System Administrator

John K. Somma – Mr. Somma has over 30 years of experience as a Systems Administrator. He currently works for NIC Inc. for the State of Michigan.

What does a System Administrator (SysAdmin) do?

Do you like computers? In today's working world, you cannot do your homework much less any job unless you have a computer and an internet connection.   Think about your home internet connection and all that it can do for your family. Maintaining and keeping that running is the work that a SysAdmin does on a much larger scale.

As the job title states, the SysAdmin administrates all of the technical infrastructure that a company uses. This will include phones and hand-held devices, computers, server computers, networks, routers, switches, databases, Internet connectivity, email, tape backups, and internal data storage.   The SysAdmin must make sure that everything is running smoothly and in a secure fashion.

The most important work that a SysAdmin will do if to fix something if it's broken!

How Do You Become a System Administrator?

1.) You need a 2 or 4-year college degree.
2.) Optional, you need to get a certification.

There are many paths/options that can be pursued, and this document will try and present as many scenarios as possible.

System Administrator

These two links are a good start:

https://study.com/articles/How_to_Become_a_System_Administrator_Career_Roadmap.html

https://en.wikipedia.org/wiki/System_administrator

Training

Everyone constantly needs to keep their skills updated! Yes, the school part never ends; so let's start here:

https://www.cybrary.it/

In this section, a System Administrator will need training in a particular Computer Operating System. Below are links for LINUX/UNIX and Microsoft Wintel:

LINUX Training

https://www.cybrary.it/skill-certification-course/fundamental-linux-administration-certification-training-course

https://www.cybrary.it/course/comptia-linux-plus/

https://training.linuxfoundation.org/free-linux-training

https://itsfoss.com/free-linux-training-courses/

https://www.edx.org/course/introduction-linux-linuxfoundationx-lfs101x-1

Windows Training

https://www.cybrary.it/course/mcsa/

http://www.pearsonitcertification.com/articles/article.aspx?p=2014560

A System Administrator must have a general background in Networking:

Networking – General and Cisco Router/Switches

https://www.cybrary.it/course/cisco-ccna/

https://www.networkcomputing.com/network-security/8-free-online-networking-classes/1228232220

https://mva.microsoft.com/en-us/training-courses/networking-fundamentals-8249

https://alison.com/course/diploma-in-computer-networking

https://www.cybrary.it/course/comptia-network-plus/

https://www.cybrary.it/network-administration/

https://www.cybrary.it/skill-certification-course/subnetting-certification-training-course

SECURITY

Notice that this is in bold capital letters! Security training and work will be a daily task for any System Administrator.   How important is this? Well, for one example, if you ever get a US Government job that requires a Security Clearance, you will need a degree, a certification, and a Comp TIA Security+ certification as well.

Comp TIA Security +

https://www.professormesser.com/security-plus/sy0-401/sy0-401-course-index/

https://www.cybrary.it/course/comptia-security-plus/

https:/www.sans.org

http://www.cyberaces.org/courses/

https://www.cisecurity.org/

https://heimdalsecurity.com/blog/50-cyber-security-online-courses-you-should-know-about/

http://resources.infosecinstitute.com/top-5-free-learning-resources-for-cyber-security-beginners/

https://cybersecuritycourse.co/

Other Training Sites

www.brainbench.com

General Professional Sites

https://sf.tradepub.com/

https://www.cybrary.it/systems-administration/

https://www.makeuseof.com/

Computer Programming

Perhaps you might actually prefer the programming side of the career path. If so, here are some links to get you started:

https://www.entrepreneur.com/article/250323

https://www.codecademy.com/

https://www.makeuseof.com/tag/best-free-online-computer-programming-courses/

https://study.com/articles/10_Sources_for_Free_Computer_Programming_Courses_Online.html

https://medium.freecodecamp.org/450-free-online-programming-computer-science-courses-you-can-start-in-september-59712e77635c

Virtualization

The last topic, but very important. You may have a PC or Laptop and home, and may need to set up a Virtualized Environment to do all this work.

https://www.virtualbox.org/

https://www.vmware.com/