Systems Engineer Interview Questions

Source: Kate Matsudaira – http://katemats.com

Resourceful
• Have you ever been in a situation where you found yourself having to learn a technology in order to perform a task essential to your job responsibilities? What did you do?
• What blogs/sites do you read to stay abreast of current trends?

Reliable
• Have you ever been on call before? Did you like it? Did you ever miss a page?
• When have you gone over and above at work? If you had to do it over, would you do it again? Why or why not?
• Have you ever done something on the job that were really proud of, but no one else really knew about?
• What does being awesome at your job mean to you?

Best Practices - Monitoring
• Based on our current website (or ask about a past project or site they worked on – any example will do) what is the minimum set of things you should monitor? What is the optimum set? What has worked well in practice?
• Have you ever needed more monitoring and didn’t have it? If so how did you get around the problem?
• Have you ever setup a monitoring system like Nagios, Munin, Zabbix, etc? If so, what were some of the things you learned from the process? Any changes or improvements you would have made?

Best Practices - Disaster Recovery
• What is a disaster recovery plan? Have you ever created one? In your opinion, how (and how often) should you test your plan?
• How do offsite backups play into such a plan?

Technical Knowledge
• What is a 3-way handshake? Hint: TCP uses it.
• How do TCP/IP networks work?
• How does DNS work? Have you ever had DNS go down? When should you have backup DNS – have you ever had to set this up for a website?
• How does traceroute work?
• You have a MySQL DB, once you login how could you find out the schema of the db? (or any other set of basic SQL commands)
• What was the last piece of software you installed on a server? How did you do it? Had you done it before? Do updates/install always go this smooth for you?
• What are the pros and cons of using a cloud like Amazon?
• Write a regular expression that can find all the [ phone numbers | websites | emails addresses ] in a file?

Troubleshooting
• What is the worst mistake you have made at work? How did you fix it? What did you learn from it?
• Someone says the website is slow. How do you troubleshoot the problem? What steps do you take? At what point do you ask for help?

Working problem
• You have an application running on its own server and you want to host it at www.yourdomain.com/newservice - what do you need to do so that when users go to that url it will resolve to the right host.
  Note: there are several different ways to solve this, and they can depend on the web server you are using, so you may also want to state the webserver that a candidate has worked with or that you use – i.e. Apache, tomcat, etc.
If they don’t know off the top of their head, this is a great one to give them a computer with access to google and watch them figure it out.

• Write a script that will ping each of the following websites (insert list of 3-4 websites of your choice) and report the time they take to respond and then output these response to the screen. It should do this every 10 seconds for a minute before terminating.
  Feel free to let them use google and there own laptop – whatever makes them comfortable. Note: not all candidates are comfortable with scripting, so you should only ask this if they claim proficiency on their resume.

Documentation
  • What is the best way to keep documentation up to date?
  • What is the minimum amount of documentation you need to support a service/system?

Teamwork
  • How do you balance customer service skills and technical skills?
  • Have you ever had to create a schedule for a project? What was the project? How did it go? Did you always hit your deadlines? If not, what did you learn from the experience?
  • How do you like to work? By yourself, as a team? At home? At work? What are the conditions under which you do your best work?
  • Tell me about a time when you “wowed” a customer.
  • Are there any coworker behaviors that really drive you crazy? How do you deal with them?
  • What makes you a great teammate? How do you think you could improve your soft skills to be an even better teammate?

Culture
  • Where do you want to be in 5 years? How does this job/role fit into that vision?
  • What would your last manager say about you? The good and the bad? How are you working to improve or mitigate the bad parts?
  • When have you had the most fun at work?
  • Tell me about a time you have gone over and above the call of duty.
  • Which project is your biggest success and why?
  • Have you ever read a book that made a big impact on you? What was it and what did you learn?
  • Do you consider yourself weird? Why or why not?