation: If Mr. Trades were to focus his career in any one of these domains, he could be tested and certified as an expert. By not doing so, he loses the edge that the specialization would give him in both the workplace and the job market.

Mr. Trades: Your Honor, by learning enough about each of those domains to perform the generally required work, I am able to both design a robust environment and troubleshoot the entire computing and network infrastructure as needed.

Further, as an example, recall the botched rollout of the worldwide customer contact application? It was slow for every user not sitting in the headquarters. Each specific administrator said their domain was not at fault: servers were not loaded, the database was mostly idle, LAN and WAN traffic was clear, client systems worked normally.

The answer was noticing that each time the application wanted an update it had to make 120 round-trip calls to the server in headquarters. Each of these calls was dutifully and properly made, but the sum total of the time needed to make them had the application crawling along. The so-called domain experts provided graphs of proper service levels but missed the problem completely.

Ms. Ation: I'll concede that specific example, but there was the instance when our jack-of-all-trades was stumped by the nuances of protocol Z – and while he was scratching his head, the clients stopped working until an expert was brought in to clean it up.

Judge Daemon: Ms. Ation, what remedy would you propose?

Ms. Ation: That Mr. Trades be forced to declare a specialty and become properly trained in it.

Judge Daemon: And if the environment that Mr. Trades works in were to require expertise in three different specialties?

Ms. Ation: They would need a specialist for each of them.

Judge Daemon: So, If the organization had 30 system administrators and 10 domains of roughly equivalent needs, three admins would specialize in each?

Ms. Ation: Yes.

Judge Daemon: And if there was a budget and justification only for three system administrators for those same 10 domains?

Ms. Ation: (flustered) Well, they would have to live with inferior service as each admin takes on three or four domains of knowledge.

Judge Daemon: And Mr. Trades, what you are saying is that these three system administrators would be able to do quite well as generalists, with perhaps some minor differences within their abilities?

Mr. Trades: That is correct.

Judge Daemon: So, when the organization grows from those three admins to 30, do you think there is any cause for 10 of them to specialize in those specific domains?

Mr. Trades: (hesitating) Well, I suppose they would be able to at that point, as long as some of the generalists remained.

Judge Daemon: So we are agreed then that there is a body of knowledge required for the efficient operation of any organization's computing and network infrastructure.

The precise division of that knowledge into actionable units depends on a number of factors that will each affect the quality of service:

- Availability to the end user
- Level of expertise
- Knowledge of the overall environment
- Complexity of the overall environment
- Available budget for administration

I advise you to forget about being a specialist or a jack-of-all-trades and concentrate on making the infrastructure work according to the specific situation you find yourselves in.

Case Dismissed.