

## Cisco administration 101: Five things you should know about your network

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### Takeaway:

Whether you're in charge of your first network or your 100th, there are certain things you should know about the network you work on every day. David Davis has compiled a list of five things every administrator needs to know about his or her network. Check out his list, and post your own in this article's discussion.

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Whether you're in charge of your first network or your 100th, there are certain things you should know about the network you work on every day. And while you may feel confident in your administration skills and experience, it never hurts to step back and take stock.

Therefore, I've compiled a list of five things every administrator needs to know about his or her network. This can come in handy when it comes time to document your network or train a newly hired administrator.

Keep in mind that this isn't a wish list of options. If you're responsible for your organization's network, you'd better know these things—or else.

What is your network baseline?

Network administrators use a baseline (or benchmark) as the basis for future measurement of a network. So when you start having trouble with your network and check out some network statistics, you can use the baseline to know what's normal and what's not.

If you have a small network, you could create a baseline by periodically capturing the output of a number of commands for every router and switch. However, while this may work for a very small network, it's not a feasible approach for a network made up of more than a few devices.

To develop a baseline for a midsize network, you could use a tool such as PRTG, MRTG, or another network analysis tool. You could also use something like Cisco's Security Device Manager (SDM) and take some screen captures.

Whichever method you decide on, the important thing is that you know what your network normally looks like and can determine what's abnormal for your network. For example, do you know the average kilobits-per-second utilization on your main router's WAN port? Is 5-MB utilization at 10 A.M. on a Monday normal for that port?

If you can't answer these questions, then you don't have a baseline—and you're not keeping an eye on your network as much as you should. While you don't have to memorize pages of statistics, you do need some sort of way to be able to compare present and past performance.

Where are the network bottlenecks?

Do you know where the bottlenecks are on your network? If you transferred a 1-GB file from your headquarters to a satellite site in Timbuktu, which path would that traffic take? Could you transfer it during the day without impacting network performance?

That's why you need a network diagram. A network diagram should tell you where the bottlenecks are. If you don't currently have a network diagram, it's time to create one. You can do so using a tool such as Visio.

Don't make the mistake of considering this an optional resource—it's necessary for resolving network problems in a timely manner. Make sure you develop the tools you need now, before you need them.

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